Meat

HOUSEWIVES' ATTITUDES TO MEAT

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UNIVERSITY OF NEWCASTLE UPON TYNE

DEPARTMENT OF AGRICULTURAL MARKETING

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CONTENTS

INTRODUCTION

This report is based on data obtained in 1970. Consumer research, carried out by this Department in the 1960s pointed increasingly to the need for more knowledge of consumer attitudes to the various meats. Moreover, changes in the underlying strength of demand for different meats call for some explanation of these trends in taste. Thus, the demand for beef, pork and poultry appears to have been increasing, while that for lamb to have been declining. The investigation, reported here, is part of a research project designed to examine the possibilities of promoting sales of lamb. It was therefore necessary to obtain a thorough understanding of the factors which influenced the attitudes of consumers to lamb itself. At the same time, since lamb is sold in competition with other meats, attitudes to it cannot be studied in isolation from those to beef, pork and poultry. This report therefore deals, in some detail, with consumer attitudes to all meats.

Ideally such research should comprehend all types of consumer on a national level. With available resources, however, it had to be confined to housewives making meat purchasing decisions in four towns in the North East of England. The former limitation may not much detract from the validity of the results for more general application, since most meat is still bought by housewives and consumed in the home. The geographical limitation, however, must clearly be remembered in any attempt to attribute the results to the country as a whole. Thus, it is known that different food and meat buying patterns exist in several regions of the UK. The following report should, therefore, be read with these qualifications in mind.

Chapter 1

METHODOLOGY

All assessments of attitude are necessarily indirect. Attitudes can only be apprehended either from what people claim or from behaviour which is judged to be dependent on a particular attitude. Claims by individuals to hold particular attitudes are often suspect, since there may be moral, ethical, social and other reasons for disguising true thoughts, or indeed respondents may be genuinely unaware of or imprecise about their real attitudes. To assess attitudes from behaviour, however, could be even more misleading. Indeed it is to explain and therefore predict behaviour that we need to know attitudes, which is an admission that the same piece of behaviour could result from two or more different attitudes held by the same or by different people.

There are also problems of definition. Thus it may be difficult to distinguish an attitude from a motive or from an opinion. In marketing, however, we are concerned with the resultant behaviour, so that attitudes, motives or opinions are relevant, if they can be studied to predict action. A working definition of an attitude in this context might, therefore, be 'a predisposition to behave in a particular way'.

In relation to particular behaviour any attitude has two dimensions. One is its pertinence; the extent to which it is either central or peripheral to the activity under consideration. The second is strength of the attitude, independent of the particular behaviour with which we are concerned. Thus a man may have a strong preference for red as a colour but may not take this much into account when he buys a motor car. Thus the first problem in this research is to distinguish what are the pertinent attitudes to demand for meat. To attempt to uncover these by direct questions is unlikely to meet with much success. People may state what seem to be sensible reasons for their actions

while deliberately hiding the true reasons. Equally they may be unable to find the words to describe their true reasons even though they would willingly supply them if they could.

The alternative to direct questioning and the method used in this investigation, is the use of the indirect stimuli of motivation research. Intuitively this appears to be more likely to produce valid results. If, for example, word associations with meat items evoke several words connotative with nourishment, it seems reasonable to assume that nutritiousness is an important factor in attitudes to meat. Nevertheless, although such techniques have been well tested in their application to clinical psychology, their marketing applications have not been, and probably cannot be subjected to systematic tests because of the rapidly changing conditions in the market place. Thus, in the example given, nutritiousness may not represent the real base of the attitude. Instead, it may only amount to rationalisation. Whether demand for a particular meat can be increased by promotits nutritional characteristics can only be proved by trying, and then only in the unlikely event that changes in all other important influences on demand for that meat can be identified and measured. Thus, such indirect techniques of market research may only provide good ideas to be tested by judgement or experiment.

As is common in such studies, individual open interviews and group discussions were used to uncover the full range of criteria which housewives might use in considering meat in particular and food or cooking in general. A survey in three areas on Tyneside provided the usual classification data to facilitate the selection of 26 women with a fairly wide range of several characteristics, such as age, family size, socio-economic class and meat eating behaviour.

Two groups discussions were conducted, each with about 8 housewives, starting with a wide interpretation of the topic; the object was to generate a spontaneous discussion from interaction within the group. These interviews were useful in examining

attitudes to cooking and feeding in general rather than to specific meats.

Much more detailed discussion and probing was possible in ten individual open interviews which were next undertaken. Various projective techniques such as sentence completion, word association, story situations and a simplified version of Kelly's repertory grid were used with varying degrees of success[1].

From the two types of interview it was possible to select a set of 74 phrases reflecting criteria on which housewives judged meat, and 73 statements relating to cooking and feeding[2]. A bipolar, seven point scale was developed for each criterion listed. These scales were the main part of a questionnaire used in a base survey. Each respondent was asked either to rate three meats, using the set of scales for each, or to rate their agreement or otherwise with the set of statements. Thus they might have been asked to tick the box nearest to their own idea of steak between, "Pleasant smell" ☐☐☐☐☐☐☐ and "unpleasant smell" With the statements, as for example "meat is a luxury", they were asked to state whether they strongly disagreed, slightly disagreed, neither agreed nor disagreed, slightly agreed, agreed, or strongly agreed. In order that the questions should be understood as widely and as accurately as possible they were related specifically to chicken, shoulder of lamb and beef steak. At this stage the aim was to identify important consumer attitudes to meat meals, not to differentiate between meats; hence the need to cover a broad range of types of meat.

Using the random walk method of sampling, 130 interviews were completed for the meat scales and 153 for the statement scales. These interviews were conducted in six areas around Tyneside selected to encompass a range of income, social class and other

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[1] See Appendix A.

[2] Appendix B for a full list of criteria and statements.

family characteristics.

The scores obtained on the different scales were subjected to factor analysis. This is a technique for reducing by combination the large number of possibly correlated scale measurements to a small number of uncorrelated factors or hypothetical components. This can be done for a chosen number of factors. Thus there emerge several independent factors each derived from one or more of the original scales. Each factor is taken to represent some underlying dimension important in consumer attitudes to meat. From the set of the original scales on which the factor loads most heavily one can conclude what it represents[1].

Naming the factors, unfortunately requires some subjective inference, but the need to make subjective selection of scales at the outset is obviated. If one person says that lamb is thrifty and another that it is cheap, there is no need to judge whether they mean the same and if so which is the better word. Instead the analysis will show whether they combine into a single factor. If they do, then judgement is required to select a name such as

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[1] One of the programmes from the Biomedical Data (BMD) package developed by the Health Sciences Faculty of the University of California was used. The particular programme was BMD 03M which 'performs a principal component solution and orthogonal rotation of the factor matrix'. The programme replaces the main diagonal elements of the correlation matrix with communality estimates. Initial estimates of the communality are given by the squared multiple correlation between a given variable and the rest of the variables in the matrix. It also employs an iteration procedure for improving the estimates of communality, i.e. the number of factors to be extracted from the original or unreduced correlation matrix is determined. The main diagonal elements of the correlation matrix are then replaced with initial estimates of communalities (the R^2 estimates). Next the same number of factors from the reduced matrix are extracted, and the variances accounted for by these factors become new communality estimates. The diagonal elements are then replaced with these new communalities. This process continues until the differences in the two successive communality estimates are negligible.

"economy" to label the factor. A further advantage is that factor analysis can yield a more detailed description of an attitude. Thus, based on earlier work in the Department, tenderness might be expected to loom large in consumers' attitudes to meat. The analysis might show that it is a component of a taste or digestibility factor. Alternatively the label "tenderness" might appear appropriate for a factor onto which scales dealing with softness, subtlety, closeness of grain and gristle loaded heavily.

Table I lists the twelve factors to which the analysis reduced the 74 meat scales and indicates the 3 scales which loaded most heavily on each factor. From this list 24 scales were selected so that interviews did not take up too much time. In most cases the two scales which loaded most heavily on each factor were chosen. When these two scales had very similar meanings or if interviewers had reported difficulties in completing one of them, the third highest loading scale was substituted for one or other. The adequacy of the 24 scales selected, in reflecting the 12 factors as originally identified, was subjected to a series of tests[1]. No changes were found to be necessary, and the extremes of each scale are listed in Appendix C as part of the complete questionnaire.

A similar procedure was used to handle the statements relating to food and cooking. The computer programme results suggested at least 16 factors as shown in Table II. However, when different numbers of factors were extracted the results lent themselves to different interpretations. This may be because of the widely varying content of the different attitude scales represented by the statements, which ranged from meat and feeding to buying and

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[1] These involved a re-run of the factor analysis, extracting 12 factors from the scores respondents gave to the chosen 24 scales and comparing the results with the analysis of all scales. Alternatively the factor mean score for each meat can be calculated on the basis of the 24 scales and the results compared with mean scores based on 74 scales. In both cases only very slight differences were observed.

Table I: Major Factors for Attitudes to Meat (3 most heavy loadings are listed with numerical values in parenthesis)

Factor			
1	Good flavour (0.79)	*Pleasant taste (0.68)	Full of goodness (0.66)
2	Thrifty (0.82)	Cheap (0.78)	*Economical (0.74)
3	Good for fancy cooking (0.56)	Modern (0.54)	*No fat (0.53)
4	People can eat fat hot (0.51)	People can eat fat cold (0.44)	*Crispy fat (0.28)
5	Makes a good cold meat (0.50)	Can easily use up leftovers (0.42)	*A summer meat (0.37)
6	Desk workers need (0.77)	Manual workers need (0.74)	*Brain workers need (0.60)
7	Not greasy fat (0.70)	*Not sickly fat (0.67)	No fat (0.32)
8	*Smells appetising when cooking (0.58)	Smells appetising when cooked (0.50)	Looks appetising cooked (0.33)
9	*Soft (0.55)	Very tender (0.53)	Digestible (0.50)
10	Subtle taste (0.35)	*Tangy (0.33)	Pleasant smell (0.27)
11	Available in supermarket (0.53)	Would buy in supermarket (0.49)	*Makes a good cold meat (0.23)
12	*Plenty of cutting (0.63)	No waste (0.51)	Easy to carve (0.51)

*Excluded in final selection of 2 scales per factor.

Table II: Major Factors for Attitudes to Food and Cooking
(3 most heavy loadings are listed)

Factor			
1	People generally eat too many foods that are bad for them	I think most women have difficulty in thinking of what to give their families	When entertaining I choose a meat that is easy to cook
2	The trouble with a joint is the time it takes to cook	You can't always be certain that a joint is cooked all the way through	You can never be sure how a piece of meat will turn out
3	I occasionally like to try something different	I like trying new dishes	I try to vary the meat we have
4	I like to buy my meat where the people know me	About the only way to get good meat is to find a good butcher and stick to him	Small butcher is cleaner
5	Meat cooked on the bone has more flavour than boned meat	I prefer to buy meat on the bone	Meat is an expensive necessity
6	Meat is necessary for a good diet	Meat is a necessary part of the diet	Meat is the basis of a meal
7	My family think I'm a good cook	In summer salads save a lot of cooking	Cooking is fun, it's the clearing up that's the drag
8	It is not easy to get many different sorts of meat	You don't know how long meat has been in the supermarket	When prices are not displayed in butchers people suspect they are on the fiddle
9	What meat I can buy is limited by what my husband likes	Fish is a poor substitute for meat	Beef has so little waste that it is really no more expensive than lamb
10	If my family enjoy a meal I'm not all that bothered about whether it is nourishing	Supermarket meat is not as good as the traditional butcher's	I know many of the things I like are not good for me but I eat them nevertheless
11	Men are out at work all day and deserve a good meal	My family appreciate good food, well cooked	Magazine recipes are too expensive and include ingredients most people haven't got
12	Small butcher knows what you want	Young people are more concerned with cleanliness and hygiene than older people	Poorer people eat lamb more often than beef
13	After you've cooked a meal you really don't want to eat it	I buy meat when I see something I like	Small butcher is cleaner
14	Meat is a necessary part of the diet	What meat I buy is limited by what my husband likes	When entertaining I choose a meat that is easy to cook
15	Meat needs a bit of fat in the cooking	Meat with some fat has more flavour	Once I have found a piece of meat I buy the same thing week after week
16	If eating out I choose something which I cannot afford at home	In buying meat I look mainly for price	Cheaper cuts are just as nourishing

cooking. It was considered appropriate, therefore, to select a restricted list of statements, some which formed clear factors among the 16, and some which seemed likely to be useful in the projected analysis.

It was now possible to prepare questionnaires for a large scale survey of housewives' attitudes in North East England. Two pairs of approximately matched towns were selected for the investigation; Sunderland and Middlesbrough as large industrial complexes; Hexham and Morpeth as medium sized market centres. Populations and planned sample sizes are detailed in Table III.

The two smaller towns were divided into 5 segments each, and the two larger into 10 each. Standard random walk interviews produced 1518 completed usable questionnaires; 583 from Sunderland, 548 from Middlesbrough, 193 from Hexham and 194 from Morpeth. It is on these surveys that the following analysis and discussion are based.

Table III: Population and Samples in the four Towns Surveyed

	Sunderland	Middlesbrough	Hexham	Morpeth
Population	187,000	157,000	10,000	14,000
Households (1 : 4.2 people)	44,500	37,000	2,300	3,300
Sample	600	500	200	200
% of Households	1.3	1.3	9.0	6.0

Chapter 2

ATTITUDE ANALYSIS

The scores on the 24 scales were factor analysed for each of the four meats[1]. This analysis established what are the most important factors contributing to a total attitude to each meat. It provided the rating of each meat on each factor by each respondent and hence a mean score for each meat on each factor. It would have been possible to derive factors for meat in general and score each meat on these same factors. Alternatively, each meat could have been taken separately, factors generated specifically for each, and each meat then scored on its own factors and on those of the other meats. The latter method was adopted. Thus we can get, for example, a lamb score on each of the twelve beef factors, and a beef score on each of the twelve lamb factors. Therefore, we have for each meat four different sets of scores each showing the meat from slightly different standpoints.

The results discussed below are based on combined data from the four towns. The mean scores on the 24 scales for each meat are presented in Figure I and Table IV. Low scores indicate favourable and high scores unfavourable consumer reactions.

The new factors derived from the larger sample of 1,500 respondents in the four towns appear in Table V.

Parts a, b, c and d of Table V show the scales contributing to each of the important factors for each meat, together with the loading of each scale on each factor. Twelve factors accounted for between 70% and 75% of the common variance of the rotated factors on all four meats (Table VI). Each factor over

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[1] The factoring programme used was the Statistical Package for the Social Sciences. N. H. Nie, D. Bent and C. H. Hall. The change to this programme from BMD was made both because of computational advantages and lower running costs.

FIG I: MEAN NEW DATA SCORES FOR EACH MEAT

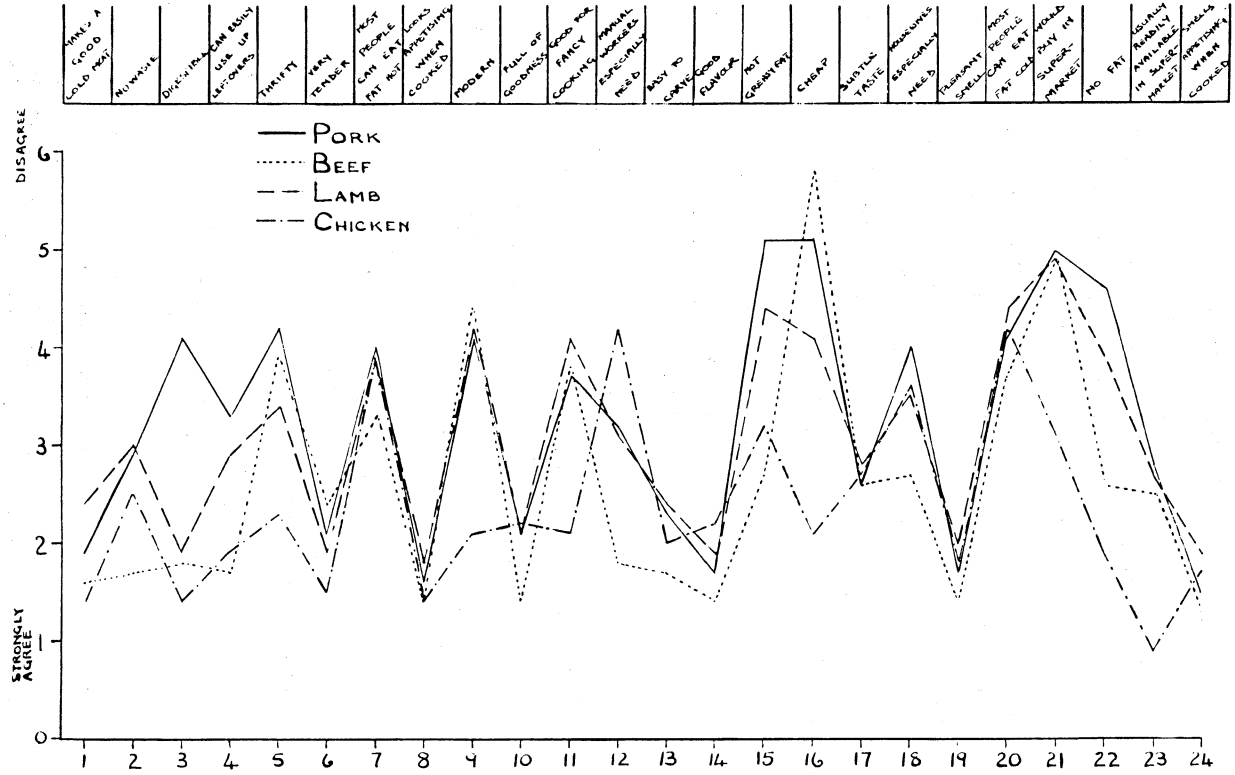


Table IV: Mean Raw Data Scores for each Meat on the 24 most important Scales

	Pork	Beef	Lamb	Chicken
Makes a good cold meat	1.9	1.6	2.4	1.4
No waste	2.9	1.7	3.0	2.5
Digestible	4.1	1.8	1.9	1.4
Can easily use up leftovers	3.3	1.7	2.9	1.9
Thrifty	4.2	3.9	3.4	2.3
Very tender	2.1	2.4	1.9	1.5
Most people can eat fat hot	4.0	3.3	3.9	3.9
Looks appetising when cooked	1.6	1.4	1.8	1.4
Modern	4.1	4.4	4.1	2.1
Full of goodness	2.1	1.4	2.1	2.2
Good for fancy cooking	3.7	3.8	4.1	2.1
Manual workers especially need	3.2	1.8	3.1	4.2
Easy to carve	2.3	1.7	2.4	2.0
Good flavour	1.7	1.4	1.9	2.2
Not greasy fat	5.1	2.7	4.4	3.2
Cheap	5.1	5.8	4.1	2.1
Subtle taste	2.6	2.6	2.8	2.7
Housewives especially need	4.0	2.7	3.5	3.6
Pleasant smell	1.7	1.4	2.0	1.8
Most people can eat fat cold	4.1	3.7	4.4	4.2
Would buy in a supermarket	5.0	4.9	4.9	3.1
No fat	4.6	2.6	3.9	1.9
Usually readily available in supermarket	2.8	2.5	2.7	1.4
Smells appetising when cooked	1.5	1.3	1.9	1.7

1 = Strongly Agree
2 = Agree
3 = Slightly Agree
4 = Neither Agree or Disagree
5 = Slightly Disagree
6 = Disagree
7 = Strongly Disagree

Table V: Major Factors for Pork, Beef, Lamb and Chicken

(a) PORK

Factors	Loading	Mean Score	
Smells appetising when cooked	0.85760	1.5	
Pleasant smell	0.81662	1.7	
Looks appetising when cooked	0.65525	1.6	
Good flavour	0.64469	1.7	Appetising
Manual workers especially need	0.84527	3.2	
Housewives especially need	0.81238	4.0	Nutritious
Greasy fat	0.79232	5.1	
No fat	0.78727	4.6	Fat
Usually readily available in supermarket	0.81978	2.8	A supermarket buy
Would buy in supermarket	0.79779	5.0	
Digestible	0.81424	4.1	
Can easily use up leftovers	0.37856	3.3	
No waste	0.35693	3.0	Digestibility
Cheap	0.87825	5.1	
Thrifty	0.75160	4.2	Economical
Most people can eat hot fat	0.80257	4.0	
Most people can eat cold fat	0.72293	4.1	Edible fat
Makes a good cold meat	0.76290	1.9	
Can easily use up leftovers	0.48702	3.3	
No waste	0.52000	3.0	Re-use
Good for fancy cooking	0.87902	3.7	
Can easily use up leftovers	0.54918	3.3	Versatility
Subtle taste	0.87273	2.6	
Full of goodness	0.36462	2.1	Taste
Easy to carve	0.76460	2.3	
Very tender	0.51185	2.1	Tender
Modern	0.92385	4.1	
Good for fancy cooking	0.20909	3.7	Modern

(b) BEEF

Factors	Loading	Mean Score	
Most people can eat hot fat	0.83291	3.3	
Most people can eat cold fat	0.81620	3.7	Edible fat
Cheap	0.86032	5.8	
Thrifty	0.74678	3.9	Economical
Usually readily available in supermarket	0.81690	2.5	A supermarket
Would buy in supermarket	0.80630	4.9	buy
Makes a good cold meat	0.86674	1.6	
Can easily use up leftovers	0.46818	1.7	
Full of goodness	0.33223	1.4	Re-use
Housewives especially need	0.77663	2.7	
Manual workers especially need	0.80902	1.8	Nutritious
No fat	0.73405	2.6	
No waste	0.62877	1.7	
Can easily use up leftovers	0.39915	1.7	
Easy to carve	0.37227	1.7	Waste
Smells appetising when cooked	0.81055	1.3	
Pleasant smell	0.71455	1.4	
Looks appetising when cooked	0.59837	1.4	
Good flavour	0.43718	1.4	Appetising
Modern	0.91589	4.4	
Good for fancy cooking	0.27358	3.8	Modern
Very tender	0.77116	2.4	
Digestible	0.64504	1.8	
Easy to carve	0.60689	1.7	Tender
Subtle taste	0.92112	2.6	Taste
Greasy fat	0.83433	2.7	
No fat	0.37021	2.6	Fat
	-0.46627	1.3	Use for fancy
	0.73937	3.8	cooking

(c) LAMB

Factors	Loading	Mean Score	
Smells appetising when cooked	0.87801	1.8	
Pleasant smell	0.85146	2.0	
Looks appetising when cooked	0.57264	1.8	
Good flavour	0.52647	1.9	Appetising
Would buy in supermarket	0.81954	4.9	
Usually readily available in supermarket	0.80939	2.7	A supermarket buy
Cheap	0.88453	4.1	
Thrifty	0.77426	3.4	Economical
Manual workers especially need	0.84126	3.1	
Housewives especially need	0.83689	3.5	Nutritious
Can easily use up leftovers	0.75352	2.9	
Makes a good cold meat	0.75180	2.4	
No waste	0.66252	3.0	Re-use
Most people can eat fat hot	0.77166	3.9	
Most people can eat fat cold	0.71877	4.4	Edible fat
No fat	0.84691	3.9	
Greasy fat	0.75586	4.4	Fat
Very tender	0.73547	1.9	
Digestible	0.70467	1.9	
Good flavour	0.50925	1.9	
Full of goodness	0.59029	2.1	Tender
Modern	0.93501	4.1	Modern
Subtle taste	0.88437	2.8	Taste
Good for fancy cooking	0.89667	4.1	
Most people can eat fat cold	0.25573	4.4	
Can easily use up leftovers	0.25250	2.9	Versatile
Easy to carve	0.88519	2.4	
No waste	0.28967	3.0	
Very tender	0.18095	1.9	Tender

(d) CHICKEN

Factors	Loading	Mean Score	
Can easily use up leftovers	0.78718	1.8	
No waste	0.69603	2.5	Re-use
Smells appetising when cooked	0.88118	1.7	Appetising
Pleasant smell	0.86356	1.8	smell
Most people can eat fat hot	0.84059	3.9	
Most people can eat fat cold	0.82053	4.2	Edible fat
Manual workers especially need	0.84373	4.2	
Housewives especially need	0.80918	3.6	Nutritious
Easy to carve	0.80443	2.0	
Very tender	0.50500	1.3	
Looks appetising when cooked	0.34164	1.4	Tender
Cheap	0.90127	2.1	
Thrifty	0.73808	2.3	Economical
Usually readily available in supermarket	0.82247	1.4	A supermarket
Would buy in supermarket	0.74801	3.1	buy
No fat	0.83710	1.9	
Greasy fat	0.65684	3.2	Fat
Subtle taste	0.78237	2.7	
Good flavour	0.67538	2.2	
Full of goodness	0.60983	2.2	Taste
Makes a good cold meat	0.69388	1.4	
Digestible	0.68369	1.4	
Very tender	0.44209	1.5	Cold meat
Modern	0.87997	2.1	
Appetising	0.38488	1.4	Modern
Good for fancy cooking	0.92623	2.1	Use for fancy cooking

12 accounted for very little more of the variance. Therefore, 12 factors are shown for each meat, since housewives' attitudes to any of the four meats can be largely explained by taking the appropriate group of twelve factors from the 16 different factors which were derived in total. Each factor is composed of slightly different scales for different meats.

In order to compare attitudes between meats, the mean scores for each scale contributing to each of the 12 factors for each of the four meats were derived. This produced scores for lamb, beef, pork and chicken on each of their own factors. Using the same scales the means of the scale scores for each of the factors were calculated for each of the other meats. Thus, for example, it is possible to compare directionally scores on the 12 most important factors for lamb with scores on the same factors for beef, pork and chicken. These are given in Tables VIIa, b, c and d at Appendix D.

The factors have been named, but selection of suitable names obviously required subjective judgement and in some cases it was difficult to give meaningful titles.

Factors

These factors or attitudes are discussed below.

The three carcase meats were considered *appetising* both in appearance and smell although the degree to which this was apparent varied. Beef and then pork were more favoured than lamb. Chicken, however, did not have a visual appetising component (looks appetising when cooked) to the 'appetising' factor, but housewives reacted very favourably to the scales pleasant smell and smells appetising when cooked.

This order of preference was duplicated in the taste factor where the subtlety of taste of beef was especially marked. This factor was more easily explained from the analysis of the chicken

Table VI: Cumulative Proportion of the Total Variance Accounted for by 12 Factors for Pork, Beef, Lamb and Chicken

Factor	(a) Pork	(b) Beef	(c) Lamb	(d) Chicken
1	22.4	21.8	24.7	20.5
2	30.3	28.8	32.3	27.9
3	35.9	34.9	38.4	34.1
4	41.2	40.2	44.0	39.9
5	46.2	45.3	49.3	45.2
6	50.8	50.0	53.7	49.9
7	55.2	54.3	57.9	54.1
8	59.3	58.2	61.8	58.1
9	63.0	61.9	65.5	61.9
10	66.6	65.4	68.8	65.5
11	69.8	68.6	72.0	69.0
12	72.9	71.7	75.1	72.4

data. A combination of subtle taste, good flavour and full of goodness suggested a factor of *fullness of taste* perhaps indicating the unique taste that places meat on a different level from the other protein competitors - fish, cheese and eggs. Again beef had the lowest score, indicating the most favourable response, and chicken the highest, indicating a less favourable response.

Nutritiousness is important in relation to housewives' attitudes towards meat, and again beef scores most favourably. It is evident that housewives believed that working men specially 'needed' beef if they were to have a satisfactory diet; beef is the sustainer whereas chicken is more a woman's meat! Surprisingly pork scores relatively unfavourably on this factor and lamb, although the second most nourishing, is much weaker than beef.

There are two types of fat factors. Firstly, *edible fat* which is a composite of 'most people can eat fat hot' and 'most people can eat fat cold'. It is apparent that no kind of fat is actually liked whether it be hot or cold but once again beef fat is more acceptable in either the hot or cold form. Pork and lamb fat are generally disliked, in particular, cold lamb fat. The second fat factor can be named *fat* or *fattiness* and will inevitably be linked to the former. Lamb and particularly pork were thought not only to have greasy fat but also more fat than either beef or chicken. The mean score of 4.8 for pork on this factor was the second highest of any factor on all 4 meats, indicating a particularly unfavourable attitude.

The factor *supermarket buy* is an awkward composite, and has two distinct parts. Firstly availability of meat in the supermarket and secondly a statement of whether the housewife would actually buy her meat there. Chicken is certainly considered the most available and beef, lamb and pork, respectively, to a lesser extent. However, with the exception of chicken the housewife prefers not to buy her meat from the supermarket. Throughout the

survey there was strong evidence to suggest that housewives associated meat quality with the traditional butcher. Analysis of the 16 statements concerning attitudes to food and cooking, shown later in this section, corroborates this.

The factor named *economical* is made up of the two scales cheap and thrifty. Chicken scores most favourably on this factor and beef scores the least favourably. The former is thought to be both a cheap and a thrifty meat. The latter, however, is thought to be somewhat thrifty even though it is considered a very expensive meat. The image of lamb improves with this factor, in that although cheapness and thriftiness are not strong positive attributes they are more favourable than for either beef or pork. Pork scores most unfavourably on thriftiness of all the meats.

The factor *modern* varies slightly in scale structure for the 4 meats. With beef and pork the scales modern and good for fancy cooking represent the factor, but for lamb only the scale modern applies, and the chicken factor is composed of modern and looks appetising when cooked. However, for all four meats the scale 'modern' is very important. The chicken image is by far the most modern, those of pork and lamb rather indeterminate and that of beef more traditional.

The *tender* factor also differs slightly in its scale make-up from meat to meat. The basic scale is 'very tender' but whereas for beef, digestible and easy to carve supplement this scale to form the factor, for pork the scale digestible is not apparent. In this case digestible is of such importance that it forms a *digestibility* factor that is unique to pork. The mean scores for the four meats on this digestibility factor for pork show that it is considered by far the most indigestible whilst lamb, beef and particularly chicken, score favourably in this respect. For lamb the *tender* factor has the 2 scales tender and digestible found in the beef factor, with in addition two scales, good flavour and

full of goodness, but does not have the scale easy to carve. The latter seems, in the case of lamb, to be of such importance that it forms virtually a one scale factor.

Chicken is thought the tenderest meat followed by lamb, pork and beef. The favourable score for the tenderness characteristic on pork is surprising since one might assume that digestibility and tenderness were correlated. Obviously for pork this is not the case.

Chicken and beef have a common *good for fancy cooking* factor. The former scores very favourably with respect to this whilst housewives, perhaps because beef is a more traditional meat, did not favour it on this score. Lamb and pork share a similar factor to the above which is named *versatility*. This incorporates the two scales good for fancy cooking and can easily use up leftovers. Both meats are considered rather disappointing with respect to these particular attributes.

All four meats share a *re-use* factor but again the scales that contribute towards each vary slightly. In fact lamb and pork have identical scales but the scores on the scales differ. Pork is thought the better cold meat and lamb scores more favourably for using up of leftovers. However both score disappointingly with regard to the scale, no waste. The picture emerges of two meats that in comparison to chicken and especially beef are wasteful and rather staid.

The final factor on beef is a composite of no fat, no waste, easy to carve, and can easily use up leftovers, and represents attitude towards *waste*. This in fact is very similar to the versatility factor. Beef has a good image as a non-wasteful meat, i.e. it is relatively lean and therefore there is little waste. However, lamb and particularly pork are considered much more wasteful meats.

Finally chicken has a unique factor that combines the scales, makes a good cold meat, digestible and tender. This has been

called the *cold meat* factor. It would appear to be similar to the re-use factor present in attitudes to all four meats. However the stress is specifically on digestibility and use as a cold meat as opposed to re-use after one meal has been taken from the meat. With respect to this factor chicken scores very favourably, having the second lowest mean factor score of any factor on any meat.

Summary

It is now possible to summarise housewives' attitudes towards the four meats. *Pork* is considered an appetising and reasonably nourishing meat, although not in the same class as beef, and is both tasty and tender. It is thought well of as a cold meat. However, it is also believed to be rather greasy and overfat, indigestible, not particularly versatile, and finally, rather expensive.

Lamb is the least appetising of all the four meats although this is a relative statement as all four meats score favourably. Next to beef it is the most nourishing meat but is rather fatty and this is not considered pleasant to eat, especially cold. It is not a versatile meat and is rather difficult to carve. However on the positive side it is considered a comparatively thrifty meat, second only to chicken, and of all the four meats it has the best attitude connotations of tenderness/digestibility, i.e. the kind of meat that children and invalids could eat and digest easily.

Chicken is the most modern meat which is readily available in a supermarket and housewives do not feel as strongly about buying a chicken from this source as they would about buying any of the three carcase meats. It has a very appetising smell when being cooked or eaten, is the tenderest, leannest and cheapest of all the four meats and can easily be used up in a second meal. It is both the best for use as a cold meat and for use in fancy

cooking. However, it is the least nourishing of the meats and has least taste.

Beef is thought the most nourishing and appetising meat and has the greatest potential for re-use in a second meal. It is least wasteful and has least fat. Indeed beef fat, hot or cold, is preferred to any other sort of fat. Although not the tenderest meat it is considered easy to carve and very digestible. It has a traditional meat image. However, it is thought the most expensive meat and is not considered to be very thrifty.

Statements Analysis

The mean raw scores on the 16 scales measuring attitudes to food and cooking are shown in Table VIII. In this case high scores represent strong agreement with the statements listed and low scores represent strong disagreement. Housewives consider that their families think them good cooks and agree strongly that meat is both necessary for a good diet and the basis of a meal, but is an expensive necessity. They also profess to vary the meat diet and try something different from time to time. Sticking to a good butcher once they had found one and getting to know the butcher were considered important preconditions for buying good meat. The statement 'supermarket meat is not as good as traditional butchers' elicited reasonable agreement but perhaps not as strong a response as would have been expected. Respondents agreed strongly that tinned meats were expensive and thought that meat cooked on the bone had more flavour than boned meat. They disagreed with the statement 'fish is a poor substitute for meat' and were not disgruntled because a joint of meat takes a long time to cook.

The scores on the 16 statements were then factor analysed using the same procedure as for the 24 meat scales. The results

Table VIII: Mean Raw Data Scores for the 16 Scales on Attitudes to Food and Cooking

(1)	My family think I'm a good cook	5.9
(2)	You can never be sure how a piece of meat will turn out	4.5
(3)	Meat is necessary for a good diet	5.8
(4)	Cooking is fun	4.7
(5)	Meat cooked on the bone has more flavour than boned meat	5.4
(6)	Meat is the basis of a meal	5.8
(7)	The trouble with a joint is the time it takes to cook	3.6
(8)	I try to vary the meat we have	5.7
(9)	Supermarket meat is not as good as traditional butchers	5.0
(10)	Fish is a poor substitute for meat	3.3
(11)	About the only way to get good meat is to find a good butcher and stick to him	5.4
(12)	Meat is an expensive necessity	5.8
(13)	I like to try something different occasionally	5.6
(14)	What meat I can buy is limited to what my husband likes	4.5
(15)	I like to buy my meat where people know me	5.2
(16)	Tinned meats are expensive	5.5

1 = Strongly disagree
2 = Disagree
3 = Slightly disagree
4 = Neither agree or disagree
5 = Slightly agree
6 = Agree
7 = Strongly agree

The results are shown in Table IX. In this case only 4 factors are illustrated as these accounted for over 70% of the total variance on the statement scores, Table X, and subsequent factors added very little. These factors have been named as, *attitude towards the butcher; meat importance; experimenting;* and *confidence*.

As was suggested from a brief explanation of the raw mean data the relationship between meat quality and sympathetic butcher is marked. The better the buyer knows her butcher and the more traditional the shop the more she expects her meat to be of high quality. The second factor emphasises the great importance that the housewife attaches to meat for her family's diet. The third factor suggests that experimenting and varying the meat diet is not only important but actually carried out by many housewives. However, how much of this is, in fact, wishful thinking rather than real practice is open to debate. Finally a confidence factor was generated. A factor mean score of 4.0 would suggest that many housewives are a little unsure as to their ability to cope with all cooking situations.

Table IX: Major Factors for Attitudes to Food and Cooking

Factors	Loading	Mean Score	Attitude to
About the only way to get good meat is to find a good butcher and stick to him	0.82350	5.4	
I like to buy my meat where people know me	0.72424	5.2	
Supermarket meat is not as good as traditional butchers	0.56048	5.0	Butcher
Meat is necessary for a good diet	0.68659	5.8	Meat Importance
Meat is the basis of a meal	0.67207	5.8	
I try to vary the meat we have	0.66901	5.7	
I like to try something different occasionally	0.64361	5.6	Experimenting
You can never be sure how a piece of meat will turn out	0.59326	4.5	
The trouble with a joint is the time it takes to cook	0.44475	3.6	Confidence

Table X: Cumulative Proportion of Total Variance Accounted for by the Major Factors for Attitudes to Food and Cooking

Factor	Cumulative Proportion of Variance
1	30.6
2	52.3
3	64.4
4	73.7

Chapter 3

BUYING BEHAVIOUR

General

The buying behaviour of housewives in the four surveyed towns was analysed using Section C of the final questionnaire, Appendix C. Three questions were asked:

'On what days of the week did you buy meat or poultry last week?'

'What sort of meat or poultry did you buy then?'

and 'About how much did you spend on that meat and poultry?'

There were inevitable problems in coding the amounts specified from this last question. The situation arose when a respondent would state, for example, 'Well, I bought 2 lamb chops, 1 lb sausage, and some liver and it came to about 65p.' Thus it was necessary to approximate the price for each individual purchase.

Tables XI and XII show the buying frequency for individual cuts and the expenditure on individual cuts by daily periods respectively. Seven per cent of all weekly purchases were made on a Monday, just over 20% on a Tuesday, about 14% for each day on Wednesday, Thursday and Friday and about 29% of all purchases on a Saturday. Monday's low percentage can be attributed to housewives re-using the joint from the weekend and generally finishing off leftovers. Purchases are high on Tuesday as there is a need to make a change from re-hashes. The housewife appears to economise on Wednesday, Thursday and Friday so that the housekeeping will last until the weekend and predictably Saturday has the highest purchases as the housewife buys in meat for the weekend. Over 90% of all purchases on Tuesday are accounted for by seven cuts of meat, i.e. steak, stewing steak, mince, lamb chops, pork chops, liver and sausages. However on a Saturday there is a greater variety of purchases as more joints of meat are bought.

Table XI: Meat Buying Habits

MONDAY		TUESDAY		WEDNESDAY		THURSDAY	
Meat	% of Day's Purchases	Meat	% of Day's Purchases	Meat	% of Day's Purchases	Meat	% of Day's Purchases
Mince	25.3	Mince	22.1	Mince	20.3	Lamb Chops	18.8
Beef Steak	16.1	Stewing Steak	17.4	Stewing Steak	17.5	Mince	16.8
Lamb Chops	14.5	Lamb Chops	16.7	Lamb Chops	15.3	Stewing Steak	15.8
Stewing Steak	10.2	Beef Steak	13.3	Beef Steak	14.4	Beef Steak	15.4
Liver	9.0	Liver	10.5	Liver	9.4	Liver	10.9
Sausages	6.2	Pork Chops	6.2	Pork Chops	5.5	Pork Chops	5.7
Pork Chops	5.9	Sausages	4.5	Sausages	5.3	Sausages	4.2
Chicken	2.8	Chicken	2.4	Chicken	3.9	Chicken	2.8
Other Pork	1.9	Beef Shin	.7	Other Offals	1.2	Other Pork	1.1
Other Beef	1.2	Leg of Lamb	.7	Other Pork	1.0	All other	1.1
Other Lamb	.9	Mutton Chops	.7	Belly Pork	.9	Other Beef	.9
Mutton Chops	.9	Other Pork	.7	Beef Shin	.7	Shoulder of Lamb	.9
Leg of Lamb	.6	All other	.7	Beef Joint	.6	Belly Pork	.9
Shoulder of Lamb	.6	Belly Pork	.5	Mutton Chops	.6	Beef Joint	.7
Other Offals	.6	Other Offals	.5	Rump	.5	Leg of Lamb	.7
All other	.6	Rump	.4	Sirloin	.5	Rump	.6
Rump	.3	Other Beef	.4	Other Beef	.5	Sirloin	.3
Topside	.3	Beef Joint	.2	All other	.5	Brisket	.3
Beef Shin	.3	Lap of Lamb	.2	Other Lamb	.4	Beef Shin	.3
Whole Steak	.3	Other Mutton	.2	Leg of Lamb	.3	Other Lamb	.3
Lap of Lamb	.3	Sirloin	.1	Brisket	.2	Mutton Chops	.3
Neck of Mutton	.3	Topside	.1	Lap of Lamb	.1	Other Mutton	.3
Other Mutton	.3	Silverside	.1	Best End of Neck	.1	Other Offals	.3
Belly Pork	.3	Brisket	.1	Shoulder of Lamb	.1	Topside	.1
Venison	.3	Loin of Lamb	.1	Neck of Mutton	.1	Loin of Lamb	.1
		Fillet of Lamb	.1	Other Mutton	.1	Fillet of Lamb	.1
		Best End of Neck	.1			Lap of Lamb	.1
		Shoulder of Lamb	.1			Breast of Lamb	.1
		Shoulder of Mutton	.1			Leg of Pork	.1
		Leg of Pork	.1				
Total	100	Total	100	Total	100	Total	100
% of Total Weekly Purchases	7.0	% of Total Weekly Purchases	21.62	% of Total Weekly Purchases	13.98	% of Total Weekly Purchases	14.69

Table XI: Meat Buying Habits (cont'd)

FRIDAY		SATURDAY		COMPLETE WEEK	
Meat	% of Day's Purchases	Meat	% of Day's Purchases	Meat	% of Day's Purchases
Lamb Chops	12.7	Chicken	15.8	Mince	13.9
Beef Steak	12.3	Beef Joint	14.8	Lamb Chops	12.4
Chicken	11.7	Beef Steak	7.5	Beef Steak	12.1
Mince	6.9	Leg of Lamb	5.8	Stewing Steak	11.2
Liver	6.7	Sirloin	5.3	Chicken	7.9
Stewing Steak	6.1	Other Pork	5.0	Liver	7.1
Sausages	5.3	Shoulder of Lamb	4.9	Beef Joint	5.3
Beef Joint	5.2	Other Lamb	4.6	Pork Chops	4.5
Pork Chops	5.0	Mince	4.0	Sausages	4.4
Leg of Lamb	2.8	Stewing Steak	3.9	Other Pork	2.4
Sirloin	2.7	Lamb Chops	3.9	Leg of Lamb	2.4
Topside	2.5	Topside	3.4	Sirloin	2.0
Brisket	2.5	Sausages	3.0	Shoulder of Lamb	1.9
Other Pork	2.5	Fillet of Lamb	3.0	Other Lamb	1.7
All other	2.5	Brisket	2.7	Topside	1.4
Shoulder of Lamb	2.1	Silverside	2.5	Brisket	1.2
Fillet of Lamb	1.8	Rump	2.1	All other	1.2
Silverside	1.6	Pork Chops	1.6	Fillet of Lamb	1.1
Belly Pork	1.3	All other	1.4	Silverside	1.0
Other Lamb	1.3	Liver	1.3	Rump	.9
Rump	.7	Leg of Pork	.9	Belly Pork	.7
Other Beef	.7	Belly Pork	.5	Other Beef	.6
Shoulder of Mutton	.6	Other Beef	.5	Other Offals	.5
Loin of Lamb	.4	Other Mutton	.4	Beef Shin	.4
Best End of Neck	.4	Other Offals	.3	Mutton Chops	.3
Leg of Pork	.4	Shoulder of Mutton	.2	Leg of Pork	.3
Other Offals	.3	Beef Shin	.1	Lap of Lamb	.2
Beef Shin	.2	Loin of Lamb	.1	Shoulder of Mutton	.2
Lap of Lamb	.2	Lap of Lamb	.1	Other Mutton	.2
Leg of Mutton	.2	Breast of Lamb	.1	Loin of Lamb	.1
Neck of Mutton	.2	Best End of Neck	.1	Breast of Lamb	.1
Mutton Chops	.1	Leg of Mutton	.1	Best End of Neck	.1
Other Mutton	.1	Mutton Chops	.1	Leg of Mutton	.1
				Neck of Mutton	.1
				Venison	.1
Total	100	Total	100	Total	100
% of Total Weekly Purchases	14.05	% of Total Weekly Purchases	28.94		

Table XII: Percentage of Daily Expenditure on Individual Meat Cuts

Meat	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
Beef Joint		.3	1.1	1.2	7.8	17.8	9.5
Rump	.3	.5	.6	1.2	1.0	2.5	1.6
Sirloin		.3	.7	.6	4.4	6.8	3.9
Topside	.7	.6		1.1	5.5	5.0	3.2
Silverside		.1			2.6	3.3	1.9
Brisket		.2	.7	.3	3.5	3.1	2.1
Beef Steak	20.3	16.3	17.1	18.2	10.3	5.3	10.9
Stewing Steak	10.0	17.4	18.3	15.5	4.2	1.8	7.9
Mince	22.6	18.0	17.0	12.0	4.4	1.7	8.1
Other Beef	1.0	1.0	1.0	.8	.3	.4	.6
Fillet of Lamb		.2		.4	2.8	2.9	1.9
Leg of Lamb	1.8	1.7		1.7	4.3	8.3	4.9
Shoulder of Lamb	.2	.3	.3	1.4	2.6	4.6	2.7
Lamb Chops	14.3	16.8	16.2	18.9	8.8	2.0	9.0
Other Lamb	1.3	.3	1.1	1.1	2.2	5.5	3.1
Other Mutton	1.4	1.0	.7	.5	1.5	1.9	1.0
Pork Chops	5.4	6.8	5.8	6.0	3.7	.5	3.3
Other Pork	2.3	2.4	2.2	2.2	5.5	8.0	5.4
Liver	6.6	7.3	7.0	8.5	3.1	.4	3.7
Sausages	3.6	2.7	2.7	2.2	2.1	1.1	1.9
Chicken	5.8	4.1	6.8	4.5	14.3	15.2	11.1
All other	2.4	1.7	.7	1.7	5.1	1.9	2.3
Total	100	100	100	100	100	100	100
% of Total Meat Expenditure	4.4	15.1	9.7	10.2	15.8	44.8	

Daily expenditure patterns do not duplicate daily buying patterns. About 45% of total meat expenditure is accounted for by purchases on a Saturday. Tuesday and Friday each account for 15%. The former being attributable to buying the quick cooking, smaller cuts and the latter to buying in the weekend joint early. Of all meats weekly expenditure was highest on chicken (11% of total) followed by steak (just under 11%) and beef joints (about 9½%). Of all meat purchases 50.9% were beef, 21.4% lamb and 8.1% pork.

An outstanding feature of buying behaviour is that about 75% of all purchases over the week consist of only 8 separate cuts, the 7 that accounted for most purchases on Tuesday plus chicken. This does not present a picture of the imaginative housewife continually varying the type of meat meal she prepares as is suggested from looking at the factor indicating attitude towards experimentation (Table XI). Thus it seems that even if the housewife has a desire to vary her meals, in practice this is far from her actual behaviour.

Age and Family Size

The average number of meat purchases per week was 3.18. However this figure varied according to age and size of family, Tables XIII and XIV. The age group between 25 and 55 with a family size of 4 or more individuals predictably purchased the most meat and conversely housewives over 55 with small families purchased the least.

Age of housewife has an important implication for the lamb market. The percentage of total meat purchases accounted for lamb was only 16.8% for the under 24 age group, 10% less than for the 65+ group. The younger group appear to substitute pork and chicken for lamb and with regard to these two meats they have a 5% higher purchase rate than the older group.

Table XIII: Purchases of Meat Cuts by Age of Respondent

Meat	24 %	25-35 %	35-44 %	45-54 %	55-64 %	65+ %	%
Beef Joint	4.8	4.5	4.9	6.4	5.9	5.2	5.3
Rump	1.7	.6	.7	1.1	1.7	.3	.9
Sirloin	3.1	1.4	2.0	2.4	1.5	2.6	2.0
Topside	1.4	2.3	1.0	1.3	.9	.8	1.4
Silverside	.6	.9	1.2	.8	1.7	.5	1.0
Brisket	.8	.4	1.5	1.7	1.4	1.9	1.2
Beef Shin		.3	.5	.4	.1	.3	.3
Beef Steak	11.5	11.9	11.9	14.0	13.2	9.0	12.1
Stewing Steak	10.9	9.9	11.0	10.5	12.1	14.8	11.2
Mince	13.7	16.0	14.6	13.9	10.6	11.8	13.9
Other Beef	1.4	.6	.5	.4	.4	.9	.6
Loin of Lamb			.1	.1	.3	.2	.1
Fillet of Lamb	.8	.8	1.6	1.1	1.7	.9	1.2
Lap of Lamb		.2	.1	.2	.1	.3	.2
Breast of Lamb		.1				.2	.1
Best End of Neck		.2			.1	.5	.1
Leg of Lamb	2.5	2.3	3.1	2.8	2.0	1.0	2.4
Shoulder of Lamb	.8	1.9	1.9	1.4	2.1	3.5	1.9
Lamb Chops	10.4	10.7	12.1	12.4	14.1	16.3	12.4
Other Lamb	2.0	1.2	1.6	1.7	1.8	2.6	1.7
Leg of Mutton		.2	.2			.2	.1
Shoulder of Mutton	.3	.1		.2	.3	.4	.2
Mutton Chops		.4	.1	.3	.5	.7	.3
Neck of Mutton			.1	.1		.2	.1
Other Mutton		.1		.8		.5	.2
Leg of Pork		.6	.1	.6	.3	.2	.3
Belly Pork	.6	.6	.6	.7	1.2	.9	.7
Pork Chops	6.4	4.4	4.6	4.2	4.5	4.2	4.5
Other Pork	2.5	2.3	2.9	2.4	1.7	2.6	2.4
Venison	.3						.1
Liver	5.6	8.3	6.7	6.3	7.9	6.6	7.1
Other Offals	.3	.5	1.0	.3	.1	.4	.5
Sausages	6.4	6.5	3.8	3.0	3.6	2.4	4.4
Chicken	9.5	8.8	7.8	7.1	7.6	6.6	7.9
All other	1.7	1.0	1.8	1.4	.6	.5	1.2
Total	100	100	100	100	100	100	100
Average no. Purchases/Week/ Age of Housewife	2.93	3.40	3.53	3.32	3.09	2.43	

Table XIV: Purchases of Meat Cuts by Size of Family

(1 to 5 or more adults and children)

Meat	1 %	2 %	3 %	4 %	5 or more %	%
Beef Joint	4.0	7.0	4.9	5.0	4.8	5.3
Rump	.4	1.2	1.4	1.0	.4	.9
Sirloin	2.6	2.3	1.4	1.9	2.3	2.0
Topside		1.5	2.0	1.8	.9	1.4
Silverside	1.5	.6	1.1	.7	1.3	1.0
Brisket	1.1	1.8	.6	1.2	1.4	1.2
Beef Shin		.3	.4	.2	.5	.3
Beef Steak	12.4	13.1	12.6	11.8	11.4	12.1
Stewing Steak	14.3	9.5	9.8	10.0	13.7	11.2
Mince	11.4	9.8	14.8	16.1	14.8	13.9
Other Beef	1.1	.3	.6	.8	.5	.6
Loin of Lamb	.4	.1	.2	.1	.1	.1
Fillet of Lamb	1.1	1.7	1.7	.8	.8	1.2
Lap of Lamb	.4	.3	.1	.1	.1	.2
Breast of Lamb	.4			.1		
Best End of Neck		.2	.4			.1
Leg of Lamb		1.8	2.0	2.3	3.7	2.4
Shoulder of Lamb	1.4	2.9	2.0	1.4	1.6	1.9
Lamb Chops	16.5	14.8	12.8	11.3	10.8	12.4
Other Lamb	1.8	2.4	2.0	1.7	1.0	1.7
Leg of Mutton		.1			.3	.1
Shoulder of Mutton	.7	.3	.1		.1	.2
Mutton Chops	.4	.3	.5	.2	.4	.4
Neck of Mutton		.2	.1			.1
Other Mutton		.4	.1	.2	.3	.2
Leg of Pork	.4	.4	.6	.4	.1	.4
Belly Pork	.7	1.0	.6	.6	.7	.7
Pork Chops	6.6	4.6	5.1	4.2	3.9	4.5
Other Pork	1.4	2.1	2.9	1.9	2.9	2.4
Liver	7.3	6.6	6.1	7.8	7.4	7.1
Other Offals	.4	.4	.4	.8	.3	.5
Sausages	2.5	3.9	4.3	5.5	4.2	4.4
Chicken	8.4	7.4	7.1	8.6	8.0	7.9
All other	.4	.7	1.3	1.5	1.3	1.2
Total	100	100	100	100	100	100
Average no. Purchases/ Week by Size of Family	2.17	2.72	3.19	3.47	3.64	

The over 65 age group buy less steak than any of the other groups. This can be attributed mainly to cost. The 45-64 year-olds eat the most steak and this again is predictable in that cost factors will weaken demand for the younger families. The over 65 age group have a relatively high consumption of stewing steak and this perhaps is their alternative to the more expensive frying/grilling steak. Mince is bought more often by the under 44 year-old groups; probably influenced by their younger families as mince is certainly very popular with most children. The over 55s on the other hand buy more lamb chops.

There is some evidence to suggest that older housewives use a wider variety of meat cuts including the cheaper joints and cuts, such as brisket and neck of lamb. Indeed few young housewives admit to using any mutton at all whereas there are more frequent mentions of mutton by the older housewife.

Taking beef steak, lamb chops and pork chops as representative of high priced cuts and, stewing steak, shoulder of lamb and belly pork as examples of cheaper cuts, beef steak amounted to about 12% of meat buys for all household sizes, with only a slightly higher figure for 2 person households. Lamb chops were 16% of the 1 person buys and steadily declined to 11% for 5+ households. Pork chops also were bought slightly more often by the smaller households, and especially by the 1 person households. This would suggest that smaller households can afford the more expensive cuts, which are also those convenient to cook.

On the other hand stewing steak was bought about 14% of the time by the smallest and largest households and about 10% by the medium sized. Shoulder of lamb was 3% of the separate purchases for the 2 person household and less than 2% for the others, whilst belly pork was hardly bought at all by anyone.

The distribution among the types of red meat, beef, lamb and pork, did differ but not greatly by family size. Lamb and pork were bought relatively more often by smaller households and

beef relatively less often: 23% of the buys by 1 person and 25% of the buys by 2 person households were of lamb, compared with 19% for the 4 and 5+ households. Conversely beef attracted 49% of the purchases by 1 person and 47% by 2 person households, compared with 51% by 4 person and 52% by 5+ person households. Pork ranged from 9% for 1 person households to 7% for 4 person households.

Socio-economic Class

Within the socio-economic groups there is not much variation in buying behaviour. A/B's buy more chicken (10%) and liver (8%), but less pork (7%) than average. C1's buy more sausage (6%) and C2's less liver (6%). E's buy less beef (45%), less sausage (2%) but more mutton and lamb (27%). (Table XV)

The individual cuts can also be considered. Within beef there is little variation among expensive and less expensive cuts. D's buy most cheap beef cuts, 40%, E's the least with 37%. Among individual cuts the issue is clouded for expensive cuts by inclusion of 'beef joint' which might be topside, silverside or rib of beef. 'Mince' is consumed more by group C and surprisingly least by group E, whereas 'stewing steak' consumption increases steadily towards E. However all groups buy similar amounts of the combined 'mince' and 'stewing steak' category. More belly pork is eaten by the poorer groups but there is otherwise little variation.

Among the more common expensive cuts of lamb, leg is favoured by the A/B group with E's buying very little, only 1%, whereas shoulder is favoured by E's, 4%, against an average of 3%. Lamb chops are also popular with E's perhaps because they have less need of family size meals. E's also record mutton more frequently, 2%, whereas only 0.5% of A/B's report such purchases.

Table XV: Purchases of Meat Cuts by Socio-Economic Class

Meat	A/B %	C1 %	C2 %	D %	E %	%
Beef Joint	3.9	5.5	5.0	6.1	5.0	5.3
Rump	1.0	1.5	1.3	.4		.9
Sirloin	2.6	2.3	2.2	1.8	1.3	2.1
Topside	2.4	2.3	1.2	.9	1.1	1.4
Silverside	.7	1.1	.9	1.2	.8	1.0
Brisket	1.0	.7	1.4	1.3	1.7	1.2
Beef Shin		.1	.7	.4	.2	.3
Beef Steak	13.0	11.8	12.4	12.9	8.4	12.1
Stewing Steak	9.2	10.2	10.3	12.4	15.0	11.2
Mince	13.5	14.5	14.8	13.8	10.9	13.9
Other Beef	.7	.2	.7	.6	.8	.6
Loin of Lamb	.2	.1		.1	.2	.1
Fillet of Lamb	1.0	1.9	.9	.9	1.7	1.2
Lap of Lamb			.1	.3	.4	.2
Breast of Lamb		.1			.2	
Best End of Neck	.2		.2	.1		.1
Leg of Lamb	3.1	2.2	2.7	2.5	.8	2.4
Shoulder of Lamb	1.2	2.4	1.0	2.1	4.2	1.9
Lamb Chops	11.6	11.0	12.9	12.0	15.2	12.4
Other Lamb	1.9	1.1	1.3	2.3	2.1	1.7
Leg of Mutton		.1	.1	.1	.2	.1
Shoulder of Mutton	.2	.1	.1	.1	.6	.2
Mutton Chops	.3	.4	.3	.4	.4	.3
Neck of Mutton		.1		.1		.1
Other Mutton			.1	.6	.6	.3
Leg of Pork	.2	.9	.2	.4		.3
Belly Pork	.2	.1	.8	1.1	1.1	.7
Pork Chops	4.8	4.9	4.3	4.1	5.0	4.5
Other Pork	1.7	1.9	3.0	2.4	2.5	2.4
Liver	8.2	7.6	6.0	7.2	8.1	7.1
Other Offals	.3	1.0	.6	.2	.2	.5
Sausages	4.6	5.9	4.7	3.6	2.5	4.4
Chicken	9.9	7.1	8.3	6.7	8.6	7.9
All other	2.4	.9	1.5	.9	.2	1.2
Total	100	100	100	100	100	100
Average no. Purchases / Week by Socio-Economic Group	3.36	3.14	3.44	3.25	2.31	

SUMMARY AND CONCLUSIONS

1. The report describes the application of projective techniques, scaling and factor analysis to attitudes to four main meats, beef, pork, lamb and chicken.
2. The analysis of these attitudes is based on questionnaires (1,518) collected from two matched pairs of towns in the North East. The use of matched towns for eliciting attitude data was employed to facilitate further research on promotion.
3. Attitudes influencing purchase decisions by housewives may be summarised as follows:-

   beef; nourishing, appetising, digestible, edible fat, re-usable, traditional, *but* expensive.

   pork; fairly appetising and nourishing, tender, tasty, good cold, *but* greasy, too fatty, indigestible, not versatile, and expensive.

   lamb; thrifty, tender, digestible, *but* the least appetising of the four, fatty, unpleasant cold, not versatile, difficult to carve.

   chicken; modern, a supermarket buy, appetising smell and taste, tender, lean, cheap, re-usable, good as cold meat and for fancy cooking *but* neither nourishing nor tasty.

4. Attitudes to the more general activity of providing meals and cooking were also scaled. They may be summarised as:-

   meat is the necessary basis of a meal, essential for a good diet, *but* expensive. Fish is considered a good substitute for meat.

   good meat can be obtained by finding and keeping to a traditional butcher.

   variety in the provision of meat meals is desirable.

   confidence in their own catering is low for many housewives.

5. About 30% of total weekly purchases of meats is bought on Saturday. From this peak buying day purchases fall to 7% on Monday, the worst day for sales.
6. Saturday is also the day on which the greatest variety of meat cuts is bought.
7. Daily expenditures do not match frequency patterns. There again however Saturday is the peak day, accounting for 45% of total weekly meat outlay.
8. In terms of weekly expenditure, beef accounts for 51%, lamb 22%, chicken 11% and pork 8% of the total. The rest includes offals, sausages, etc.
9. Eight cuts account for 75% of all meat purchases: hardly consistent with the image of the experimenting housewife.
10. Age of housewife and family size are important factors in purchasing habits and expenditures. For example, small households buy more of the expensive cuts which are also those most easily and conveniently cooked.
11. Socio-economic class analysis show few significant differences in purchasing patterns. A/B's buy more chicken and liver than average, whilst E's buy more mutton and lamb.

APPENDIX A

Guide and Instructions for conduct of meat research interviews with individual respondents.

---

1. Start by explaining general aim and objective of this session to the respondent on following lines:
   a) the idea is to give her the opportunity to tell you all about her thought, reactions and attitudes to meat without being restricted by a full questionnaire.
   b) explain that one of the usual ways of carrying out this kind of discussion is to try some word association and sentence completion games and that you will be doing this.
2. Go straight into Word Association game, using the words in List A (attached).
   Introduce it in this way:
   "I read out a word, and would you please say, without thinking too much, the first word that comes to your mind. For example, if I say 'bread', you might say 'cake'".
3. Now go on to Idea Association game, using Cards 1 to 6.
   Introduce it in this way:
   "Now for these words which we have written on cards would you answer not with a word but an idea. For example, to 'loaf' you might say 'a golden crisp crust', or you might say, 'tastes like cardboard'".
4. Now go on to Sentence Completion game, using List B (retain one copy and give respondent one).
   "When I read out the first part of each sentence on the sheet would you complete it".
5. "That's all the games, for the moment. Now I'd like you just to talk about meat; different kinds of meat; your

attitudes to meat; meat and your family and so on. Don't talk to me particularly - just think aloud. Take it gently and pause whenever you want to. So if you'd carry on".

6. "Could you describe a typical weekly menu for me (meat only) specifying joints and cuts used?"

	Breakfast	Lunch	Tea	Dinner/Supper
Mon.				
Tues.				
Wed.				
Thurs.				
Fri.				
Sat.				
Sun.				

7. Now go on to the Sunday lunch game: (2 games)
   Introduce it in this way:
   "I would like you to imagine a family sitting down to Sunday lunch. The family consists of husband, wife, son of 18, daughter of 15, and another son of 11. The wife brings in the meat for the meal,
   a roast sirloin)what do you imagine each
   a roast leg of lamb)might be thinking?
   First, the husband, then eldest son, daughter, youngest son and finally the wife".
8. Ask about frequency of buying; probe her on following points:
   a) choice of butcher.
   b) attitudes to supermarkets v traditional butcher.
   c) importance of prices.
   d) kinds of meats she asks for, i.e. knowledge of cuts and names of kinds of meat.
   e) any other topics that may emerge.
9. Now ask her about when and how she makes her buying decisions -

what is she thinking about, or imagining to herself, e.g. about cooking, menus, rest of meal, recipes, etc.

10. Now proceed to ask her opinions about other characteristics of *all the different kinds of meats:*
    a) *fat* - probe for detailed attitudes
    b) *quality* - probe for detailed attitudes
    c) *price* - probe for detailed attitudes
    especially comparisons of cuts of some meat, e.g. beef and comparisons of beef v lamb v pork.

11. Now go on to the Repertory Grid - using these or similar introductory sentences:
    "I will give you sets of 3 cards with names of different meats on them. I want you to find an important way in which any 2 are alike and in contrast to the third".
    Note: Interviewer must see that all 3 words of each set are spoken into recorder.
    Set 1 Brisket, chops, tongue
    Set 2 Neck, shin, breast
    Set 3 Shoulder, leg, rib
    Set 4 Steak, ham, saddle

12. "If you are entertaining guests what would your three favourite meat/fish dishes be, in order of preference?"

13. "If you are dining out what would your three favourite meat/fish dishes be, in order of preference?"

14. "If you had another £2 per week to spend on food how would you spend it?"

15. "The demand for pork, beef and chicken has increased over recent years whereas demand for lamb has declined. Why do you think this is?"

16. "You have already spoken to me generally about all the meats. Now, to finish with, would you please talk about each different kind of meat in turn starting with beef

pork

mutton and lamb

chicken

veal"

Word Association: List A

Meat
Tough
Fat
Dinner
Lean
Juicy
Tender
Roast
Mutton
Chicken
Butcher
Pork
Sunday
Lamb
Tasty
Beef
Vegetable
Chop
Leg
Liver
Strong
Meat

Sentence Completion: List B

1. My family like

2. Most men probably prefer

3. Most women probably prefer

4. A lamb joint is preferable to

5. When we were children meat was

6. One way beef is better than other meats is

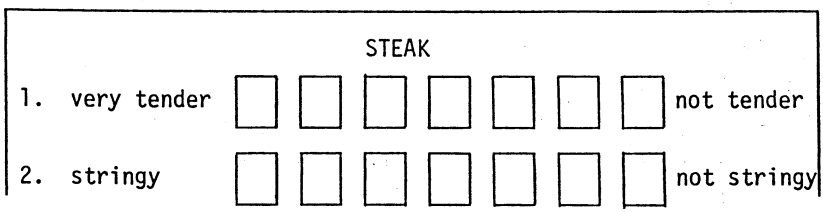
7. The difference between English and New Zealand lamb is

8. People who never eat beef

APPENDIX B

Scales used in Preliminary Survey

A set of semantic difference scales were devised and presented as follows:



The complete list of scales for each meat and for meats in general are listed more compactly below.

close grained	coarse grained
gristly	not gristly
strong taste	weak taste
sweet	not sweet
subtle taste	not subtle taste
pleasant smell	not pleasant smell
full of goodness	not much goodness
lean	fat
not sickly fat	sickly fat
no bone	lot of bone
easy to carve	not very easy to carve
men usually like	men usually do not like
children usually like	children usually do not like
cheap	expensive
good value for money	poor value for money
simple to prepare	not simple to prepare
usually readily available in supermarket	not often in supermarket
soft	hard
juicy	dry

pleasant taste	less pleasant taste
tangy	not tangy
strong smell	weak smell
full of goodness	not much goodness
digestible	not very digestible
not greasy fat	greasy fat
crispy fat	soft fat
plenty of cutting	not much cutting
no waste	wasteful
makes a good gravy	not very good for gravy
women usually like	women usually do not like
allows you to have a variety of dishes	not much variety of dishes
thrifty	extravagant
modern	old fashioned
suitable for guests	not suitable for guests
luxury meal	everyday meal
filling	not very filling
heavy	light
natural	artificial
makes a good cold meat	not good cold
eaten most in summer	eaten more in winter
high quality	low quality
not likely to be 'off'	likely to be 'off'
a young person's meat	an old person's meat
more expensive	cheaper
high protein	low protein
very nourishing	little nourishing
manual workers especially need	not especially needed by manual workers
desk workers especially need	not especially needed by desk workers
fancy meat	plain meat
most people can eat fat hot	most people cannot eat fat cold

good for plain cooking	not good for fancy cooking
needs added flavour	doesn't need added flavour
smells appetising when cooking	smells unappetising when cooking
healthy colour	less healthy colour
can easily use up leftovers	not much use for leftovers
interesting	not interesting
succulent	not succulent
a weekend meat	a midweek meat
good flavour	poor flavour
a chewy meat	not a chewy meat
an economical meat	not an economical meat
would buy in supermarket	would not buy in supermarket
fattening	not fattening
housewives especially need	not especially needed by housewives
brain workers especially need	not especially needed by brain workers
too much fat	no fat
doesn't need fat for flavour	needs fat for flavour
tastes better if cooked with bone in	bone doesn't affect flavour
shrinks however you cook it	doesn't shrink much in cooking
smells appetising when cooked	smells unappetising when cooked
looks appetising when cooked	looks unappetising when cooked

The complete list of statements for attitudes to food and cooking are listed below:

A meal must first of all be nourishing.

Meat is necessary for a good diet.

People generally eat too many foods that are bad for them.

If my family enjoys a meal I'm not all that bothered about whether it is nourishing.

I know that many of the things I like are not good for me but I eat them nevertheless.

I think most women have difficulty in thinking of what to give their families.

I just don't worry about food.

You can never be sure how a piece of meat will turn out.

Meat is a luxury.

Meat is an expensive necessity.

My family appreciate good food, well cooked.

Men are out to work all day and deserve a good meal.

When entertaining I like an unusual meal.

If eating out I choose something special which I cannot afford at home.

I like to buy my meat where the people know me.

I know what meat I am going to buy before I go into a shop.

I can't spare the time to shop around for meat bargains.

Young people are more concerned than older people are with cleanliness and hygiene.

About the only way to get good meat is to find a good butcher and stick to him.

I buy meat when I see something I like.

Supermarket meat is not as good as the traditional butcher's.

In buying meat I look mainly for price.

If the price of meat goes up people will change to the cheaper cuts.

I prefer to buy meat on the bone.

Beef has so little waste that it is really no more expensive than lamb.

I would buy mutton if it were really cheap.

Once I have found a nice piece of meat I buy the same thing week after week.

If you are not careful where you buy your meat it could be infected.

Small butcher knows what you want.

Small butcher is cleaner.

You don't know how long meat has been in the supermarket.

Supermarkets sell cheap meat.

When prices are not displayed in butchers people suspect they are on the fiddle.

Supermarkets allow you to make your own choice of meat.

I like messing around in the kitchen.

After you've cooked a meal you don't really want to eat it.

Meat cooked on the bone has more flavour than boned meat.

I like to buy meat on the bone because the bones make soup.

Women have to spend too much of their lives cooking, and preparing food.

The trouble with a joint is the time it takes to cook.

You can't always be certain that a joint is cooked all the way through.

I like trying new dishes.

Anyone who tries can cook interesting meals.

Cooking is fun, it's the clearing up that's the drag.

I like to try something different occasionally.

Magazine recipes are too expensive and include ingredients most people haven't got.

When entertaining I choose a meat that is easy to cook.

Big meat eaters like plain cooking.

Meat needs a bit of fat in the cooking.

Foreign dishes are often economical as well as tasty.

In summer salads save a lot of cooking.

My family think I'm a good cook.

I like cooking.

Meat is the basis of a meal.

Meat with some fat has more flavour.

My husband likes to carve a good joint.

Poorer people eat lamb more often than beef.

I try to vary the meat we have.

It is not easy to get many different sorts of meat.

Meat is a necessary part of the diet.

Cheese and eggs are good substitutes for meat.
My family don't like fat.
Children don't care if meat is fatty.
Fish is a poor substitute for meat.
What meat I can buy is limited by what my husband likes.
Cheaper cuts are just as nourishing.
Cheaper cuts are fattier.
Cheaper cuts need more preparation.
Tinned meats are expensive.
Tinned meats are as nutritious as other meats.
Tinned meats are used for standbys.
Ready-made, convenience meals are a waste of money.
Ready-made, convenience meals are a sign of a lazy housewife.

APPENDIX C

Section A

A1. Do you usually buy meat from the same shop 2
or different shops 1

(encircle appropriate code. If 'different shops' go to A3)

A2. What is the name of this shop and where is it?

.....

.....

A3. a) Which shops can you remember buying meat from over the last four weeks?

Names and Addresses

1) .....
.....

2) .....
.....

3) .....
.....

4) .....
.....

Section B

NB Probe for full description of cuts of meat and poultry bought.

(For this page record answers in grid below)

B1. On what days of the week did you buy meat or poultry last week?
(If no purchases last week, which days of the week do you usually buy meat or poultry?)

(For each day mentioned ask)

B2. a) What sorts of meat or poultry did you buy then?
b) About how much did you spend on that meat or poultry?

Day	Sort of Meat	Spent s.	d.
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			

Section C

RESPONDENT CLASSIFICATION

1. Your name and address (encircling Mrs/Miss)

   Mrs/Miss .....

   Address .....

2. In your household, that is taking all those for whom you provide the meals, how many adults over 16 are there, and how many children under 16?

   N/A
   Adults
   Children

(If respondent is 'Miss' go to 4)

3. May I ask what is your husband's occupation?
   (Probe for precise description and write in also your assessment of socio-economic class).

Job	Socio-economic class

4. Do you yourself have a paid job at all, part-time or full-time?

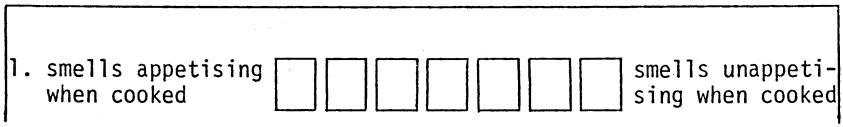
   N/A
   Part
   Full
   None

(If NONE go to 6)

5. May I ask what job it is?
6. Do you mind telling me your age?
7. Code ..... / ..... / .....

   Interviewer Day No. Call No.

Scales used in Main Survey



The complete list of scales for beef, chicken, pork and lamb are listed below.

usually readily available in supermarket	not often in supermarket
no fat	too much fat
would buy in supermarket	would not buy in supermarket
most people can eat fat cold	most people cannot eat fat cold
pleasant smell	not pleasant smell
housewives especially need	not especially needed by housewives
subtle taste	not subtle taste
cheap	expensive
not greasy fat	greasy fat
good flavour	poor flavour
easy to carve	not very easy to carve
manual workers especially need	not especially needed by manual workers
good for fancy cooking	not good for fancy cooking
full of goodness	not much goodness
modern	old fashioned
looks appetising when cooked	looks unappetising when cooked
most people can eat fat hot	most people cannot eat fat hot
very tender	not tender
thrifty	extravagant
can easily use up leftovers	not much use for leftovers
digestible	not very digestible

no waste	wasteful
makes a good cold meat	not good cold

The list of scales for attitudes to food and cooking are set out below:

Tinned meats are expensive.

I like to buy my meat where the people know me.

What meat I can buy is limited by what my husband likes.

I like to try something different occasionally.

Meat is an expensive necessity.

About the only way to get good meat is to find a good butcher and stick to him.

Fish is a poor substitute for meat.

Supermarket meat is not as good as the traditional butcher's.

I try to vary the meat we have.

The trouble with a joint is the time it takes to cook.

Meat is the basis of a meal.

Meat cooked on the bone has more flavour than boned meat.

Cooking is fun.

Meat is necessary for a good diet.

You can never be sure how a piece of meat will turn out.

My family think I'm a good cook.

APPENDIX D

Table VIIa: Beef: Mean Scores for Four Meats on Factors Important in Attitudes to Beef

	(a) Beef Beef factor 1 Mean Score	(b) Pork Beef factor 1 Mean Score	(c) Chicken Beef factor 1 Mean Score	(d) Lamb Beef factor 1 Mean Score
Most people can eat fat hot	3.3	4.0	3.9	3.9
Most people can eat fat cold	3.7	4.1	4.2	4.4
Factor mean score	3.5	4.05	4.05	4.15
	Beef factor 2 Mean Score	Beef factor 2 Mean Score	Beef factor 2 Mean Score	Beef factor 2 Mean Score
Cheap	5.8	5.1	2.1	4.1
Thrifty	3.9	4.2	3.4	2.3
Factor mean score	4.9	4.65	2.75	3.2
	Beef factor 3 Mean Score	Beef factor 3 Mean Score	Beef factor 3 Mean Score	Beef factor 3 Mean Score
Usually readily available in supermarket	2.5	2.8	1.4	2.7
Would buy is supermarket	4.9	5.0	3.1	4.9
Factor mean score	3.7	3.9	2.25	3.8
	Beef factor 4 Mean Score	Beef factor 4 Mean Score	Beef factor 4 Mean Score	Beef factor 4 Mean Score
Makes a good cold meat	1.6	1.9	1.4	2.4
Can easily use up leftovers	1.7	3.3	1.9	2.9
Full of goodness	1.4	2.1	2.2	2.1
Factor mean score	1.6	2.65	1.8	2.5
	Beef factor 5 Mean Score	Beef factor 5 Mean Score	Beef factor 5 Mean Score	Beef factor 5 Mean Score
Housewives especially need	2.7	4.0	3.6	3.5
Manual workers especially need	1.8	3.2	4.2	3.1
Factor mean score	2.25	3.6	3.9	3.3

Table VIIa (cont'd)

	(a) Beef Beef factor 6 Mean Score	(b) Pork Beef factor 6 Mean Score	(c) Chicken Beef factor 6 Mean Score	(d) Lamb Beef factor 6 Mean Score
No fat	2.6	4.6	1.9	3.9
No waste	1.7	2.9	2.5	3.0
Can easily use up leftovers	1.7	3.3	1.9	2.9
Easy to carve	1.7	2.3	2.0	2.4
Factor mean score	1.9	3.3	2.1	3.05
	Beef factor 7 Mean Score	Beef factor 7 Mean Score	Beef factor 7 Mean Score	Beef factor 7 Mean Score
Smells appetising when cooked	1.3	1.5	1.7	1.9
Pleasant smell	1.4	1.7	1.8	2.0
Looks appetising cooked	1.4	1.6	1.4	1.8
Good flavour	1.4	1.7	2.2	1.9
Factor mean score	1.4	1.6	1.8	1.9
	Beef factor 8 Mean Score	Beef factor 8 Mean Score	Beef factor 8 Mean Score	Beef factor 8 Mean Score
Modern	4.4	4.1	2.1	4.1
Good for fancy cooking	3.8	3.7	2.1	4.1
Factor mean score	4.1	3.9	2.1	4.1
	Beef factor 9 Mean Score	Beef factor 9 Mean Score	Beef factor 9 Mean Score	Beef factor 9 Mean Score
Very tender	2.4	2.1	1.5	1.9
Digestible	1.8	4.1	1.4	1.9
Easy to carve	1.7	2.3	2.0	2.4
Factor mean score	1.96	2.8	1.6	2.1
	Beef factor 10 Mean Score	Beef factor 10 Mean Score	Beef factor 10 Mean Score	Beef factor 10 Mean Score
Subtle taste	2.6	2.6	2.7	2.8
Factor mean score	2.6	2.6	2.7	2.8

Table VIIa (cont'd)

	(a) Beef Beef factor 11 Mean Score	(b) Pork Beef factor 11 Mean Score	(c) Chicken Beef factor 11 Mean Score	(d) Lamb Beef factor 11 Mean Score
Greasy fat	2.7	5.1	3.2	4.4
No fat	2.6	4.6	1.9	3.9
Factor mean score	2.65	4.9	2.55	4.15
	Beef factor 12 Mean Score	Beef factor 12 Mean Score	Beef factor 12 Mean Score	Beef factor 12 Mean Score
Full of goodness	1.3	2.1	2.2	2.1
Good for fancy cooking	3.8	3.7	2.1	4.1
Factor mean score	2.55	2.9	2.65	3.1

Table VIIb: Lamb: Mean Scores for Four Meats on Factors Important in Attitudes to Lamb

	(a) Lamb	(b) Pork	(c) Beef	(d) Chicken
	Lamb factor 1 Mean Score	Lamb factor 1 Mean Score	Lamb factor 1 Mean Score	Lamb factor 1 Mean Score
Smells appetising when cooked	1.9	1.5	1.3	1.7
Pleasant smell	2.0	1.7	1.4	1.8
Looks appetising when cooked	1.8	1.6	1.4	1.4
Good flavour	1.9	1.7	1.4	2.2
Factor mean score	1.9	1.63	1.38	1.8
	Lamb factor 2 Mean Score	Lamb factor 2 Mean Score	Lamb factor 2 Mean Score	Lamb factor 2 Mean Score
Would buy in supermarket	4.9	5.0	4.9	3.1
Usually readily available in supermarket	2.7	2.8	2.5	1.4
Factor mean score	3.8	3.9	3.7	2.25
	Lamb factor 3 Mean Score	Lamb factor 3 Mean Score	Lamb factor 3 Mean Score	Lamb factor 3 Mean Score
Cheap	4.1	5.1	5.8	2.1
Thrifty	3.4	4.2	3.9	2.3
Factor mean score	3.75	4.65	4.85	2.2
	Lamb factor 4 Mean Score	Lamb factor 4 Mean Score	Lamb factor 4 Mean Score	Lamb factor 4 Mean Score
Manual workers especially need	3.1	3.2	1.8	4.2
Housewives especially need	3.5	4.0	2.7	3.6
Factor mean score	3.3	3.6	2.25	3.9
	Lamb factor 5 Mean Score	Lamb factor 5 Mean Score	Lamb factor 5 Mean Score	Lamb factor 5 Mean Score
Can easily use up leftovers	2.9	3.3	1.7	1.9
Make a good cold meat	2.4	1.9	1.6	1.4
No waste	3.0	2.9	1.7	2.5
Factor mean score	2.76	2.7	1.66	1.93

Table VIIb (cont'd)

	(a) Lamb	(b) Pork	(c) Beef	(d) Chicken
	Lamb factor 6 Mean Score	Lamb factor 6 Mean Score	Lamb factor 6 Mean Score	Lamb factor 6 Mean Score
Most people can eat fat hot	3.9	4.0	3.3	3.9
Most people can eat fat cold	4.4	4.1	3.7	4.2
Factor mean score	4.15	4.05	3.5	4.05
	Lamb factor 7 Mean Score	Lamb factor 7 Mean Score	Lamb factor 7 Mean Score	Lamb factor 7 Mean Score
No fat	3.9	4.6	2.6	1.9
Greasy fat	4.4	5.1	2.7	3.2
Factor mean score	4.15	4.85	2.65	2.55
	Lamb factor 8 Mean Score	Lamb factor 8 Mean Score	Lamb factor 8 Mean Score	Lamb factor 8 Mean Score
Very tender	1.9	2.1	2.4	1.5
Digestible	1.9	4.1	1.8	1.4
Good flavour	1.9	1.7	1.4	2.2
Full of goodness	2.1	2.1	1.4	2.2
Factor mean score	1.72	2.5	1.75	1.82
	Lamb factor 9 Mean Score	Lamb factor 9 Mean Score	Lamb factor 9 Mean Score	Lamb factor 9 Mean Score
Modern	4.1	4.1	4.4	2.1
Factor mean score	4.1	4.1	4.4	2.1
	Lamb factor 10 Mean Score	Lamb factor 10 Mean Score	Lamb factor 10 Mean Score	Lamb factor 10 Mean Score
Subtle taste	2.8	2.6	2.6	2.7
Factor mean score	2.8	2.6	2.6	2.7
	Lamb factor 11 Mean Score	Lamb factor 11 Mean Score	Lamb factor 11 Mean Score	Lamb factor 11 Mean Score
Good for fancy cooking	4.1	3.7	3.8	2.1
Most people can eat fat cold	4.4	4.1	3.7	4.2
Can easily use up leftovers	2.9	3.3	1.7	1.9
Factor mean score	3.8	3.7	3.07	2.73

Table VIIb (cont'd)

	(a) Lamb Lamb factor 12 Mean Score	(b) Pork Lamb factor 12 Mean Score	(c) Beef Lamb factor 12 Mean Score	(d) Chicken Lamb factor 12 Mean Score
Easy to carve	2.4	2.3	1.7	2.0
No waste	3.0	2.9	1.7	2.5
Very tender	1.9	2.1	2.4	1.5
Factor mean score	2.43	2.43	1.93	2.0

Table VIIc: Pork: Mean Scores for Four Meats on Factors Important in Attitudes to Lamb

	(a) Pork Pork factor 1 Mean Score	(b) Beef Pork factor 1 Mean Score	(c) Chicken Pork factor 1 Mean Score	(d) Lamb Pork factor 1 Mean Score
Smells appetising when cooked	1.5	1.3	1.7	1.8
Pleasant smell	1.7	1.4	1.8	2.0
Looks appetising when cooked	1.6	1.4	1.4	1.8
Good flavour	1.7	1.4	2.2	1.9
Factor mean score	1.6	1.4	1.8	1.9
	Pork factor 2 Mean Score	Pork factor 2 Mean Score	Pork factor 2 Mean Score	Pork factor 2 Mean Score
Manual workers especially need	3.2	1.8	4.2	3.1
Housewives especially need	4.0	2.7	3.6	3.5
Factor mean score	3.6	2.25	3.9	3.3
	Pork factor 3 Mean Score	Pork factor 3 Mean Score	Pork factor 3 Mean Score	Pork factor 3 Mean Score
Greasy fat	5.1	2.7	3.2	4.4
No fat	4.6	2.6	1.9	3.9
Factor mean score	4.8	2.7	2.6	4.2
	Pork factor 4 Mean Score	Pork factor 4 Mean Score	Pork factor 4 Mean Score	Pork factor 4 Mean Score
Usually readily available in supermarket	2.8	2.5	1.4	2.7
Would buy in supermarket	5.0	4.9	3.1	4.9
Factor mean score	3.9	3.7	2.3	3.8
	Pork factor 5 Mean Score	Pork factor 5 Mean Score	Pork factor 5 Mean Score	Pork factor 5 Mean Score
Digestible	4.1	1.8	1.4	1.9
Can easily use up leftovers	3.3	1.7	1.9	2.9
No waste	3.0	1.7	2.5	3.0
Factor mean score	3.5	1.7	1.9	2.6

Table VIIc (cont'd)

	(a) Pork Pork factor 6 Mean Score	(b) Beef Pork factor 6 Mean Score	(c) Chicken Pork factor 6 Mean Score	(d) Lamb Pork factor 6 Mean Score
Cheap	5.1	5.8	2.1	4.1
Thrifty	4.2	3.9	2.3	3.4
Factor mean score	4.7	4.9	2.2	3.8
	Pork factor 7 Mean Score	Pork factor 7 Mean Score	Pork factor 7 Mean Score	Pork factor 7 Mean Score
Most people can eat fat hot	4.0	3.3	3.9	3.9
Most people can eat fat cold	4.1	3.7	4.2	4.4
Factor mean score	4.1	3.5	4.1	4.2
	Pork factor 8 Mean Score	Pork factor 8 Mean Score	Pork factor 8 Mean Score	Pork factor 8 Mean Score
Makes a good cold meat	1.9	1.6	1.4	2.4
Can easily use up leftovers	3.3	1.7	1.9	2.9
No waste	3.0	1.7	2.5	3.0
Factor mean score	2.7	1.7	1.9	2.8
	Pork factor 9 Mean Score	Pork factor 9 Mean Score	Pork factor 9 Mean Score	Pork factor 9 Mean Score
Good for fancy cooking	3.7	3.8	2.1	4.1
Can use up leftovers	3.3	1.7	1.9	2.9
Factor mean score	3.5	2.8	2.0	3.5
	Pork factor 10 Mean Score	Pork factor 10 Mean Score	Pork factor 10 Mean Score	Pork factor 10 Mean Score
Subtle taste	2.6	2.6	2.7	2.8
Full of goodness	2.1	1.4	2.2	2.1
Factor mean score	2.35	2.0	2.45	2.45
	Pork factor 11 Mean Score	Pork factor 11 Mean Score	Pork factor 11 Mean Score	Pork factor 11 Mean Score
Easy to carve	2.3	1.7	2.0	2.4
Very tender	2.1	2.4	1.5	1.9
Factor mean score	2.2	2.1	1.8	2.2

Table VIIc (cont'd)

	(a) Pork Pork factor 12 Mean Score	(b) Beef Pork factor 12 Mean Score	(c) Chicken Pork factor 12 Mean Score	(d) Lamb Pork factor 12 Mean Score
Modern	4.1	4.4	2.1	4.1
Good for fancy cooking	3.7	3.8	2.1	4.1
Factor mean score	3.9	4.1	2.1	4.1

Table VIId: Chicken: Mean Scores for Four Meats on Factors Important in Attitudes to Chicken

	(a) Chicken	(b) Beef	(c) Pork	(d) Lamb
	Chicken factor 1 Mean Score	Chicken factor 1 Mean Score	Chicken factor 1 Mean Score	Chicken factor 1 Mean Score
Can easily use up leftovers	1.8	1.7	3.3	2.9
No waste	2.5	1.7	2.9	3.0
Factor mean score	2.15	1.7	3.1	2.95
	Chicken factor 2 Mean Score	Chicken factor 2 Mean Score	Chicken factor 2 Mean Score	Chicken factor 2 Mean Score
Smells appetising when cooked	1.7	1.3	1.5	1.9
Pleasant smell	1.8	1.4	1.7	2.0
Factor mean score	1.75	1.35	1.6	1.95
	Chicken factor 3 Mean Score	Chicken factor 3 Mean Score	Chicken factor 3 Mean Score	Chicken factor 3 Mean Score
Most people can eat fat hot	3.9	3.3	4.0	3.9
Most people can eat fat cold	4.2	3.7	4.1	4.4
Factor mean score	4.05	3.5	4.05	4.15
	Chicken factor 4 Mean Score	Chicken factor 4 Mean Score	Chicken factor 4 Mean Score	Chicken factor 4 Mean Score
Manual workers especially need	4.2	1.8	3.2	3.1
Housewives especially need	3.6	2.7	4.0	3.5
Factor mean score	3.9	2.25	3.6	3.3
	Chicken factor 5 Mean Score	Chicken factor 5 Mean Score	Chicken factor 5 Mean Score	Chicken factor 5 Mean Score
Easy to carve	2.0	1.7	2.3	2.4
Very tender	1.3	2.4	2.1	1.9
Looks appetising when cooked	1.4	1.4	1.6	1.8
Factor mean score	1.56	1.8	2.0	2.0
	Chicken factor 6 Mean Score	Chicken factor 6 Mean Score	Chicken factor 6 Mean Score	Chicken factor 6 Mean Score
Cheap	2.1	5.8	5.1	4.1
Thrifty	2.3	3.9	4.2	3.4
Factor mean score	2.2	4.85	4.65	3.75

Table VIId (cont'd)

	(a) Chicken	(b) Beef	(c) Pork	(d) Lamb
	Chicken factor 7 Mean Score	Chicken factor 7 Mean Score	Chicken factor 7 Mean Score	Chicken factor 7 Mean Score
Usually readily available in supermarkets	1.4	2.5	2.8	2.7
Would buy in supermarket	3.1	4.9	5.0	4.9
Factor mean score	2.25	3.7	3.9	3.8
	Chicken factor 8 Mean Score	Chicken factor 8 Mean Score	Chicken factor 8 Mean Score	Chicken factor 8 Mean Score
No fat	1.9	2.6	4.6	3.9
Greasy fat	3.2	2.7	5.1	4.4
Factor mean score	2.55	2.65	4.85	4.15
	Chicken factor 9 Mean Score	Chicken factor 9 Mean Score	Chicken factor 9 Mean Score	Chicken factor 9 Mean Score
Subtle taste	2.7	2.6	2.6	2.8
Good flavour	2.2	1.4	1.7	1.9
Full of goodness	2.2	1.4	2.1	2.1
Factor mean score	2.36	1.8	2.1	2.26
	Chicken factor 10 Mean Score	Chicken factor 10 Mean Score	Chicken factor 10 Mean Score	Chicken factor 10 Mean Score
Makes a good cold meat	1.4	1.6	1.9	2.4
Digestible	1.4	1.8	4.1	1.9
Very tender	1.5	2.4	2.1	1.9
Factor mean score	1.43	1.9	2.7	2.1
	Chicken factor 11 Mean Score	Chicken factor 11 Mean Score	Chicken factor 11 Mean Score	Chicken factor 11 Mean Score
Modern	2.1	4.4	4.1	4.1
Looks appetising when cooked	1.4	1.4	1.6	1.8
Factor mean score	1.75	2.9	2.85	2.95
	Chicken factor 12 Mean Score	Chicken factor 12 Mean Score	Chicken factor 12 Mean Score	Chicken factor 12 Mean Score
Good for fancy cooking	2.1	3.8	3.7	4.1
Factor mean score	2.1	3.8	3.7	4.1

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