

# Profile and effects of consumer involvement in fresh meat

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Received 20 January 2003; accepted 28 September 2003

## Abstract

This study investigates the profile and effects of consumer involvement in fresh meat as a product category based on cross-sectional data collected in Belgium. Analyses confirm that involvement in meat is a multidimensional construct including four facets: pleasure value, symbolic value, risk importance and risk probability. Four involvement-based meat consumer segments are identified: straightforward, cautious, indifferent, and concerned. Socio-demographic differences between the segments relate to gender, age and presence of children. The segments differ in terms of extensiveness of the decision-making process, impact and trust in information sources, levels of concern, price consciousness, claimed meat consumption, consumption intention, and preferred place of purchase. The two segments with a strong perception of meat risks constitute two-thirds of the market. They can be typified as cautious meat lovers versus concerned meat consumers. Efforts aiming at consumer reassurance through quality improvement, traceability, labelling or communication may gain effectiveness when targeted specifically to these two segments. Whereas straightforward meat lovers focus mainly on taste as the decisive criterion, indifferent consumers are strongly price oriented.

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*Keywords:* Consumer; Information; Involvement; Meat; Perception; Risk

## 1. Introduction

The concept of involvement has played an increasingly important role in explaining contemporary consumer behaviour, as exemplified in numerous studies linking purchasing and consumption decisions to consumer involvement. A general definition of consumer involvement refers to the level of perceived personal importance, interest or relevance evoked by a stimulus or stimuli, which are linked by the consumer to enduring or situation-specific goals. Such stimuli can be products, services, product categories, brands, purchase decisions or advertisements (Beharrell & Dennison, 1995; Juhl & Poulsen, 2000; Mitchell, 1979; Zaichkowsky, 1985). The relevance of investigating consumer involvement pertains to its function as a motivational force, which can explain numerous steps in the consumer decision-making process. These include the extensiveness of in-

formation search, length of the decision-making process, formation of beliefs, attitudes and intentions, as well as behavioural outcomes such as variety-seeking behaviour, brand-switching behaviour, brand-commitment or loyalty, frequency of product usage or shopping enjoyment (Beharrell & Dennison, 1995; Mittal & Lee, 1989). Involvement implies relevance to the individual (Engel, Blackwell, & Miniard, 1986), which may result from reflection on self-image, cost and risk, or social pressure to compel conformity. Consumers are likely to be involved in products with a high potential reflection on self-image, with a high cost or risk, or high social pressure. High involvement leads to extensive problem-solving, which means an active search and use of information, careful processing of information, weighing and evaluating many product attributes before forming beliefs, developing an attitude and moving towards behavioural intention and actual or overt behaviour. Reversibly, low involvement associates with routine, habitual or impulsive behaviour without extensive processing of information.

The role of involvement in the case of food products is debated. Some authors claimed that consumer attitudes

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towards food products are usually previously formed, which would result in a routine decision based on prior experience. Research has indeed revealed that prior experience and habits are a very important information source in the case of buying food products (Acebron, Mangin, & Dopico, 2000; Briz, Ward, & de Felipe, 1999). Similarly, low-priced, frequently purchased products, such as many food products, are usually thought of as low-involvement products (Beharrell & Dennison, 1995; von Alvensleben, 1997). However, this conclusion seems to be based on a lack of appreciation of the need to fully specify the involvement concept. Referring to the conditions that lead to involvement, it can reasonably be assumed that food products have a low potential reflection on self-image, low cost, and low social pressure to compel conformity. The notable exception in the list of conditions is (real or perceived) risk: the probability of making a wrong choice and the eventual health implications this may have for the consumer. It has yet been demonstrated that the presupposition that food products are low-involvement products does not hold in the case of products for which there is a significant perceived risk or an unfavourable image (e.g. fresh mussels in the research of Acebron et al., 2000). Moreover, the increasing interest in agricultural ecology, animal welfare and healthy eating makes food products particularly interesting for studies of involvement (Juhl & Poulsen, 2000).

If involvement may help to understand and explain consumer decision-making towards certain food products, its role and impact on meat consumption decisions is definitely worth closer investigation. In recent years, meat production and consumption was criticised and subject to negative publicity following successive meat safety crises in Europe. Consumers heavily reacted to those crises through changing attitudes, beliefs and behaviour towards meat (Bernués, Olaizola, & Corcoran, 2003; Bredahl, 2004; Burton & Young, 1996; Latouche, Rainelli, & Vermersch, 1998; Verbeke, Viaene, & Guiot, 1999; Verbeke & Ward, 2001; Verbeke, Ward, & Viaene, 2000). Furthermore, efforts from industry and government have had limited success, e.g. small impact of information campaigns (Verbeke, Ward, & Avermaete, 2002) or low interest in labelling and traceability among most consumer segments (Gellynck & Verbeke, 2001). However, consumer reactions are likely to depend, among others, on social or personal influences, including consumer's involvement level.

Except the study by Schulz and Hamm (1997), who distinguished between high, medium and low involved beef consumers and provided preliminary evidence of the suitability of involvement measures to explain differences in individual consumer behaviour, specific consumer involvement studies in the meat domain have not been reported. Given the lack of consumer research linking involvement to meat consumption decisions, the

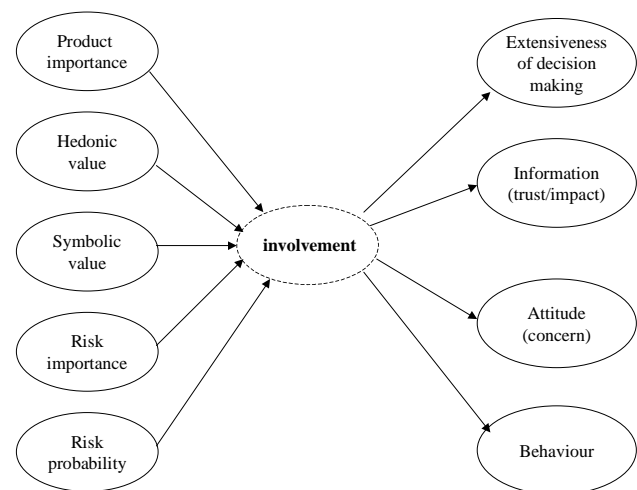


Fig. 1. Profile and effects of involvement in meat: framework for analysis.

objectives of this research are threefold. First, to investigate the profile of consumer involvement in fresh meat as a product category. Second, to assess differences among consumers based on their involvement profile. This analysis includes segmentation of the fresh meat market and enables to formulate specific implications for better-targeted information and meat marketing in the future. Third, to analyse the effects of involvement on meat consumption decision-making. Four potential effects of involvement are incorporated in this study. The first potential effect pertains to the extensiveness of decision-making, e.g. comparing many alternatives, spending much time, searching actively for information, consulting the opinion of other people (Beharrell & Dennison, 1995; Juhl & Poulsen, 2000; Laurent & Kapferer, 1985; Mittal & Lee, 1989; Zaichkowsky, 1985). Second, trust and impact of information sources, e.g. mass media, butcher, friends and family, are incorporated as potential effects of involvement. Attitudes form the third level, which may associate with consumer involvement. With respect to attitudes, the focus is mainly on consumer concerns about different topics related to the meat safety crises, e.g. BSE and dioxin. The fourth and ultimate level pertains to behaviour: claimed behaviour or frequency of product usage (Juhl & Poulsen, 2000; Mittal & Lee, 1989), preferred place of purchase and behavioural intention (Broderick & Foxall, 1999). The profile and effects of involvement as covered in this paper are depicted in Fig. 1.

## 2. Materials and methods

### 2.1. Consumer survey

Survey data were collected through personal interviews with meat consumers in Belgium during April

2001. Respondents were selected using non-probability judgement sampling (Malhotra, 1999). This means that respondents were selected based on the personal judgement of the interviewer. Although this is not a random sampling procedure, a wide variety of socio-demographic profiles in the sample was aimed at (see Table 1). Total sample size amounted to 625 respondents. All respondents were meat consumers who were responsible for meat purchasing within their household. Because involvement is likely to correlate with consumer experience with the product category (Sørensen, Grunert, & Nielsen, 1996), a minimum level of product experience is needed to ensure that effects of involvement are accurately measured. Hence, it can reasonably be assumed that a person with very little experience towards fresh meat is also very little involved. To exclude this potential bias, all respondents claiming to eat fresh meat less than once a week (5.3%) were removed from the initial sample, yielding a valid sample for the subsequent analyses of  $n = 592$  respondents, all of whom consume fresh meat at least once a week. The socio-demographic and behavioural profile of this valid sample are presented in Table 1. The profile reflects the primary role of women as responsible person for meat purchasing. Distributions of age, education and living environment show that the sample covers a wide range of respondents, though without being statistically representative for the Belgian population.

## 2.2. Questionnaire

Each respondent completed one of three different questionnaires with about half of the questionnaire

being equal (the part dealing with involvement as reported in this paper). The first questionnaire focused on consumer perception of meat labels, the second focused on animal welfare, and the third focused on attitude and perception towards different fresh meat types. All variables, statements and scales reported in this paper matched exactly across the three questionnaires.

Almost all research dealing with consumer involvement has shown that involvement is a multidimensional construct (e.g. Broderick & Foxall, 1999; Juhl & Poulsen, 2000; Laurent & Kapferer, 1985; Mittal, 1989; Mittal & Lee, 1989). Therefore, involvement should not be measured by a single item but as an involvement profile to provide a more complete description of the relationship between a consumer and a product category. Laurent and Kapferer (1985) proposed five facets of involvement: (1) the perceived importance of the product (its personal meaning); (2) the hedonic value of the product (its ability to provide pleasure and affect); (3) the symbolic or sign value (in what extent the product is related to the expression of an individual's self-concept), and the perceived risk associated with the product purchase, which encompasses two dimensions, namely (4) the perceived importance of negative consequences of a poor choice, and (5) the perceived probability of making the wrong choice. Each of these five facets of involvement was measured by three items (15 items in total) on 7-point Likert (interval) scales ranging from "totally disagree" to "fully agree".

Extensiveness of decision-making was scored on four items with 5-point scales, ranging from "very few" to "a lot of" for: spending time, comparing alternatives, using information and consulting the opinion of others when making fresh meat consumption decisions. Similarly, trust and impact of mass media and personal information sources, as well as attitude and concerns were also measured on 5-point interval scales. Investigating consumer trust and impact of different information sources is relevant given the importance of efficient and effective (segmented and targeted) communication. Sources included are mass media (television, radio, newspaper, magazines), personal sources (friends and family, butcher), commercial advertising and government. Additionally, the statement "Mass media keep telling us the same stories, just to fill up the news" was also included. Effects of involvement on behaviour in the strict sense (purchase and consumption) are of ultimate relevance to the meat chain. Behavioural outcomes (fresh meat consumption frequency, change of meat consumption since the past, intention towards the future, preferred place of purchase) were measured as categorical variables. The questionnaire finally included relevant socio-demographic characteristics like age, gender, education and presence of children in the household as presented in Table 1.

Table 1  
Socio-demographic characteristics of the valid sample (% of respondents,  $n = 592$ )

Gender	Male	39.9
	Female	60.1
Age	<25 years	21.6
	25–40 years	29.5
	40–55 years	38.2
	>55 years	10.7
	Mean (S.D.)	40.0 (14.1)
Children	No	35.9
	Yes	64.1
Education	Lower secondary	15.9
	Higher secondary	32.4
	University	51.7
Living environment	Urban	40.1
	Rural	59.9
Frequency of fresh meat consumption	Daily	57.1
	Less than daily	42.9

### 2.3. Data analysis procedures

Data were analysed using SPSS 10.0. First, the internal reliability consistency of multi-item scales (each facet of involvement, extensiveness of decision-making, trust and impact of information) was tested using Cronbach's alpha (Peterson, 1994). The threshold value for a satisfactory scale is 0.6, which denotes that the different items measure one single construct and therefore may be aggregated. Second, factor analysis using principal components was performed in order to assess the involvement profile towards fresh meat. Third, consumer segmentation based on individual's involvement profiles was realised through cluster analysis. Fourth, differences between involvement-based segments in terms of extensiveness of decision-making, information usage and attitude were assessed through One-way ANOVA *F* tests with Tukey post hoc multiple comparison test of mean scores. Cluster membership was used as factor, and the hypothesised profile and effects of involvement were included as dependent variables. Finally, behavioural differences between the segments were investigated using cross-tabulation and  $\chi^2$  association tests.

## 3. Results

### 3.1. Involvement in fresh meat

Cronbach's alpha internal reliability coefficient proves satisfactory for three facets of involvement in

fresh meat: "product importance" ( $\alpha = 0.75$ ), "hedonic value" ( $\alpha = 0.74$ ) and "symbolic value" ( $\alpha = 0.66$ ). The three items measuring "risk importance" and "risk probability" had a Cronbach's alpha value of 0.44 and 0.51, respectively, which is below the threshold value for a satisfactory scale. A factor analysis is performed to detect the real dimensions of consumer involvement in the specific situation of fresh meat. Four significant factors are found, accounting for 57.9% of the total variance in the involvement concept. Table 2 reports the 15 items with their respective factor loadings. The factor rotation confirms the two facets "risk importance" (perceived importance of negative consequences of a poor choice) and "risk probability" (the perceived probability of making a wrong choice), despite their low Cronbach's alpha values. Hence, the item with the highest loading in the factor analysis is selected to represent the dimension for further analysis. One item of perceived product importance (importance 1) was also deleted, because it loaded on different factors. In result, the final involvement scale is reduced to 10 items, loading on four factors and explaining 72.4% of the variance. The Cronbach's alpha for the overall 10-item involvement construct is 0.58, confirming previous findings that involvement is a multidimensional concept, thus, different facets measure different types of involvement and a single measure would prove unsatisfactory.

The facets "product importance" and "hedonic value" load on the same factor. Moreover, the correlations between these items are all highly significant ( $p < 0.001$ ). Therefore, in further analyses, these items are merged to

Table 2  
Factor analysis of the initial 15-item involvement scale (factor loadings from principle components analysis)

	Factor 1	Factor 2	Factor 3	Factor 4	Yes/no <sup>a</sup>
<i>Product importance</i>					
I don't care at all about meat <sup>b</sup>	0.57				No
Meat is very important to me	0.86				Yes
For me meat is absolutely necessary	0.83				Yes
<i>Hedonic value</i>					
I can say that I actually do not like to eat meat <sup>b</sup>	0.65				Yes
I enjoy a meal with meat more than a meal without meat	0.82				Yes
I appreciate meat very much	0.81				Yes
<i>Symbolic value</i>					
You can tell a lot about a person based on his/her choice of meat		0.77			Yes
My choice of meat gives other people an image of me		0.82			Yes
My choice of meat conveys nothing about me to other people <sup>b</sup>		0.66			Yes
<i>Risk importance</i>					
I don't have a lot to loose when I make a bad choice of meat <sup>b</sup>			0.65		No
I would find a bad choice of meat terrible			0.78		Yes
I find it very annoying to make a wrong choice of meat			0.63		No
<i>Risk probability</i>					
I never know if I make the right choice of meat				0.84	Yes
When I buy meat, I know that I make the right choice <sup>b</sup>				0.66	No
I feel lost when having to choose meat				0.51	No

<sup>a</sup> Item included in the final involvement profile (10 items) Yes/no.

<sup>b</sup> Item reversely scaled.

form a single dimension of five items (resulting in a Cronbach's alpha of 0.87). This new dimension will further be referred to as "pleasure value". The factor encompasses how important fresh meat is to the consumer and how related it is to feelings of pleasure. Average scores for the total sample of respondents amount to 4.6 (S.D.=1.5) for "pleasure value" versus 2.9 (S.D.=1.5) for "symbolic value". This signifies that meat is clearly perceived as a food product with a high hedonic or pleasure value, while its perceived symbolic or sign value is rather low. The two dimensions of perceived risk also have opposite average scores. In general, consumers believe they have a rather small probability of making a wrong meat choice ("risk probability" average=3.2, S.D.=1.9), but consumers attach a lot of importance to the eventual negative consequences of an eventual poor choice ("risk importance" average=5.3; S.D.=2.0). The first dimension refers to the purchase decision of good meat, which is not perceived as very difficult. The second dimension, which is rather related to the consumption of meat, clearly includes more obstacles for consumers.

### 3.2. Involvement-based meat market segmentation

Cluster analysis allows classifying meat consumers into relatively homogeneous groups or segments based on their profile of involvement in meat. Individual's scores on the four facets of involvement, i.e. "pleasure value", "symbolic value", "risk importance" and "risk probability" are used as classification variables. The resulting hierarchical cluster solution points to four different meat consumer segments with their respective size and involvement facet scores as reported in Table 3. Segment 1 (15.7% of the sample) can be typified as "straightforward meat lovers", who enjoy consuming meat and don't perceive much risks in eating meat. Respondents belonging to segment 2 (36.1% of the sample) also make a deliberate (high "pleasure value" and low "risk probability"), though a much more cautious choice of meat. These respondents attach a lot of importance to the eventual negative consequences of a

poor choice, therefore being further referred to as "cautious meat lovers". The third segment (16.2% of the sample) is rather indifferent towards consuming meat. These consumers report a rather low "pleasure value" and they perceive the probability to make a wrong choice as high. Nevertheless, they do not perceive the negative consequences of a poor choice as very important. They may be typified as "indifferent meat consumers", for whom the "symbolic value" of meat is also extremely low. The last segment (32.0% of the sample) includes respondents who are highly concerned, which is exemplified by their high score on both facets of perceived risk, therefore being referred to as "concerned meat consumers".

### 3.3. Socio-demographic cluster profile

The segments can be profiled in terms of socio-demographic characteristics. Significantly more men belong to the "straightforward meat lovers" ( $\chi^2 = 9.48$ ;  $p = 0.024$ ). This associates with a significant higher "pleasure value" attached to meat consumption by men (5.1 for men versus 4.3 for women;  $t = 6.02$ ;  $p < 0.001$ ). Furthermore there is a tendency that men score lower on "risk importance" than women ( $p = 0.140$ ). With respect to age, consumers aged below 25 years belong significantly more than other age groups to the segment of "indifferent meat consumers" (38.7% in segment 3 versus 21.8% in the sample;  $\chi^2 = 27.28$ ;  $p < 0.001$ ). The young meat consumers also report the lowest scores for "risk importance". Finally, "symbolic value" is found to increase with increasing consumer age (e.g. a score of 2.5 for <25 years versus 3.6 for >55 years;  $F = 7.17$ ;  $p < 0.001$ ). Families with children are significantly more represented among "cautious meat lovers" and "concerned meat consumers" (segments 2 and 4;  $\chi^2 = 15.77$ ;  $p < 0.001$ ). This associates both with a higher "risk importance" ( $t = -2.98$ ;  $p = 0.003$ ) and a higher "symbolic value" ( $t = -2.31$ ;  $p = 0.021$ ) attached to meat by families with children.

Education levels were not found to differ significantly between the four meat involvement segments.

Table 3  
Involvement based meat market segmentation (average scores on 7-point scales)

	Segment 1	Segment 2	Segment 3	Segment 4
Pleasure value	4.91 <sup>a</sup>	4.89 <sup>a</sup>	4.10 <sup>b</sup>	4.31 <sup>b</sup>
Symbolic value	2.98 <sup>a</sup>	2.98 <sup>a</sup>	2.25 <sup>b</sup>	3.13 <sup>a</sup>
Risk importance	2.32 <sup>a</sup>	6.48 <sup>c</sup>	3.21 <sup>b</sup>	6.54 <sup>c</sup>
Risk probability	1.616 <sup>a</sup>	1.61 <sup>a</sup>	4.72 <sup>b</sup>	4.83 <sup>b</sup>
Typification	Straightforward meat lovers	Cautious meat lovers	Indifferent meat consumers	Concerned meat consumers
Number of respondents	91	210	94	186
% of sample	15.7	36.1	16.2	32.0

<sup>a, b, c</sup>Scores in one row with a different superscript are significantly different at  $p < 0.05$  (one-way ANOVA and post hoc Tukey multiple comparison test).

Nevertheless, a significant higher “pleasure value” was recorded for lower educated consumers (education until 18 years of age) ( $F = 5.83$ ;  $p = 0.003$ ), which however did not result in a significantly higher share of the lower educated consumers in any of the segments.

### 3.4. Extensiveness of decision-making

The scale of extensiveness of decision-making included four items measuring the extent of comparing alternatives, spending time, using information and consulting the opinion of others when making a choice of meat. The Cronbach’s alpha of this scale amounts 0.74, which indicates that these four items measure one single construct. Therefore, the average score on the four items can be considered as a measure of extensiveness of decision-making, and can be compared between the four consumer segments. The average scores of the four segments on the overall construct “extensiveness of decision-making” are reported in Table 4. The segments of “cautious meat lovers” and “concerned meat consumers” show the most extensive decision-making towards meat. They spend a lot of time, compare a lot of alternatives, use of lot information and consult the opinion of peers when making meat consumption decisions. Decision-making related to meat appears to be far less complicated for the “straightforward meat lovers” and “indifferent meat consumers”. Whereas “straightforward meat lovers” are well experienced and not concerned, the “indifferent meat consumers” are simply not interested in making a perhaps difficult meat consumption decision.

### 3.5. Trust and impact of information sources

In general, advertising scores were lowest for both trust and impact, while friends and family and the

butcher were given the highest scores. An exploratory factor analysis for trust and impact scores separately, confirms two factors in each case. Scores for radio, television, newspaper and magazine score on the same factor, both for trust ( $\alpha = 0.89$ ) and impact ( $\alpha = 0.94$ ), which indicates that all mass media sources are judged similarly. Both for trust and impact, all other sources load on the second factor. However, since their scores are clearly different and in absence of common features (personal and commercial sources together), effects of involvement are investigated on the initial individual scales for the non-massmedia sources. Significant differences are reported in Table 4.

The four consumer segments do not differ with respect to trust in mass media, but they do with respect to their belief of the impact of mass media. “Concerned meat consumers” admit a significantly stronger impact of mass media as compared to both “meat lover” segments ( $F = 6.77$ ;  $p < 0.001$ ). “Cautious meat lovers” report a significant higher score for trust in family and friends ( $F = 2.14$ ;  $p < 0.001$ ). Finally, trust and perceived impact of government, butcher and advertising, as well as (dis)agreement with the statement that mass media keep telling the same stories to fill up the news, do not differ significantly between the segments.

### 3.6. Consumer attitude

First, “indifferent meat consumers” and “straightforward meat lovers” are found to report a significantly higher level of agreement with the statement “What I like to eat is more important than healthy eating” ( $F = 4.98$ ;  $p = 0.002$ ) (Table 4). Clearly, both segments are especially hedonic-oriented rather than health-oriented when making food consumption decisions. Furthermore, the “indifferent” indicate significantly

Table 4

Effects of involvement on extensiveness of decision-making, trust and impact of information, and attitude (average scores on 5-point scales)

	Straightforward meat lovers	Cautious meat lovers	Indifferent meat consumers	Concerned meat consumers
Extensiveness of decision-making	2.64 <sup>a</sup>	2.90 <sup>b</sup>	2.60 <sup>a</sup>	3.00 <sup>b</sup>
Impact of mass media	1.91 <sup>a</sup>	2.11 <sup>a</sup>	2.19 <sup>a,b</sup>	2.40 <sup>b</sup>
Trust in family and friends	2.79 <sup>a</sup>	3.12 <sup>b</sup>	3.03 <sup>a,b</sup>	3.02 <sup>a,b</sup>
What I like to eat is more important than healthy eating	2.71 <sup>b,c</sup>	2.39 <sup>a,b</sup>	2.78 <sup>c</sup>	2.35 <sup>a</sup>
It is mainly the price that determines my choice of meat	2.40 <sup>a,b</sup>	2.33 <sup>a</sup>	2.70 <sup>b</sup>	2.38 <sup>a,b</sup>
Concern about antibiotics	3.77 <sup>a,b</sup>	4.03 <sup>b</sup>	3.64 <sup>a</sup>	4.05 <sup>b</sup>
Concern about hormones	3.56 <sup>a</sup>	3.95 <sup>b</sup>	3.40 <sup>a</sup>	3.99 <sup>b</sup>
Concern about fat/cholesterol	3.33 <sup>a</sup>	3.42 <sup>a,b</sup>	3.28 <sup>a</sup>	3.67 <sup>b</sup>
Concern about dioxin	3.67 <sup>a</sup>	3.88 <sup>ab</sup>	3.57 <sup>a</sup>	4.00 <sup>b</sup>
Concern about BSE	3.39 <sup>a,b</sup>	3.54 <sup>a,b</sup>	3.32 <sup>a</sup>	3.72 <sup>b</sup>
Concern about harmful bacteria	3.89	4.03	3.80	4.01

<sup>a, b, c</sup>Scores in one row with a different superscript are significantly different at  $p < 0.05$  (one-way ANOVA and post hoc Tukey multiple comparison test).

Table 5  
Effects of involvement on behaviour (% of respondents,  $n = 592$ )

	Straightforward meat lovers	Cautious meat lovers	Indifferent meat consumers	Concerned meat consumers
Daily consumption of fresh meat	62.6	60.0	57.4	48.9
Decreased consumption from the past	16.5	21.4	24.5	34.9
Decreased consumption since BSE	16.5	23.3	28.7	37.6
Decreased consumption since dioxin	11.0	19.0	18.1	30.6
Intention to decrease in near future	22.5	25.5	22.6	32.8
Place of purchase: butcher	51.1	52.9	48.4	58.4
Place of purchase: supermarket	30.7	28.4	46.2	31.9
Place of purchase: short market channel	18.2	18.7	5.4	9.7

Associations included in this table are significant at  $p < 0.05$  following  $\chi^2$  tests.

more than the “cautious” and “concerned” that ‘prices mainly determine their meat choice’ ( $F = 3.05$ ;  $p = 0.028$ ). This indicates that indifference with respect to risk, as well as to pleasure from consuming meat, may at least partly result from economic motives. Lack of either spending or will power to purchase good quality meat may trigger indifference.

Second, “indifferent meat consumers” and “straightforward meat lovers” in general report the lowest level of concern about antibiotics, hormones, fat/cholesterol, dioxin, harmful bacteria and BSE. Both the “cautious” and “concerned” show significantly higher levels for antibiotics ( $F = 5.88$ ;  $p < 0.001$ ), hormones ( $F = 12.55$ ;  $p < 0.001$ ), dioxin ( $F = 4.88$ ;  $p = 0.002$ ) and BSE ( $F = 2.93$ ;  $p = 0.033$ ). With respect to fat/cholesterol, only the segment of “concerned meat consumers” reports a significantly higher score. Hence, consumers from segment 4 can be considered to be concerned overall, whereas consumers from segment 2 are mainly concerned about issues that grew into real scares (not fat/cholesterol). Concern levels for bacteria are generally highest and do not differ between segments.

Third, associations between socio-demographic groups and levels of concerns about meat fully corroborate previous findings. Within the total sample, women are significantly more concerned than men about all issues (all  $p < 0.05$ ), except about harmful bacteria. Families with children report significantly higher concern levels (all  $p < 0.001$ ), except for fat/cholesterol. Finally, higher education is found to associate with lower concern about BSE ( $p = 0.002$ ), fat/cholesterol ( $p = 0.004$ ) and harmful bacteria ( $p = 0.011$ ).

### 3.7. Behaviour

Within the valid sample ( $n = 592$ ), 57.1% of the respondents claimed to eat fresh meat on a daily basis, versus 42.9% who eat fresh meat with a lower than daily frequency. A tendency is seen that daily consumption of fresh meat associates with membership to the segment of “straightforward meat lovers”, whereas lower frequen-

cies are significantly more reported by “concerned meat consumers” ( $\chi^2 = 6.82$ ;  $p = 0.078$ )<sup>1</sup> (Table 5).

Stronger effects are discovered with respect to the reported meat consumption decreases from the past, with significantly more “concerned meat consumers” reporting decreases from past ( $\chi^2 = 15.52$ ;  $p = 0.017$ ), since the BSE-crisis of 1996 ( $\chi^2 = 16.93$ ;  $p < 0.001$ ) and since the dioxin crisis of 1999 ( $\chi^2 = 16.65$ ;  $p < 0.001$ ). It is further noteworthy that the claimed impact of the dioxin crisis in terms of meat consumption decreases was generally lower as compared to the BSE-crisis, except for the “concerned meat consumers” who again reacted quite heavily. Additionally, a tendency is seen that “concerned meat consumers” intend more than other segments to further decrease their fresh meat consumption in the near future (32.8% versus 25% or less for the other segments,  $\chi^2 = 5.15$ ;  $p = 0.157$ ).

Finally, behaviour pertains also to place of purchase. Within the whole sample, 54.2% indicated the butcher as their preferred supplier of fresh meat, followed by supermarket (32.3%), own breeding (6.8%) and farm gate (6.2%). The share of short market channels (i.e. farm gate or own breeding) is significantly higher among “straightforward” and “cautious” meat lovers. Second, preferred supermarket choice is significantly higher among “indifferent meat consumers”, which fits with their more price-conscious attitude and less extensive decision-making (impersonal one-stop-shopping retail choice). Finally, “concerned meat consumers” indicate significantly more to prefer the traditional butcher when purchasing fresh meat ( $\chi^2 = 20.01$ ;  $p = 0.003$ ).

<sup>1</sup> This modest association can be explained by the fact that frequency of fresh meat consumption, and not amount or volume, was measured in the questionnaire. Hence, a logical hypothesis would be that amounts of fresh meat per eating occasion also differ between the involvement-based segments. This hypothesis could not be tested from the current dataset. Actual (e.g. from a household panel or diary) instead of claimed behavioural data would be needed.

#### 4. Discussion and conclusions

This study investigated the profile and effects of consumer involvement in fresh meat as a product category. Similar to other product categories, involvement in fresh meat is shown to be a multidimensional construct, including the dimensions “pleasure value”, “symbolic value”, “risk probability” and “risk importance”. “Pleasure value” is the dominant facet of involvement in fresh meat. This corroborates previous research, which has reported taste as the single largest driver for maintaining meat consumption habits, even in situations of uncertainty or risk (Goodson et al., 2002; Grunert, Bech-Larsen, & Bredahl, 2000; Richardson, MacFie, & Shepherd, 1994; Verbeke, 2001). Despite the major contribution of “pleasure value”, this facet alone does not capture consumer’s involvement in fresh meat completely.

In result, fresh meat cannot univocally be classified as a low- or high-involvement product, neither can meat consumers be typified as strictly low- or high-involved. Involvement-based meat market segmentation yielded four consumer segments, which differ significantly in terms of socio-demographic composition and decision-making towards fresh meat consumption. The first segment, typified as “straightforward meat lovers”, includes significantly more men and daily fresh meat consumers. Their meat consumption decisions are straightforward, i.e. striving for enjoyment when eating meat, relying on their personal experience, not being hampered by eventual concerns related to meat safety, and few influenced by external information. Previous research has consistently reported that men in general attach more importance to pleasure derived from food as compared to women. For instance, men were found to find “taste” a more important and “trying to eat healthy” a less important criterion for food choice than women (Institute of European Food Studies, 1996). Women seem to have more moral and ecological misgivings to eating as compared to men, who are more confident and demonstrate a rather uncritical and traditional view of eating (Beardsworth et al., 2002). Furthermore, men are less likely to give up favourite foods for health reasons (Gilbert, 2000). Appreciation for taste and authenticity is reflected in a higher preference for short meat supply market channels like farm gate or own breeding. This segment is one of the smallest and amounts, even when corrected for gender, to around 17% of the population. Marketing efforts, labelling and traceability schemes, better quality or safer meat will only convince them when tangible benefits are included, with better or differentiated taste being of utmost importance.

Another segment with a similar size as the previous one was typified as “indifferent meat consumers”. They do not really derive pleasure from eating meat, but at the same

time, they show rather low concerns and low perceived risks related to meat quality and safety. From all segments, the “indifferent meat consumers” clearly show the lowest involvement in fresh meat. Relatively more young people (<25 years) belong to this segment. Price is of utmost importance during their decision-making process, which is also reflected in their preference for buying fresh meat in supermarkets. These consumers are difficult to motivate or convince with additional information or quality efforts, especially when these efforts would result in slightly more expensive meat. These consumers, perhaps together with the “straightforward meat lovers”, cannot be expected to actively search for information related to meat quality and safety.

The segment of “cautious meat lovers” is involved in fresh meat both because of its pleasure value and perceived risk. It concerns mainly families with children, who still highly appreciate the taste of meat, though make more conscious decisions after the meat safety crises of previous years. This finding is not surprising since parenting triggers focus on nutrition (Childs, 1997), which yields a search for nurturing benefits through the provision of wholesome foods that lay a strong foundation of health for children (Gilbert, 1997). As such, higher risk aversion through the presence of children may lead to more cautious decision-making for food products with specific real or perceived health risks. Industry and government efforts aiming at consumer reassurance of meat quality and safety (e.g. traceability and labelling efforts) can be expected to be most effective among consumers belonging to this large segment, which constitutes more than one third of the meat market.

The fourth segment is typified as “concerned meat consumers”. This segment mainly includes consumers who strongly reduced their meat consumption frequency (from daily to several times a week) since the meat safety crises of previous years. They report high levels of concern related to meat safety and have the strongest intention to further decrease fresh meat consumption. The motto “Less but better quality meat” may best hold for these consumers, who constitute around one third of the meat market. Their preference for butchers as suppliers of fresh meat fits with their search for better (perceived) quality meat and personal reassurance.

Strategies to reduce perceived risk include building a stronger image, quality assurance (labelling, traceability), better product pricing, improving store image, and providing a consumer guide or leaflet with information about food hygiene and safety (Acebron et al., 2000; Yeung & Morris, 2001). Most of these strategies are especially relevant for “cautious meat lovers” and “concerned meat consumers”, together two thirds of the meat market. These segments can be expected to show the strongest interest in leaflets, belief in traceability and put their trust in labels. However, both of these



segments do not report higher trust or perceived impact of sources of positive news, such as industry (advertising), butchers or government. In practice, perceived “risk probability” of making a wrong choice can be reduced through a more extended information acquisition, such as word-of-mouth communication (i.e. the role of butchers), endorsements or purchase of products that have been tested or certified by a private company or government. Following Mceachern and Schröder (2002), all consumers irrespective of their involvement are interested in tangible quality attributes like taste, while high-involved consumers may additionally demand intangible quality attributes (e.g. quality assurance or label). This statement is confirmed by our findings, in that the lowest involved segment of “indifferent meat consumers” sticks to tangible attributes like price, whereas more involved consumers additionally seek authenticity or quality reassurance. Especially consumers who strongly reduced their meat consumption and hold high levels of concern can be expected to benefit from a stronger and more personalised relationship with the butcher, who they report as their preferred meat supplier.

Future research could focus on differences in the profile and effects of involvement in different meats, i.e. different species, cuts, forms of preservation (e.g. frozen) or brands as opposed to generic meat. Additionally, eating occasions or out-of-home consumption are relevant topics for inclusion in future involvement studies. Although the model of Laurent and Kapferer (1985) proved most useful for our focus on the product category, other frameworks may not be overlooked (e.g. Mittal & Lee (1989) with product and purchase-decision involvement, or Bloch & Richins (1983) with enduring and situational involvement). Finally, investigation of the reactions of the different segments to quality-enhancing, consumer reassurance, traceability, labelling or other marketing efforts – some of which are hypothesised in this conclusion – deserves attention in future research.

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