

Consumer Concerns about Animal Welfare and the Impact on Food Choice¹

EU FAIR CT98-3678

FINAL REPORT

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PART A

1. Title:

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2. Contract number:

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3. Official contractual period:

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6. Funding:

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7. Abstract:

Key words:

consumer concerns, farm animal welfare, food safety, food quality, food choice

This project investigates consumer concerns about farm animal welfare and the impact on food choice in the United Kingdom, Ireland, Italy, France and Germany. The aims of the project are to identify and analyse the nature and level of consumer concern both within and amongst the study countries. The results of the qualitative and quantitative studies demonstrate that although consumers are concerned about farm animal welfare, this concern is not a priority in food choice. When consumers do express concern, it is evident that this concern is multidimensional. Consumers use animal welfare as an indicator of other, usually more important, product attributes such as food safety, quality and healthiness. Consequently, consumers equate good animal welfare standards with good food standards. Consumers define animal welfare in terms of natural lives and humane deaths. In essence, this means that animals should be reared, fed, housed, reproduced and allowed to behaviour as close to natural conditions as possible. Consumers equate natural production methods with safer food quality. They use the term 'humane' to describe a quick and painless death during slaughter. Consumers claim that they are uninformed about modern animal production and would like more information so that they can make informed choices. However, the issue of information is double-edged. On the one hand, consumers believe they have the right to make informed food choices. On the other hand, consumers engage in voluntary ignorance, in order to abrogate responsibility for animal welfare. Therefore, they may disassociate the product from the animal of origin, or claim that, even though they want more information, they do not trust the Government or the food industry as sources of information. Moreover, although consumers claim that they are willing to pay more for improved animal welfare, at point of purchase such claims are not translated into practice. Indeed, although the majority of consumers report high levels of concern about farm animal welfare, such concerns are not translated into behaviour. The vast majority of animal-based food consumed in the EU is produced in intensive systems. The research identified a series of barriers to purchasing 'animal-friendly' products. The barriers are: lack of information about production methods, lack of availability of products, lack of belief in the ability of individual consumers to make a difference to animal welfare standards, disassociating the product from the animal of origin, and the increased cost of 'animal-friendly' products.

When consumers do choose welfare products, invariably they buy free-range eggs. These products are relatively inexpensive and, therefore, the premiums are not so prohibitive. Consumers would like to see their concerns addressed through a combined strategy. This includes establishing acceptable minimum standards and changing agricultural policy to provide farmers with incentives to convert to higher welfare systems. This improvement on the supply side is to be complemented by developments in the demand side including compulsory labelling, which provides consumers with information on animal welfare standards in various systems of production, and a public information campaign to support changes. On the whole, consumers do not view voluntary codes of practice positively, and tend to perceive them as transitional. Consumers are unaware of World Trade Organization (WTO) rules and the impact they have on animal welfare standards, therefore, consumers believe that EU standards and labels should apply to all imports. In devising policies to address consumer concern about animal welfare and the impact on food choice, the EU will need to consider a range of measures. These may include EU-based information campaigns, as well as agricultural reform, legal definitions for labelling and advocacy of farm animal welfare in negotiations on agriculture at the Millenium Round of the WTO.

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Harper, G.C., Miele, M., Henson, S.J. and Parisi, V. (2000). Farm Animal Welfare and Consumer Choice: A comparison between the United Kingdom and Italy, paper presented to the *European Society for Agricultural and Food Ethics Congress*, Royal Veterinary and Agriculture University, Copenhagen, Denmark, 24 – 26 August, 2000.

9. Deliverables for exploitation:

The project produced a number of results, which have implications for the way the EU could address consumer concerns about animal welfare and the impact on food choice. In particular:

- The results reveal that consumers are concerned about standards of animal welfare because of the impact on the well being of the animals and the impact on food safety, quality and healthiness. These effects are viewed as interdependent. Consequently, policies devised to address consumer concern must address both of these aspects.
- The fact that high levels of reported concern do not translate into food choice should not be interpreted as consumers not being concerned. The key issue is that there are a number of barriers – lack of information, lack of availability, lack of belief in personal influence, disassociation and cost – which prevent consumers from exercising their ethical preference in food choice. Policies should be devised to address each of these barriers:
 - Information: consumers clearly want more information on how their food is produced so that they can make informed choices. On the other hand, consumers do not want to accept responsibility for animal welfare and, therefore, they also engage in ‘voluntary ignorance’. Consumers may also be subject to information overload, especially on labels, and due to experience and/or desire to abrogate responsibility, judge various sources of information such as the Government and food industry as untrustworthy. An EU-based public information campaign to inform consumers about the ways in which animals are produced in the EU, which also addresses food safety and quality issues, should take into account the contradictory nature of consumer demand for information. Animal welfare labels should be subject to EU legal definition. These definitions, and measures for inspection and enforcement, should be a significant part of the public information campaign.
 - Availability: the issue of lack of availability of ‘animal-friendly’ products is related to lack of information, confusion over current labelling, lack of demand and premiums associated with increased animal welfare. While the majority of consumers claim to be concerned about farm animal welfare, the vast majority of animal-based food is intensively produced in the EU. As more consumers become more informed about animal production, demand for more extensively produced food may increase, however, this will be subject to affordable prices and comprehensive labelling.
 - Perceived influence: many consumers believe that they are powerless, in terms of their purchasing behaviour, to affect animal welfare standards. This is contradictory to all current marketing strategies, where consumer preferences are viewed as market drivers. This issue may be compounded again by consumer reluctance to accept responsibility for animal welfare, through their demand for animal-based food products. In this way, consumers adopt a fatalistic approach to

food choice. Policies to address this should encourage consumers to acknowledge their role in current animal welfare standards and ways in which they can assist in improving standards.

- **Disassociation:** this is probably the most difficult barrier to address as it underpins the other issues. Increasing urbanisation and separation of food production from consumption has led to pervasive ignorance of modern production methods and separation of the food product from the animal of origin. As consumers become more aware of animal sentience, on the one hand, and continue to demand animal-based food products, on the other, compounded by the industrialisation of animal production, consumers engage in various psychological and behavioural strategies to avoid connecting the product with the animal of origin. Such strategies simultaneously negate their complicity in the killing of animals for food. It is unclear to what extent public policy can address this fundamentally psychodynamic issue. Simply increasing information may lead to further disassociation as consumers are unwilling to acknowledge the slaughter of animals for human consumption. Policy needs to be designed in view of this. Shock tactics will undoubtedly fail. Information needs to be scientifically based, as rational as possible and comprehensible. The realities of modern animal production need to be communicated in a way that takes into account the role of various stakeholders – producers, manufacturers, distributors, retailers, exporters and consumers – and addresses their respective roles in animal welfare standards.
- **Cost:** although consumers rated this the least important barrier, it clearly has an important impact on food choice. Indeed, it is well known that consumers would rather attribute food choice to other factors. Consumers state that they are willing to pay more for improved animal welfare, yet such statements rarely translate into practice. At point of purchase, cost is one of the most important factors, as are other direct attributes, such as food safety and quality. Animal welfare is not viewed as having a direct impact on the consumer and is, therefore, not a priority when food purchasing. Where consumers do pay more, such as for ready-made meals or organic food, there are perceived direct benefits, namely convenience and health. The product which consumers do claim to buy, and for which there is a significant market, is free-range eggs. However, the initial cost and, therefore, the relative premium is small compared to other animal-based products. Policies devised to address cost need to take into account that although consumers say they are willing to pay, invariably they do not. The cost of improved animal welfare may need to be viewed as the cost for a public good which, although paid for by the taxpayer, is subsumed under general agricultural financial support rather than differentiated product prices. This requires redefining EU agricultural policy to provide incentives and rewards for farmers to convert to higher standards of animal welfare without passing on direct costs to consumers, which may only serve as barriers to purchase.
- Consumers prefer a combined strategic approach to their concerns which involves impacts on both the supply side and the demand side. In terms of supply, consumers favour minimum standards and reform of agricultural policy. In terms of demand, consumers favour compulsory labelling and consumer education, which should

empower consumers to express their preferences for higher animal welfare standards. On the other hand, the voluntary code of practice scenario is viewed as transitional, only leading towards compulsory measures. The future of animal welfare will undoubtedly be based on a mutual development of legislative and market forces.

- Animal welfare standards in the EU need to be addressed in light of World Trade Organization (WTO) rules. Although the WTO rules do not allow distinctions to be made on the basis of non-product related process and production methods (PPMs), this research demonstrates that consumers do make such distinctions. The results show that consumers are concerned about the impact of production methods on the well being of the animals and/or food safety and quality. However, a series of barriers prevents consumers translating their concerns into food choice, therefore, in spite of increasing standards of animal welfare in the EU, there remains a large competing market for imported cheaper (lower standard) animal-based food products. The fact that current WTO rules on non-product related PPMs does not allow intensively produced products to be distinguished from extensively produced products has a serious impact on the competitiveness of EU producers. Therefore, animal welfare should be part of the negotiations on agriculture at the Millennium round of the WTO. The agenda should include discussion of financial support for improved animal welfare, preferential market access for higher welfare products, mandatory labelling, reform of non-product related PPMs and application of Article XX, which currently does not include animal welfare.

PART B

1. Title:

Consumer Concerns About Animal Welfare And The Impact On Food Choice

2. Contract number:

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3. Official contractual period:

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Organisation Name	Country	Status	Connection	Cost Basis	Total Cost (ECU)	EU Contribution (ECU)
The University of Reading	United Kingdom	Co-ordinator		AC	293,000	293,000
Teagasc	Ireland	Contractor		FC	190,000	94,000
INRA	France	Associate	Reading	AC	94,000	94,000
University of Pisa	Italy	Associate	Reading	AC	95,000	95,000
University of Kiel	Germany	Associate	TEAGASC	AC	110,000	110,000
Meat and Livestock Commission	United Kingdom	Associate	Reading	FC	15,000	7,000
Bord Bia	Ireland	Associate	TEAGASC	FC	15,000	7,000
TOTAL					812,000	700,000

7. Background/rationale:

The project is in response to evidence of growing concerns about animal welfare amongst consumers in the European Union. Such evidence comes from the increasing demand for food products which are perceived by consumers to be more ‘animal-friendly’, for example free-range eggs (Mintel, 1996; MAPS, 1996; Volbehr, 1990; Sorensen, 1995), the growth in the number of vegetarians (Mintel, 1994; Mintel, 1996; Federation Naturista Vegetariana, 1996; EMNID, 1989) and calls for tougher regulation of welfare in animal production (Bennett, 1996; Oliver *et al.*, 1996; Harrison, 1992; Birbeck, 1991; Baumgartner, 1993; 1994; Rohte, 1993; Rojahn, 1993). There have also been a number of consumer surveys which claim to support the proposition that consumers are becoming more concerned about animal welfare in food production (see for example MLC, 1996; Diestre, 1993; von Albensleben, 1988; 1989; 1994; 1996; Fiddes, 1991; Birbeck, 1991; Webster, 1995a; 1995b). Such concerns have implications for the future consumption of products such as meat, eggs, milk and dairy products and the role of these products in nutrient intake. In turn, consumer concerns about animal welfare have important implications for producers and retailers of animal-based food products within the EU.

Although there is a burgeoning literature on the problems of measuring animal welfare from a scientific and philosophical perspective (see for example Beckoff, 1994; Mason

and Mendl, 1993; Broome, 1991; Dawkins, 1990; Comstock, 1994; Straughan, 1996; Sperlinger, 1981; Waran, 1995), there are remarkably few published studies of consumer understanding and concerns about animal welfare (Carruthers, 1991). Those studies which do exist only address consumer concerns about animal welfare in one or two countries and generally report the results of relatively simple consumer surveys (for example Rogers *et al.*, 1989; Eurogroup for Animal Welfare, 1996; RSPCA, 1996; Mintel, 1994; Appleby, 1993; Bennett, 1996; von Loeper, *et al.*, 1985; Volbehr, 1990; Walter and Reisner, 1994; Gerken, 1994; Sorensen, 1995; Kuehnle and Muehlbauer, 1992; Rasmusen, 1978; Phenson and Sigurdanson, 1992).). For example, such studies typically pose the question “Are you concerned about the welfare of animals produced for human consumption?” without any attempt to understand what consumers actually mean by animal welfare.

Consumer concerns about animal welfare have important implications for the future of the animal-based food products industry within the EU (Hughes, 1996; Whitemore, 1995; Hilse, 1993a; 1993b; Waran, 1995; MLC, 1993; Ekesbo, 1994; Berry, 1993). Firstly, as has already been experienced in some member states, the total demand for animal-based food products is sensitive to concerns about animal welfare (McInerney, 1991; Bennett, 1994; 1995; 1996). Secondly, such concerns may challenge the acceptability of established methods of animal production and transportation (Whitemore, 1995). This issue has gained in prominence as a result of the recent BSE scare (Mintel, 1996; von Albensleben, 1996) and concerns about biotechnology (Raichan *et al.*, 1993 Hamstra, 1993; Lex, 1995; Ellahi, 1994).

Despite the importance of consumer concerns about animal welfare for the future of the animal-based food products industry, existing research provides little information on the specific nature of consumer concerns about animal welfare, in particular how such concerns relate to the actual practices used to rear animals, how concerns differ both quantitatively and qualitatively between EU member states, and the potential influence of concerns about animal welfare on the choice of animal-based food products.

8. Objectives and primary approaches:

The overall objective of the project is to assess the nature and magnitude of consumer concerns about animal welfare within a cross-section of EU member states (United Kingdom, Ireland, Germany, France and Italy), assess the impact on choice of animal-based food products and suggest strategies by which consumer concerns can be addressed.

The specific aims of the project are to:

- Identify the nature of consumer concerns about animal welfare within a cross-section of EU member states.
- Assess the differences and similarities in consumer concerns about animal welfare, between consumers both within and across EU member states.

- Identify the relationship between consumer concerns about animal welfare and the methods used to rear animals.
- Assess the knowledge of consumers about the actual practices employed to rear animals.
- Assess the trade-off between animal welfare, price and other product characteristics in choice of animal-based food products.
- Assess the impact of changes in the methods used to rear animals and the potential choice of animal-based food products.
- Find potential strategies through which policymakers, producers of animal-based food products and retailers can address consumer concerns about the welfare of animals produced for human consumption.

9. Methods, statistics, ethical aspects:

Literature Review

The first stage of the project involved a thorough review of the literature on the demand for animal products; consumer concerns about animal welfare and previous research on consumer concerns about animal welfare issues of all types. The objectives of this initial stage of the project are to provide a review of existing knowledge of consumer concerns about animal welfare and the impact on choice of animal-based food products; to identify the key research questions to be addressed by later stages in the project; to identify potential problems which need to be addressed in the final design of later stages of the project; and to aid the design of the focus group discussion guide. The literature review included computer-based searches and consultations with consumer researchers and members of the animal-based food industries to provide an exhaustive assessment of current knowledge in the area.

Focus Groups

In order to identify and analyse consumer understanding of, and concern for, animal welfare, a series of four focus groups was conducted in two locations in each of the five study countries. Each focus group was based on a common semi-structured discussion guide designed on the basis of the results of the literature review. The discussion guide for the focus groups was initially designed by the Co-ordinator and piloted in each of the study countries. The focus groups aimed to investigate food concerns, in general; what consumers actually mean by animal welfare and existing knowledge about practices used in animal production; how concerns about animal welfare relate to the actual practices used in animal production and how concerns about welfare differ for individual animal products; perceived benefits of improved animal welfare for animals and for consumer; and trade-offs made between animal welfare, price and other product attributes. Finally, the impact of concerns about animal welfare on purchasing behaviour and the likely effect of changes in animal production practices was examined.

Table 1: Demographics of the focus group participants

Number	Gender	Age	Social Class	Region
8	female	25-39	ABC1	City
8	female	40-60	ABC1	City
8	female	40-60	C2DE	Town
8	male	25-39	ABC1	Town

Each focus group was divided into two main sections: a general discussion of each of these issues and a more specific discussion of particular animal-based food products based on different animal production practices. Vegetarians, vegans or people with any other food prohibition were excluded. Participants were recruited on the basis that they regularly (weekly) consumed meat and dairy products. Eurogroup for Animal Welfare suggested a list of production systems for each meat product. The video of various animal production systems was created by the Co-ordinator, based on a number of video clips sent in by the partners. Bord Bia and Eurogroup refined the descriptions accompanying the video. Each of the groups was presented with a variety of intensively and extensively produced animal-based food products to discuss. The groups followed the same discussion guide and were shown the same video. The groups were tape-recorded and transcribed. The data was analysed using NUD*IST.

In-depth Interviews

The main aims of the in-depth interviews were to investigate further the issues identified in the focus groups. Specifically, this involved identifying differences in values, which motivate concern about animal welfare, between consumers within and across the study countries. To identify differences in beliefs and concerns about animal welfare between consumers within and across the study countries, the interviews needed to be, in one aspect, more structured than the focus groups to allow a clearer comparison to identify similarities and differences. However, it was also necessary to retain, at this stage, the qualitative design and allow consumers to generate their own discourse to account for their beliefs and behaviour. In addition, the interviews aimed to identify consumer concerns about animal welfare for particular animal-based food products. This stage of the project needed to cross the methodological bridge between the qualitative and quantitative sides of the research. A series of 60 in-depth interviews were conducted with consumers at in each of the five study countries. Participants were recruited through a short survey on concerns about animal welfare and consumption of animal-based food products. The consumers were selected by age (25 – 39 and 40 – 60 years old) and social class (ABC1 and C2DE).

Table 2: Demographics of the interview participants

	25-39	40-60
ABC1	15	15
C2DE	15	15

The interviews were based on a common semi-structured schedule designed on the basis of the results of the focus groups. The interview schedule was pre-tested and piloted on a

small sample of consumers in each study country. The interviews were based on means-end chain theory and, therefore, incorporated the laddering technique to elicit attributes, consequences and values associated with concern about animal welfare. Consumers were asked to rank eight animal-based food products based on their concern for the animal during production. The products were chosen on the basis of the results of the focus groups, discussions with the industrial partners and consultation with the Commission. The interviews were recorded and laddered throughout the interview. The ladders were analysed using Laddermap. Finally, the interviews aimed to guide the development of the questionnaire employed in the representative sample survey.

Representative Sample Survey

The aims of the representative sample survey were to assess consumer concerns about animal welfare amongst a representative sample of consumers in each study country; to identify segments of consumers with similar concerns about animal welfare both within and across the study countries; to relate concerns about animal welfare, and changes in the methods applied in animal production to the potential choice of animal-based food products; and to assess the trade-off consumers make between animal welfare, price and other product characteristics.

The results of the laddering interviews, together with the results of the focus groups, fed into the design of the draft questionnaire. The questionnaire was pretested initially in the United Kingdom and the revised questionnaire was subsequently pretested in each of the five countries. The questionnaire was piloted on a sub-sample of 15 consumers employing the same methodology as the final survey. The questionnaire was revised in light of the pilot results. Interviews were conducted amongst a nationally representative sample of consumers (n = 500) in each study country. The interviews were conducted by a professional market research agency (*Produkt and Markt*, Germany) using computer-assisted interviewing. The survey data was analysed using SPSS. The results of the survey, together with the qualitative results, were assessed in order to devise strategies for various stakeholders to address consumer concern about animal welfare.

Assessment of Strategies to Address Consumer Concerns about Animal Welfare

The aims of the final stage of the project were to develop strategies, on the basis of the results from the preceding stages of the research, which address consumer concerns in an efficient and effective manner, can be effectively communicated to consumers and are practical both economically and scientifically given current knowledge. The assessment was sub-divided into three stages. Firstly, a preliminary assessment of the implications of the results for the animal-based food products industry and consumers was conducted. Secondly, potential strategies were developed through a workshop held involving interested parties, including representatives of the animal-based product industry, consumer groups and animal welfare organisations. Thirdly, these potential strategies were discussed with consumers through a series of focus groups.

Preliminary Assessment

The aim of the preliminary assessment by the non-academic partners was to assess the implications of the results for the animal-based food products industry and consumers,

and to identify potential strategies within the product supply chain, and through policy initiatives, which address consumer concerns about animal welfare.

Workshop

A workshop was held with approximately 30 invited participants including representatives of agricultural producers, the animal-based food products sector, retailers, consumer groups, animal welfare groups and policymakers. The discussion was structured using standard group elicitation techniques. At the beginning of the workshop the participants were encouraged to suggest as wide a range as possible of potential strategies which could be used to address consumer concerns about the welfare of animals. Over the course of the workshop, each strategy was critically appraised in terms of its effectiveness and practicalities taking into account current legal requirements and scientific knowledge, and the economic costs involved.

Focus Groups

A series of 4 focus groups was conducted in each of the five study countries. Participants in the focus groups were recruited through a short administered survey on animal welfare and choice of animal-based food products conducted outside food retail outlets. Each focus group was based on a common semi-structured discussion guide designed on the basis of the previous results. Consumers were presented with five scenarios to address consumer concerns, based on the results of the strategy workshop. The discussion guide was tested through a pilot focus group in Ireland and in Italy. The discussion guide and scenarios were revised in light of the pilot results. Cluster analysis of the survey results identified those consumers who were most concerned about animal welfare. Four groups were conducted in each country: two female ABC1s and two male ABC1s. The focus groups were recorded and analysed to reveal consumer evaluation of the five proposed scenarios.

10. Results, discussion, conclusion:

The Literature Review

There are some consistent and predictable similarities amongst the participating countries. In each of the countries, there is quantitative evidence to suggest a high level of reported consumer concern for animal welfare. Consumers are concerned about other product characteristics such as quality, cost, health benefits or detriments and safety. In many cases these concerns supersede concerns about animal welfare and, in these cases where animal welfare is a significant concern, it is often as an indicator of these other attributes. Where factors affecting the nature and level of consumer concerns about animal welfare were given, it became clear that gender is a consistent predictor of attitudes towards animals and willingness to pay for improved welfare. Women were predominantly more concerned with animal welfare compared to men.

In all countries there are higher rates of vegetarianism in the young and this fact affects the attitudes of the young to animals. Young people are more likely than older people not to eat meat for ethical rather than health or financial reasons. The relationship between level of education and socio-economic status is likely to be co-determinant. Having a higher level of education is likely to improve the socio-economic status of that person

and enable them to be more willing to pay for improved animal welfare, than people of a lower educational standard or lower socio-economic status.

The role of pet animals as members of human families, as honorary humans, necessitates a consistent and determined anthropomorphism. As the boundaries are broken down between perceptions of pet animals and farm animals, it will be inevitable that pet owners be amongst the first segment of consumers to recognise the issues of sentience and potential suffering. Moreover, consumers of organic food are likely to be concerned about animal welfare, as they are about the environment and health issues. They are also more likely to have a higher socio-economic status, be able to pay the premiums on organic food and report that they are willing to pay more for improved animal welfare.

The vast majority of animal-based products are still produced in intensive systems throughout the five countries, but the market for ‘animal-friendly’ products is a growing one. Here, it is not clear to what extent measures of willingness to pay are actual measures of willingness to pay for improved animal welfare, or improved human welfare.

The Focus Groups

The focus groups in the United Kingdom, Ireland, France, Germany and Italy revealed a number of key findings relating to general concerns about food, concern about animal welfare, meanings of animal welfare, sources and reliability of information, responsibility, advantages and disadvantages of higher animal welfare, willingness to pay and attitudes towards farm animal production systems.

Consumers across the five countries are spontaneously concerned about food safety, health, and quality. Consumers are particularly concerned about ‘unnatural’ and ‘unhealthy’ additives, such as antibiotics and hormones. These concerns are magnified if the consumer has children, in which case the parent may prohibit certain types of food (notably beef and genetically modified food) from the children’s diet. The type of food safety concern is dependent on current media campaigns in each country, for example, salmonella in Italy, genetically modified food in the United Kingdom. Consumers do not prioritise animal welfare as a spontaneous concern about food. When asked about animal welfare, consumers use animal welfare as an indicator of other, more important, product attributes. Animal welfare, as a concern, is legitimised through association with human health and safety. Consumers expressed particular concern over battery cages and veal crates. Where consumers did purchase ‘animal-friendly’ products, the purchase was facilitated by perceived motivational alliances to other product attributes, such as taste and quality. Consumers used the concepts of ‘natural’ and ‘humane’ to describe the ways in which farm animals should be treated. Consumers generally disassociated the product from the animal of origin in order to assuage their conscience.

The participants believed that it was right that people ate animal products. Whilst most consumers, across the countries, believed that farm animals should be treated ‘humanely’, some consumers, especially in France and the United Kingdom, believed that the treatment of animals meant for food was relatively unimportant because of the ultimate use of the animal. Older consumers, especially in the United Kingdom and France, believed that intensification of farming had resulted in poor welfare for animals, and,

consequently, a poorer product for people. A number of consumers in Italy and the United Kingdom associated animal welfare with organic production.

Consumers received most of their information from the media, but also from specific organisations, the Government and their own experiences. Most consumers felt that they were not well informed about animal production systems. Consumers expressed doubt over the validity and credibility of labels on products, especially in the United Kingdom and France. Some participants in Ireland and United Kingdom expressed a desire for an independent body to accredit the production method as animal-friendly and a standardised label. Participants tended to assume theoretical responsibility but claimed that, as individuals they were powerless to make any substantial changes. Responsibility was attributed to the producers, retailers and the Government. Many consumers in the United Kingdom and France stated that the high premiums on animal-friendly products prevented individual consumers from being responsible.

There was a consensus that consumers would benefit from improved animal welfare through the improved quality, safety and taste of the products. The participants also felt, with the exception of the French, that improved welfare would result in increased costs which would be passed on to the consumer. Premiums on animal-friendly products were thought to benefit the producer; at the same time, increased investment by the producer would bring additional costs. There was some variation amongst the countries as to whether or not the producer would benefit. There was some recognition that retailers would also benefit from premiums, however, in the United Kingdom groups some participants believed that as demand and production increased, prices would fall. Participants in France claimed that improved animal welfare would lead to reduced use of chemicals, and reduced pollution of the environment.

All the groups, with the exception of France, said that they were willing to pay more in principle for improved animal welfare. The amount they were willing to pay depended on the initial cost of the product and the way in which it would be used. The French groups believed that more 'natural' production methods should not cost more and, therefore, they would be unwilling to pay more. Invariably, those consumers who said they would pay more, also stated that the product would have to have other improved quality characteristics such as taste.

Most of the participants disapproved of the battery cage system for laying hens, stating that it was 'cruel' and 'unnatural'. The barn system, with increased space allowance and access to natural light, was considered a reasonable compromise. Many consumers expressed a preference for free-range production, as long as disease was controlled and prices minimised. The indoor broiler system was generally perceived as 'cramped' and 'cruel', although some participants said it was similar to the barn system for laying hens. Again, this system, if improved through increased space and access to the outside, was acceptable. However, most of the participants preferred the free-range system.

All the participants disapproved of the tethers and stalls for sows, describing them as 'unnecessary', 'cruel' and like a 'prison'. There was also objection to the restriction of the farrowing crate. The loose housing system was perceived to be a good compromise. Again, the outdoor rearing was perceived as the most 'natural' and, therefore, the ideal system. The indoor finishing did not present any significant problems. There was

generally less concern for the beef systems, although there was a general preference for the outdoor system. Most of the concern related to BSE and cattle feed. Many of the participants thought that the veal crates should be banned. There was a great deal of concern about the inadequate diet and restricted movement. The grouped housing system was preferred, but a number of participants objected to the production of veal per se.

The Interviews

Means-end chain theory (MEC) proposes that consumers are motivated by their core values when making purchasing decisions. This stage of the research extrapolates this relation to investigate those values, which motivate consumer concern about animal welfare, as a credence characteristic, and, thus, affects food choice. The laddering technique was used to identify the relations amongst key attributes, consequences and values in the United Kingdom, Ireland, Germany, France and Italy. The results indicate that consumers are equally motivated by human health (anthropocentric) concerns as they are about animal welfare (zoocentric) concerns. Indeed, consumers often use animal welfare as an indicator of other product attributes, such as quality and safety, thus supporting the findings of the previous focus groups. There appear to be no significant differences amongst the countries in the types of values consumers use to motivate their concern about animal welfare.

Consumers concern about animal welfare in the production of food is significantly motivated by the perceived relation amongst poor welfare conditions, food safety, and the effects on human health. Consumers generally believe that modern, intensive production is 'unnatural' and, consequently, unsafe and unhealthy. Consumers with children are principally concerned about the health and well being of those children. Their concern about animal welfare conditions is propelled by their sense of responsibility to their children and their families.

A number of suggestions were made in relation to the design and execution of the representative sample survey: to examine the extent of consumer concern in relation to specific attributes; to relate self-relevant values to these attributes; to examine willingness to pay and consumption changes; to investigate barriers to change; to examine the effects of level of knowledge on consumer concern; to assess product-differentiated differences in concern; to assess the impact of various demographics on consumer concern; and to assess the relative importance of anthropocentric versus zoocentric values in motivating consumer concerns about animal welfare and the impact on food choice.

The Survey

The survey supported high levels of concern about animal welfare. However, it also revealed that the recent changes in consumption patterns, especially from red meat to white meat, were almost wholly motivated by anthropocentric concerns, such as human health, food safety, and changes in lifestyle.

In France, milk, eggs and poultry are most often consumed, supported by the fact that they consistently rate high on taste, health, safety and value for money, and equally high on inconvenience to give up consuming. The shift from red to white meat, due primarily to health and food safety concerns, is evident here. Interestingly among those products

that are most frequently consumed is the greatest concern in terms of acceptability of production method. Egg and poultry production feature highly here. In Italy the percentage of consumers who decreased consumption is higher than those who increased (except for milk and poultry) their consumption. Italians have decreased consumption of beef and veal, influenced by BSE, the most. In Ireland, poultry is the most popular meat, followed by beef, and the least popular is veal. The greatest decrease in consumption was for beef and the greatest increase was for poultry. Consumption of red meat had decreased overall by 61%, compared to decrease in poultry, eggs and milk at 39%, again supporting the hypothesis that there is a greater decrease in consumption of red meat, compared to white meat, eggs and milk. The most important reasons for decreasing consumption in Ireland was health and BSE, including animal diseases generally and lack of trust in food safety, supporting the hypothesis that consumers have decreased consumption for health rather than animal welfare concerns. In Germany, milk and eggs were most frequently consumed product and veal and lamb the least frequently consumed. In Germany, reduction of all meats, except poultry, is greater than increase in consumption, again supporting the shift from red to white meat. BSE, health, changes in diet and taste were the most cited reasons for change in consumption. In the United Kingdom, egg and milk consumption is the highest overall, and poultry consumption is highest among meats. The greatest decrease in consumption is for beef, followed by lamb, pork and veal. The only significant increase (greater than decrease) is for poultry consumption. The most important reasons for change in consumption are related to health, cost, changes in diet, household composition and lifestyle.

Italian consumers found poultry production the most unacceptable, followed by beef and veal, mainly due to BSE and unnatural feed such as bone meat. Irish consumers found the veal, poultry and egg production systems least acceptable. Milk and lamb production was the most acceptable probably because consumers associate outside access, space and natural feed with good animal welfare. German consumers found milk and lamb production most acceptable, and found all other production methods somewhat unacceptable, with egg production being the least acceptable. In the United Kingdom, consumers found milk, lamb, beef and pork production most acceptable, and egg, poultry and veal production least acceptable. French consumers rated all the species production methods unacceptable. The least acceptable was poultry, followed by eggs, pork, beef, veal, lamb and milk. Overall, milk and lamb production were rated 'acceptable', whilst pork, beef, eggs, veal and poultry were all rated 'unacceptable'.

All the attributes were considered important: feed, followed by space, outside access, expressing normal behaviour and conditions of transport and slaughter. In Italy, feed was the most important (again influenced by BSE), followed by space and outside access. Irish consumers considered feed, space and outdoor access the most important attributes. German consumers rated quality of animal feed the most important attribute, followed by transport conditions, space, freedom to behave normally, access to outside and slaughter conditions. British consumers rated quality of animal feed most important to animal welfare, followed by transport conditions, freedom to behave normally, slaughter conditions, space and access to the outside. In France, consumers rated feed most important, followed by outside access, space, transport conditions and finally normal behaviour and slaughter conditions.

In Italy, one third of consumers reported that they had decreased consumption due to animal welfare concerns. Italians decreased consumption of beef and veal mostly, followed by poultry, pork and lamb, and eggs and milk. 45% of Irish consumers reported that they had reduced consumption due to animal welfare concerns, with the greatest decrease being for beef, followed by poultry, eggs, pork, veal and lamb. 38% of Germans reported that they had reduced consumption of animal based food due to concerns about animal welfare. These consumers reduced consumption of beef the most, followed by veal, poultry, pork, eggs, lamb and milk. 22% of British consumers reported that they had reduced consumption due to animal welfare concerns. These consumers reduced consumption of beef the most, followed by pork, poultry, lamb, veal, eggs and milk. 32% of French consumers reported that they had decreased consumption due to concerns about animal welfare starting with poultry, followed by beef, veal, eggs, pork, lamb and finally milk.

38% of Italian consumers reported that they selected 'animal-friendly' products. However, in Italy very few labels clearly refer to production methods in terms of animal welfare, with the only examples being free-range eggs and organic products. Italian consumers used origin and 'bought at farm gate' as associated with higher animal welfare. Over three-quarters of Irish consumers reported that they select animal-friendly products. 70% of German consumer reported that they select animal friendly products, with the most frequent being poultry, eggs, pork and beef. 53% of British consumers stated that they select animal-friendly products, the most common being free-range eggs and organic products. 60% of French consumers stated that they select animal-friendly products.

Overall, lack of information and lack of availability were the most important barriers, to purchasing 'animal-friendly' products both being rated 'important' followed by lack of personal influence, disassociation and finally cost, which were all rated 'unimportant'.

There is variation amongst countries in the degree to which the consumers feel informed about specific products. In the case of pork, German and Irish consumers feel 'somewhat informed' about production methods, whilst Italian, British and French consumers feel 'somewhat uninformed'. For poultry production, German, Irish, British, Italian and French consumers feel 'somewhat informed'. In the case of beef, German, Irish and French consumers feel 'somewhat informed' about production methods, whilst the British and Italian consumers feel 'somewhat uninformed'. For lamb production, only the Irish consumers feel 'somewhat informed', whilst British, Italian, French and German consumers are 'somewhat uninformed'. German, Italian, French, British and Irish consumers are all 'somewhat uninformed' about veal production. In the case of egg production, German, Irish and British consumers are 'somewhat informed', whilst Italian and French consumers are 'somewhat uninformed'. For milk production, Irish, German and British consumers are 'somewhat informed', whilst Italian and French consumers are 'somewhat uninformed'.

In France lack of trust in the Government, the food industry, and the European Union is directly linked to consumer demand that these institutions take more responsibility for animal welfare standards. For Italians, those involved in the production and sale of animal-based food products are not considered as trustworthy as those social movements, such as animal welfare organisations and environmental organisations. Consumers'

organisations, and consumers themselves, are viewed as most trustworthy to promote animal welfare standards. Irish consumers trust friends and family the most, followed by animal welfare and environmental organisations, whereas, the Government and the food industry are considered least trustworthy. German consumers trust animal welfare, consumer and environmental organisations and friends/family the most. They have least trust in the Government, food industry and supermarkets. British consumers express most trust in friends and family, followed by consumer, animal welfare and environmental organisations, butchers, farmers' organisation and scientists. They express least trust in supermarkets, the food industry and the Government. Overall, consumers found consumers' organisations most trustworthy, followed by animal welfare organisations, friends and family, environmental organisations, butchers, scientists and farmers' organisations. Consumers found supermarkets, the food industry and the Government least trustworthy.

Irish consumers believe that all participants in animal-based food production should be responsible for ensuring acceptable standards of animal welfare. They believe that the EU, the food industry, farmers and butchers should be mainly responsible and rate themselves as being least responsible. German consumers believe that farmers, the Government, butchers, the food industry, animal welfare organisations and the EU should be most responsible for animal welfare, whilst they claim that animal welfare organisations, environmental organisations, farmers and butchers are actually responsible for animal welfare. In the United Kingdom, consumers stated that farmers, followed by Government, food industry, EU, butchers, animal welfare organisations, supermarkets, environmental organisations, and finally consumers themselves, should take responsibility for animal welfare. This compares to only animal welfare and environmental organisations, farmers, butchers and consumers being rated as actually taking responsibility. In Italy, consumers stated that farmers, the EU, Government and the food industry, butchers, animal welfare and environmental organisations, and finally supermarkets and consumers should take responsibility for animal welfare. French consumers stated that farmers, Government and the food industry and butchers, followed by the EU, animal welfare organisations and supermarkets, environmental organisations and finally consumers should take responsibility for animal welfare standards.

For Italian consumers, the fact that the animal is not killed in the production of eggs and milk puts these products in a different category to meats and, therefore, has the best overall image. Among the meats, poultry has the best overall image, in terms of health and safety. Pork is considered the tastiest but less healthy, and beef and veal have the worst overall image. However, despite BSE, Italians still rate beef as one of the meats that would be hardest to give up, reflecting the strong traditional preference for beef. Irish consumers rated poultry the most popular meat, closely followed by beef. Milk was the healthiest product overall and poultry the healthiest meat. Beef was rated low for health but higher for taste, and was also rated least safe product. Milk is the most inconvenient product for Irish consumers to stop consuming, and poultry is the most inconvenient meat. Eggs and milk are considered the best value for money. British consumers rated milk the tastiest, healthiest, safest and best value for money; it was also the hardest to stop consuming. Eggs and poultry were also rated highly, with veal being rated worst across all categories.

The survey results reveal consumers categorise these products in to red meat, white meat, and eggs and milk. Whilst there is a general decrease in consumption of red meat, there is an increase in consumption of white meat, eggs and milk. The major reasons for change in consumption relate to food safety and quality, and the impact that has on human health. Other key factors are changes in diet, lifestyle and household composition, as well as cost. Consumers find veal, egg and poultry production least acceptable, and lamb and milk production most acceptable. Production method for pork is complicated by lack of knowledge, and for beef by issues relating to BSE. In line with the key finding that consumers use animal welfare as an indicator of more important product attributes, quality of animal feed was rated most important to animal welfare. There is variation amongst the countries in terms of decreasing consumption and substituting consumption due to concerns about animal welfare, due to the relative importance of the five key barriers to consumption. Consumers are most informed about egg and poultry production (which they believe to be the same), and beef production due to BSE. Although they are most informed about eggs and poultry production, and find this method of production among the least acceptable, they are also the most frequently consumed products and have the most positive overall image. Consumers are least trusting of the Government, the EU and the food industry and most trusting of consumer, animal welfare, environmental organisations and friends and family as sources of information about animal welfare standards. Consumers believe that farmers, food industry, the EU, the Government and butchers should take the most responsibility for ensuring acceptable standards of animal welfare, but also claim that of consumer, animal welfare, environmental organisations actually take the most responsibility.

Assessment of Strategies to Address Consumer Concerns about Animal Welfare

Preliminary Assessment

The non-academic partners reviewed the results, commented on the progress of the project, and highlighted key policy issues. The results of the assessment are summarised below.

Meat and Livestock Commission:

- Animal welfare concerns are virtually insignificant in determining consumption patterns e.g. increasing poultry consumption and increasing concern about poultry production.
- Caution should be exercised in relation to public policy to address concerns of socially privileged minority at the financial expense of the majority of consumers.
- Data should be interpreted in relation to concerns about BSE.
- Caution should be exercised in the interpretation of high consumer trust in campaign groups, which may vary across countries and could be attributable to BSE.

Bord Bia:

- Consumers have little knowledge about production practices, yet express concern about them. Such concern should be interpreted, therefore, with care.
- Animal welfare concerns are characteristic of high-income countries and consumers and, therefore, market approached should be adopted to meet that niche market demand.
- Welfare issues do not have an impact on beef and poultry consumption, which are more likely to be affected by food safety concerns.
- Limited availability of 'animal-friendly' foods is due, in part, to lack of demand and premium prices.

Eurogroup for Animal Welfare:

- There is no north south divide in European concerns about animal welfare; there is widespread concern, therefore, animal welfare should be addressed at the European level.
- Producers and retailers should provide animal welfare information on labels. Information should be clear, accurate and credible so as to avoid consumer confusion (e.g. over 'farm fresh' eggs).
- The EU and national Governments should involve animal welfare organisations in policy making, especially as consumers display high levels of trust in such organisations.
- Market forces should not determine animal welfare standards. The EU should increase support for 'animal-friendly' products and ensure acceptable minimum standards of animal welfare across Europe.
- Improved animal welfare through legislation is required which does not disadvantage EU producers. This issue should be addressed in the context of WTO negotiations.

Workshop

The strategies workshop, held in March 2001 in Brussels, with representatives of animal welfare organisations, policymakers and the food industry, aimed to devise and discuss strategies to address consumer concerns about animal welfare. The following list was devised:

Policy Makers

1. Subsidies
2. Minimum standards applied to EU and non-EU producers
3. Enforcement
4. Monitoring
5. Research/technological development/alternatives
6. Labelling: compulsory v. mandatory
7. Investment subsidies
8. Clear codes/targets for animal welfare
9. Coherent policy
10. Trust in institutions

Producers

1. Promotion of best practice
2. Increased communication and transparency of the supply chain
3. Information on implications of good practices
4. Labelling methods of production (based on consumers' right to know)
5. Niche marketing for added value
6. Advertising
7. Improving welfare through improved efficiency, training, etc.

Processors/Retailers

1. Transparency
2. Retailers communicate to consumers
3. Labelling for niche market
4. Impact on standards through legislation
5. Co-operation through supply chain

Communication

1. Better education of consumers
2. Labelling
3. Show realities of best practice
4. Funds from the Commission
5. Information : (a) neutral description and (b) evaluation/grade
6. Transparency/openness

Consumers

1. Product choice (trade-off between animal welfare and price, etc.)
2. Vote
3. Read/gather information

Focus Groups

The list of possible strategies was used as the basis for five scenarios, which were presented to groups of concerned consumers.

SCENARIO 1: COMPULSORY LABELLING

Advantages

Consumers favour compulsory labelling because it increases their awareness and allows them to make informed food choices. They prefer simple, symbolic labelling (such as colour coding) on packages that represents method of production, supported by additional information in supermarkets, and through public information campaigns, on the meaning of the symbols. Labels such as 'free-range' should have legislative meaning and be enforced by Government. Overall, consumers preferred logos rather than textual information.

Disadvantages

The main problem for consumers was lack of credibility and trust in the labels, and increased costs. Pictures, in particular, could be misleading. There is also a perceived

lack of time to pay attention to labels. Labelling may result in some consumers being able to afford to buy premium high welfare, high quality products, and lower-income consumers being unable to afford these products. Also, increased information may lead to information overload and consumers ignoring additional welfare information. Problems were identified for restaurant food. The increased costs for producers and retailers may lead to some small-scale businesses being forced to close.

SCENARIO 2: MINIMUM STANDARDS

Advantages

This strategy was perceived to have a strong impact on animal welfare standards, and should be implemented across Europe. Standards should be established by animal welfare organisations and independent scientists, and should be independently inspected, and enforced by Government. This scenario is viewed as a prerequisite for the 'compulsory labelling' strategy. Standards should also be met by imports.

Disadvantages

The main problems with this scenario are associated with setting the standards and inspecting/enforcing practices. There is concern that the minimum standard may be too low. It also requires information for consumers on what the standards are and may still require higher standard products to be labelled. Conversion to new standards and information/labelling about standards would incur costs for the consumer. Consumers are unaware of WTO rules governing control of imports.

SCENARIO 3: CHANGE IN AGRICULTURAL POLICY

Advantages

Consumers favour this 'carrot rather than stick' approach which provides incentives for farmers, and minimises costs to consumers. Farmers would be encouraged to learn about and implement higher welfare animal production practices. Providing financial support to those farmers who meet specified animal welfare standards would decrease costs and, therefore, allow farmers to remain competitive with those farmers who do not adopt higher standards and, therefore, produce cheaper products.

Disadvantages

This scenario should be given sufficient time for farmers to implement it. There are problems associated with increased Government regulation. It may lead, paradoxically, to intensification if some farmers, who are not attracted by financial incentives, intensify in order to produce more products at a cheaper price in order to become more competitive. This scenario requires minimum standards and labelling, otherwise it would be ineffective. The strategy does not address the problem of cheaper imports into the EU.

SCENARIO 4: EDUCATION OF CONSUMERS

Advantages

On the whole, consumers believe they have the right to know how food is produced in order that they may make informed food purchase and consumption choices. Consumers favour a general public information campaign supported by detailed poster/brochure

information in supermarkets and clear labelling. Agricultural education is welcomed in schools.

Disadvantages

There could be little impact on animal welfare, unless increased consumer knowledge leads to increased concern, demand for increased standards and willingness to pay for such standards. Although consumers believed that children should be taught about these issues, there was concern about educating children about animal welfare and that it needs to be restricted to general education about farming rather than evaluating methods.

SCENARIO 5: VOLUNTARY CODE OF PRACTICE

Advantages

Consumers believe this scenario will lead to education of farmers and closer co-operation between policy makers and producers. This could be useful for some niche products. The French consumers viewed this approach as the most democratic and should involve vets, farmers, animal welfare organisations and the food industry.

Disadvantages

There is concern that there would be no incentives for farmers, therefore, schemes would not work and there would be no change to animal welfare standards. With the exception of the French groups, this is perceived as the least successful scenario. Voluntary codes should lead to compulsory codes, supported by minimum standards, changes in agricultural policy and labelling. It would require independently audited quality assurance schemes. A proliferation of different labels could lead to consumer confusion and would not lead to improvements in animal welfare and, therefore, would not address consumer concern about animal welfare.

IDEAL SCENARIO

Consumers favoured a combined scenario approach to address their concerns about animal welfare. A package of minimum standards, changes in agricultural policy, supported by compulsory labelling and consumer education is viewed as the ideal strategy. A voluntary code of practice is the least popular, with the exception of the French groups, due to the preponderance of perceived disadvantages. The strategy should be EU based, with the same standards set and enforced in all EU countries (and ideally on imports). Initial voluntary schemes would give farmers the time to convert, supported by financial incentives, however this short-term strategy is the initial stage to legislative requirements based on acceptable minimum standards. The whole process requires consumer information.

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9. Deliverables for exploitation:

The project produced a number of results, which have implication for the way the EU could address consumer concerns about animal welfare and the impact on food choice. In particular:

- The results reveal that consumers are concerned about standards of animal welfare because of the impact on the wellbeing of the animals and the impact on food safety, quality and healthiness. These impacts are viewed as interdependent. Consequently, policies devised to address consumer concern must address both of these aspects.
- The fact that high levels of reported concern do not translate into food choice should not be interpreted as consumers not being concerned. The key issue is that there are a number of barriers – lack of information, lack of availability, lack of belief in personal influence, disassociation and cost – which prevent consumers from exercising their ethical preference in food choice. Policies should be devised to address each of these barriers:
 - Information: consumers clearly want more information on how their food is produced so that they can make informed choices. On the other hand, consumers do not want to accept responsibility for animal welfare and, therefore, they also engage in 'voluntary ignorance'. Consumers may also be subject to information

overload, especially on labels, and due to experience and/or desire to abrogate responsibility, judge various sources of information such as the Government and food industry as untrustworthy. An EU-based public information campaign to inform consumers about the ways in which animals are produced in the EU, which also addresses food safety and quality issues, should take into account the contradictory nature of consumer demand for information. Animal welfare labels should be subject to EU legal definition and these definitions should be a significant part of the public information campaign.

- Availability: the issue of lack of availability of ‘animal-friendly’ products is related to lack of information, confusion over current labelling, lack of demand and premiums associated with increased animal welfare. While the majority of consumers claim to be concerned about farm animal welfare, the vast majority of animal-based food is intensively produced in the EU. As more consumers become more informed about animal production, demand for more extensively produced food may increase, however, this will be subject to cost and comprehensive labelling.
- Perceived influence: many consumers believe that they are powerless, in terms of their purchasing behaviour, to affect animal welfare standards. This is contradictory to all current marketing strategies, where consumer preferences are viewed as market drivers. This issue may be compounded again by consumer reluctance to accept responsibility for animal welfare, through their demand for animal-based food products. In this way, consumers adopt a fatalistic approach to food choice. Policies to address this should encourage consumers to acknowledge their role in current animal welfare standards and ways in which they can assist in improving standards.
- Disassociation: this is probably the most difficult barrier to address as it underpins the others. Increasing urbanisation and separation of food production from consumption had led to pervasive ignorance of modern production methods and separation of the food product from the animal of origin. As consumers become more aware of animal sentience, on the one hand, and continue to demand animal-based food products, on the other, compounded by the industrialisation of animal production, consumer engage in various psychological and behavioural strategies to avoid connecting the product with the animal of origin. Such strategies simultaneously negate their complicity in the killing of animals for food. It is unclear to what extent public policy can address this fundamentally psychodynamic issue. Simply increasing information may lead to further disassociation as consumers are unwilling to acknowledge the slaughter of animals for human consumption. Policy needs to be designed in view of this, Shock tactics will undoubtedly fail. Information needs to be scientifically based, as rational as possible and comprehensible. The realities of modern animal production need to be communicated in a way that takes into account the role of various stakeholders – producers, manufacturers, distributors, retailers, exporters and consumers – and addresses their respective roles in animal welfare standards.

- **Cost:** although consumers rated this the least important barrier, it clearly has an important impact on food choice. Indeed, it is well known that consumers would rather attribute food choice to other factors. Consumers state that they are willing to pay more for improved animal welfare, yet such statements rarely translate into practice. At point of purchase, cost is one of the most important factors, as are other direct attributes, such as food safety and quality. Animal welfare is not viewed as having a direct impact on the consumer and is, therefore, not a priority when food purchasing. Where consumers do pay more, such as for ready-made meals or organic food, there are perceived direct benefits, namely convenience and health. The product which consumers do claim to buy and for which there is a significant market is free-range eggs. However, the initial cost and, therefore, the relative premium is small compared to other animal-based products. Policies devised to address cost need to take into account that although consumers say they are willing to pay, invariably they do not. The cost of improved animal welfare may need to be viewed as the cost of a public good which, although paid for by the taxpayer, is subsumed under general agricultural financial support rather than differentiated product prices. This requires redefining EU agricultural policy to provide incentives and rewards for farmers to convert to higher standards of animal welfare without passing on direct costs to consumers, which will only serve as barriers to purchase.
- Consumers prefer a combined strategic approach to their concerns which involves impacts on both the supply side and the demand side. In terms of supply, consumers favour minimum standards and reform of agricultural policy. In terms of demand, consumers favour compulsory labelling and consumer education, which should empower consumers to express their preferences for higher animal welfare standards. On the other hand, the voluntary code of practice scenario is viewed as transitional, only leading towards compulsory measures. The future of animal welfare will undoubtedly be based on a mutual development of legislative and market forces.
- Animal welfare standards in the EU need to be addressed in light of World Trade Organization (WTO) rules. Although the WTO rules do not allow distinctions to be made on the basis of non-product related process and production methods (PPMs), this research demonstrates that consumers do make such distinctions. The results show that consumers are concerned about the impact of production methods on the wellbeing of the animals and/or food safety and quality. However, a series of barriers prevents consumers translating their concerns into food choice, therefore, in spite of increasing standards of animal welfare in the EU, there remains a large competing market for imported cheaper (lower standard) animal-based food products. The fact that current WTO rules on non-product related PPMs distinctions does not allow intensively produced products to be distinguished from extensively produced products has a serious impact on the competitiveness of EU producers. Therefore, animal welfare should be part of the negotiations on agriculture at the Millenium round of the WTO. The agenda should include discussion of financial support for improved animal welfare, preferential market access for higher welfare products, mandatory labelling, reform of non-product related PPMs and application of Article XX, which currently does not include animal welfare.

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