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## **WORKING PAPER**

# **SUSTAINABLE FOOD CONSUMPTION: EXPLORING THE CONSUMER ATTITUDE – BEHAVIOUR GAP**

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# SUSTAINABLE FOOD CONSUMPTION: EXPLORING THE CONSUMER ATTITUDE – BEHAVIOUR GAP

**ABSTRACT.** Although public interest in sustainability increases and consumer attitudes are mainly positive, behavioural patterns are not univocally consistent with attitudes. The presumed gap between favourable attitude towards sustainable behaviour and behavioural intention to purchase sustainable food products is investigated in this study. The impact of involvement, perceived availability, certainty, perceived consumer effectiveness (PCE), values, and social norms on consumers' attitudes and intentions towards sustainable food products is analysed. The empirical research builds on a survey with a sample of 456 young consumers, using questionnaire and an experimental design with manipulation of key constructs through showing advertisements for sustainable dairy. Involvement with sustainability, certainty, and PCE have a significant positive impact on attitude towards buying sustainable dairy products, which in turn correlates strongly with intention to buy. Low perceived availability of sustainable products explains why intentions to buy remain low, although attitudes might be positive. On the reverse, experiencing social pressure from peers (social norm) explains intentions to buy, despite rather negative personal attitudes. This study shows that more sustainable and ethical food consumption can be stimulated through raising involvement, PCE, certainty, social norms and perceived availability.

**KEY WORDS:** attitude, behaviour, consumer, food, sustainable consumption

## INTRODUCTION

In the wake of the series of crises within the European agro-food system, culminating in BSE and food and mouth, the general public in Europe seems to have lost its confidence in food safety (Jensen and Sandoe, 2002). Interest in sustainability, sustainable production and consumption has increased at all levels of the agriculture and food chain increasing the potential influence of sustainability claims on consumers' purchase decisions.

Sustainable consumption is based on a decision making process that takes the consumer's social responsibility (animal welfare, environment, fair trade) into account in addition to individual needs (taste, price, and convenience) (Meulenberg, 2003). Like for any marketable product, consumer acceptance is vital for the success of sustainable products. The segment of consumers who consciously buy ethical or sustainable products, like organic, fair trade or animal friendly, is increasing (Strong, 1996; Crane, 2001). However, everyday consumption practices are heavily driven by convenience, habit, practice and "individual responses to social and institutional norms" (SDC, 2003) and are likely to be resistant to change. Yet, the diversity and

complexity of the motivations involved means that in reality there is a considerable scope for change. An important driver for change, particularly with respect to sustainability concerns, is the tendency towards reflexivity within a post-modern society, whereby society actively reflects upon existing cultural norms. This collective cultural appraisal is then transferred to the level of the individual through narrative and discourse (SDC, 2003). The notion of a 'reflexive consumer' refers to a consumer who is not necessarily a social activist, but someone who seeks to make his own individualised risk assessment (e.g. Dupuis, 2000). This tendency has been stressed by globalisation processes which have distanced the individual consumer from the social and environmental context of the goods they are buying, and reduced the capacity of governments to exercise effective control of the risks involved (Kirwan, Slee and Vorley, 2003). Furthermore, in the past ten years, the ethical consumer perceives a more direct link between what is consumed and the social issue itself. This kind of consumerism mainly incorporates environmental issues but also extends to animal welfare, human rights and labour working conditions in the third world (Tallontire, Rentsendorj and Blowfield, 2001). In general, the ethical consumer feels responsible towards society and expresses these feelings by means of his purchase behaviour.

Dupuis (2000) argues that food is a particularly important focus for reflexive consumers, since food consumption is a negotiation about what a person will, and will not, let into his or her body. Nevertheless, research conducted by the IGD (Institute of Grocery Distribution) suggests that consumer decisions about food and shopping are 'unashamedly selfish', based on value for money, health concerns, taste, appearance and convenience, rather than being driven by altruistic motivations such as animal welfare and care for the environment (IGD, 2002a). This finding is endorsed by FSA (Food Standards Agency) research which also highlights price, convenience and value as the three primary issues for consumers when shopping for food, as well as keeping within the family budget, satisfying children's demands, and getting the family to eat a balanced diet (FSA, 2000). Specifically in relation to the countryside, consumers seldom seem to make the link between the food they eat and the wider environment in which it is produced, usually taking the countryside and its associated benefits for granted (Enteleca, 2001). Similarly, IGD research has found that few people consider the impact of what they decide to buy on anyone or anything but themselves or their family, usually making minimal connections between the food they buy and issues relating to the environment, animal welfare and fair trade. In addition, it seems that even where consumers are interested in production issues; this will not necessarily influence what they buy (IGD, 2002b).

All these trends suggest that a lot of consumers may not be open to sustainable consumption. However, the number of consumers concerned about ethical issues has increased in recent years. Mintel (2001a) suggests that consumers appear to be increasingly willing to take positive actions such as becoming vegetarian or paying more for organic products, and less willing to take negative actions such as boycotting products from certain countries. One quarter of the consumers are considered to be ethical by Mintel, with a further 46% relatively ethical. In addition, 46% of the European consumers claim to be willing to pay substantially more for ethical products (MORI, 2000). However, many consumers are not highly confident in their capacity to

purchase sustainable foods (Robinson and Smith, 2002). In addition, 'buying local' has become an ethical issue, incorporating a range of civic concerns that include acknowledging local products as being environmentally friendly, animal welfare friendly, good for the local economy and community or organically produced (Mintel, 2003). Most consumers are prepared to try local foods (at least in principle), but this was usually conditional upon it being measured against issues of price, convenience, accessibility and perceived quality (Weatherall, Tregear and Allinson, 2003).

The critical question, however, is the extent to which interested consumers turn their expressed interest into actual purchasing habits, in that even where consumers have concerns about 'conventionally' produced food, their support for alternatives is usually conditional and often determined by price or availability issues. Practice shows that most of the ethical labelling initiatives like organic food, products free from child labour, legal logging and fair-trade products often have market shares of less than 1% (MacGillivray, 2000). This is at least partly due to the attitude-behaviour gap: attitudes alone are often a poor predictor of marketplace behaviour (Ajzen, 2001; Kraus, 1995). Only a small part of the consumers are taking ethical labels into account (Dickson, 2001). In the case of ethical products, the most important reason to explain the difference between attitude and behaviour can be that the ethical criterion is just not taken into account and that respondents give socially desirable answers. Another potential explanation is that price, quality, convenience and brand familiarity are still the most important decision factors (Carrigan and Attalla, 2001), while ethical factors are only taken into account by a minority of consumers.

Although consumer interest in sustainable products may be growing, sustainable food markets remain niche markets attracting consumers with a specific profile. In general, the ethical consumer is a middle aged person with a higher income, who is above-average educated, with a prestigious occupation and who is well-informed (Maignan and Ferrel, 2001; Roberts, 1996; Carrigan and Attalla, 2001). Gender does not seem to influence ethical decision-making (MORI, 2000; Tsalikis and Ortis-Buonafina, 1990; Sikula and Costa, 1994). Roberts (1995) and Diamantopoulos, Schlegelmilch, Sinkovics and Bohlen (2003) concluded that demographics alone – that are often used as the main market segmentation variables – are not very significant in defining the socially responsible consumer because ethical concern and awareness have become widespread. Roberts (1996) stresses the importance of variables such as relevant attitudes, behavioural and personality characteristics that can identify the possible ethical consumer.

Despite several papers reporting on barriers and consumer profiles, there is a gap in thorough understanding of consumer decision-making towards sustainable food consumption. Hence, the objective of the present study is first, to investigate the attitude – behaviour gap that often occurs, and second, which factors influence the consumer decision-making process towards sustainable food. More specifically this study explores the role of attitudes, intentions, involvement, perceptions and values and investigates the link between these constructs. We start from the premise that positive attitudes towards sustainable food products are not necessarily followed by positive intentions, in contrast with the theory of reasoned action (Ajzen and Fishbein, 1974). The

validity of this theory of reasoned action, which states that positive attitudes are inevitably succeeded by positive behavioural intentions, has frequently been debated in the specific case of food products (e.g. Kokkinaki and Lunt, 1997). We introduce several individual/situational characteristics (i.e. involvement, perceptions, and values) that could explain sustainable consumption patterns in general and specifically the attitude-behaviour gap. Finally, the aim is to formulate recommendations for stimulating sustainable food consumption among specific segments of young consumers. Since it is important to convey messages appealing to consumer attitudes and beliefs about sustainable produced foods, rather than to specific predetermined socio-demographic segments (Robinson and Smith, 2002), our results can assist in future attitude-targeted marketing efforts to effectively promote sustainable produced foods.

## BARRIERS TO SUSTAINABLE FOOD CONSUMPTION

Personal (e.g. ignorance about sustainable products) as well as contextual (e.g. lack of sustainable products) factors may inhibit sustainable purchases. Literature review reveals three main barriers for sustainable consumption: price, remoteness between production and consumption, and real or perceived availability of sustainable products. Recent research shows that 52% of consumers were interested in purchasing “earth-sustainable” foods, but did not purchase those foods owing to the perceived barriers of lack of availability, inconvenience and price (Robinson and Smith, 2002). Price seems to be the most important barrier of sustainable products. The price of sustainable products is perceived as being too high and often causes a negative attitude (cfr. Cera-foundation, 2001; De Pelsmacker, Driesen and Rayp, 2003). For instance, Thompson and Kidwell (1998) found that the average price premiums found in stores for organic products ranged from 40% to as high as 175% while much willingness to pay studies have concentrated on premiums from 5% to 25% above conventional prices. Even when a consumer is able to afford sustainable food products, there is frequently insufficient information to encourage them that the extra expense is worth it.

A second barrier is the remoteness between production and consumption. It concerns consumers’ limited knowledge of agriculture and its production processes and a lack of insight in the implications of food purchase decisions on the lower levels of the food supply chain (e.g. Dickson, 2001). Few respondents consciously make connection between the foods they eat and, for example, the wider countryside and food supply chains. Some simply do not care about the origins of the food they buy, but many might do so if they had more knowledge and understanding of the issues involved. A lack of information does not only concern the agricultural and food production process, but in many countries there is also a lack of knowledge and confusion on the concept sustainability and the corresponding logos and labelling. Logos and labelling are often confusing and inadequate for consumers, leading many of them to lose interest in the underlying messages (Verbeke and Viaene, 1999; Verbeke and Ward, 2004). A related barrier is that sustainability is a credence attribute, which means that consumers can not evaluate it personally, though have to put trust in the source that claims sustainability. This hampers the creation of authority and trust (e.g. Dickson, 2001), and

more so, there is widespread distrust in the science-based governmental control systems, particularly in Europe after some consecutive food safety crises (Jensen and Sandoe, 2002).

The third major barrier pertains to the availability of sustainable products (e.g. Dickson, 2001). This problem is related to the scarcity of local food shops such as farmers' markets, which often lack the regularity, and convenience demanded by consumers (difficult access, opening hours,...), the limited and non-continuous presence of sustainable products in supermarkets as this is the major purchasing point of many consumers (Vannoppen, Verbeke and Van Huylenbroeck, 2002). In addition, ethical products are often not really visible in the shop and/or inadequately promoted (De Pelsmacker et al., 2003). However, supplying sustainable food products through supermarkets should not preclude improving consumer access to sustainable products through more localised outlets, such as local food shops and farmers' markets, where improving their convenience and logistical efficiency should be considered.

## THEORETICAL FRAMEWORK

The consumer behaviour model introduced by Jager (2000) serves as the basis for a conceptual framework to investigate consumer behaviour towards sustainable food products. The three main determinants of consumer behaviour with relevance to sustainable consumption are values, needs and motivations, information and knowledge, and behavioural control (see figure 1). These elements have an indirect influence on the decision making process of the consumer, through involvement, uncertainty, and availability and perceived consumer effectiveness, respectively.

----- Insert Figure 1 -----

### *Decision-making: attitude and consumption behaviour*

A positive attitude towards sustainable products is a good starting point to stimulate sustainable consumption. Several studies concentrated on attitudes towards sustainability and sustainable consumption behaviour (Tanner and Kast, 2003; De Pelsmacker et al., 2003; Gordier, 2003; Bissonette and Contento, 2001; Chan, 2001; Verbeke and Viaene, 1999; Shrum, McCarty and Lowry, 1995; Shamdasani, Chon-lin and Richmond, 1993). In general, about 30% of the consumers have a positive attitude towards sustainable products. The latter declare to pay attention to ecological packaging, the origin of the food products or the absence of GMO's and buy regularly organic food *products*. Sustainable products are perceived to be better with respect to taste, quality, safety, and freshness, contribution to regional economies and identity, impact on human health and on the environment. A more negative attitude is found for the aspects price, appearance, convenience and conservation.

Literature review of existing consumer research suggests that although most consumers express willingness to pay more for sustainable produced products, only a minority is currently able or really willing to pay a premium for these products. So although people may have a positive attitude, they are largely passive in their role as consumer when it comes to supporting environmental or animal welfare improvements with their available budget. For example in the case of organic products, Grunert and Juhl (1995) showed that a positive attitude does not necessarily lead to the desired behaviour (i.e. the purchase and consumption of sustainable food products). One quarter of the respondents never bought organic foods despite strong positive attitudes. On the contrary, 40% of the consumers who attached low relevance to environmental values (i.e. low or negative attitude) claimed to buy organic foods. Another example is provided from a study about buying intentions for coffee with a fair trade label (De Pelsmacker et al., 2003). Although 11% of the Flemish consumers claimed that fair-trade is all-important, the market share of fair trade coffee remains below one percent in Belgium. Similarly, Mintel (2001b) suggests that 71% of the adult population feel and think positively about sustainable, organic foods and are now potential purchasers of sustainable organic foods. However, market shares remain well below 5-10% in most countries, which illustrates that consumers' behaviour in the marketplace is not consistent with their reported attitude towards sustainable products

Consumers are principally concerned with personal issues when it comes to food choice, and are generally vague about the global issues involved, or how their purchasing choices may affect, for example, the countryside. Different explanations can be suggested for the gap between the positive attitude and intention of consumers and their actual purchase behaviour. For example, behaviour based on habit can be a reason for the low market share of sustainable products. Even if consumers have good intentions to buy sustainable products, once in the shop consumers will search for their habitual products or will be influenced by situational factors, such as promotion. A recent study on purchase intentions towards sustainable foods shows that psychosocial variables (compared to demographics) like attitudes, beliefs, perceived behavioural control and subjective norms independently predict purchase intention for sustainable products (Robinson and Smith, 2002). Furthermore, Minteer, Corley and Manning (2003) argue that situational context influences influence choices more than environmental ethics (i.e. general moral principles). Thus, several other individual/situational characteristics could be put forward to explain this gap because other factors in addition to attitudes determine the decision making process. Examples are values, knowledge and perceived behavioural control (Jager, 2000). Consumer purchasing decisions often incorporate a complex variety of motivations that complicates an understanding of particular instances. Specific attitudes may suggest a specific behaviour when taken in isolation, but this may not be the case when considering the broader purchase decision. Additional attitudes come into play, moderating behaviour, diluting the impact of other attitudes and resulting in an alternative outcome.

### *Personal values, needs, motivations and involvement*

Human values are referred to as relatively stable beliefs about the personal or social desirability of certain behaviours and modes of existence. Values express the goals that motivate people and appropriate ways to attain these goals. Values can play an important role in the consumer decision process like product choice and brand choice (Engel, Blackwell and Miniard, 1995; Burgess, 1989). Values motivate action, giving it direction and emotional intensity (Schwartz, 1994). For instance, Vitell, Singhapakdi and Thomas (2001) found that consumers are more guided by principles or values (deontology) than by consequences (teleology) when making ethical decisions.

There is a wide diversity of motivations to choose for some kind of sustainable products and these motivations are different according to the personal values of the consumers. Consumers do not always buy sustainable products as a consequence of environmental concern or to benefit the community (e.g. care for the environment, creation of employment, animal welfare) or because of personal beliefs (e.g. idealism, civic spirit). The decision is often a consequence of the need to save money and time, to give priority to health (i.e. security, certainty, protection, stability), to feel part of a social group (i.e. following social norms), to distinguish from others, to fulfil the need to try out new technologies or to look for the most easy and comfortable way of living (Boulstridge and Carrigan, 2000).

Involvement or perceived personal importance can act as a motivational force in the consumer decision process. Involvement is activated when the object (a product, service, and promotional message) is perceived as being instrumental in meeting important needs, goals and values. People are motivated to invest cognitive effort in a decision making process when they are high involved for example because an important personal need is not satisfied, while habitual behaviour occurs when consumers have low motivation (i.e. low involvement) due to satisfied needs (Jager, 2000). Involvement influences the extensiveness of information search, the 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 and shopping enjoyment (Verbeke and Vackier, 2004; Beharrel and Dennison, 1995).

Numerous studies have linked ethical or sustainable behaviour to personal values (see Vermeir and Verbeke (2004) for an overview). In general, the values universalism, honesty, idealism, benevolence, self-direction, equality, freedom and responsibility have been linked to sustainable consumption, whereas ambition, hedonism, power, tradition, security and conformity were associated with less ethical or less sustainable consumption patterns. The confirmation of a causal influence between some values like universalism to a sustainable consumption pattern implies that promoting the right values through socialisation and national institutions can facilitate the achievement of the long-run goal of sustainable consumption (Thøgersen, 2001). However, Thøgersen (2001) also argues that in the short run the extent of sustainable behaviour depends much



more on more specific factors, such as habits, specific attitudes and preferences and on opportunities to engage in sustainable consumption.

### *Information, knowledge and uncertainty*

Access to clear and reliable information on the products is an important factor in the decision process. The benefits of sustainable products are often poorly communicated to consumers, so that they are unable to make informed purchasing decisions in accordance with their budget and/or conscience. The less information available and/or the more complex and contradictory this information is, the more uncertain consumers may be regarding what products to choose. Uncertainty will/can lead to the use of social information, which means that consumers will look at other people to get an indication of the best outcome. One way of providing information is through product labelling. However, Verbeke and Viaene (1999) also found a large contrast between knowledge and perception of labels and the exact labelled beef features. In addition, research about the awareness of sustainable labels in general and a specific fair-trade, organic label (Gordier, 2003) and sustainable fruit labels (Vannoppen et al., 2002) revealed that both unaided and aided awareness of students about sustainable labels was very low. Problems with knowledge at the consumer level point out that communication should focus primarily on spreading factual information rather than on building image around the label. In sum, these studies show that few consumers have a high awareness or comprehension of the real sustainable characteristics of products. Lack of transparent and factual information yields uncertainty at the consumer level.

### *Behavioural control, availability and perceived consumer effectiveness*

The third potential determinant of consumer decision-making is the availability of sustainable products, which is related to consumer's behavioural control. Availability refers to the ease or difficulty to obtain or consume a specific product. Although the motivation to consume sustainable products is high, it may be impossible to do so because of low availability. Behavioural control indicates whether the consumer can easily consume a certain product or whether its consumption is difficult or impossible. The availability of sustainable products is only one aspect that has an influence on consumers' behavioural control with respect to sustainable consumption. Another aspect related to behavioural control is the perceived consumer effectiveness, which is the extent to which the consumer believes that his personal efforts can contribute to the solution of a problem. High perceived consumer effectiveness (PCE) is necessary to evoke consumers to translate their positive attitudes towards sustainable products in actual consumption (Lee and Holden, 1999; Roberts, 1996; Berger and Corbin, 1992; Ellen, Wiener and Cobbwalgren, 1991). Roberts (1996) suggests that in order to motivate behavioural changes, consumers must be convinced that their behaviour has an impact on, for example, the environment or will be effective in fighting environmental degradation.

## RESEARCH METHOD

### *Study objectives and design*

To gain a better insight in sustainable consumption, a survey with measurement of attitudes and behaviour towards sustainable dairy products as well as some individual/situational characteristics like involvement, certainty, availability, perceived consumer effectiveness (PCE), social norms and values related to sustainable products was organised. More specifically, we tried to manipulate the respondents' level of four constructs: involvement, certainty, availability and PCE. Manipulations were used instead of measuring the existing levels of the variables for several reasons. First, manipulations of constructs provide better to derive consequences (Iacobucci, 2001). Second, fairly equal groups were needed to ascertain the influence of the constructs on attitudes and behaviour. If we measured existing levels of involvement for example, chances are that a considerable amount of the respondents are rather low involved towards sustainable consumption (cf. Dickson, 2001), while few respondents are high involved. Finally, if these individual or situational characteristics influence sustainable consumption, it is important to be able to manipulate them in order to increase sustainable behaviour, for instance through future communications. Values and social norms were measured (not manipulated) because values and social norms are inherent to each person and are almost impossible to change (or manipulate), especially in the short term. Values and social norms are deep-seated ideas and motivations that are relatively stable over a consumer's life span. Identifying values/social norms that are associated with high/low sustainable consumption could help us explain why some consumers are (un)willing to invest in a sustainable future, hence providing policy makers with the necessary information which values/social norms to express in their communications.

### *Materials*

Involvement was manipulated by presenting half of the respondents an article about sustainable consumption. The article describes what sustainability actually is (e.g. ecological and social) and which advantages sustainable products could have for the consumer (e.g. safety, health, taste, and quality), the environment (e.g. pollution) and the society (e.g. unemployment, fair trade). Previous research shows that consumers become more involved with a product or service when the personal consequences are highlighted and the importance of the product is emphasised (cf. Engel et al., 1995). The other respondents read an article that was similar as far as length, writing style and difficulty but discussed a tourist national park. The aim was that respondents who read the article about sustainability become more involved towards the subject, while the other respondents retain their inherent (i.e. predominantly low, cf. Dickson, 2001) involvement level towards sustainability.

To manipulate availability, certainty and PCE, three advertisements that respectively stress the availability, certainty and PCE of sustainable products were constructed. The case of sustainable dairy products with the

fictive brand name 'Le Fermier' was considered. Dairy products were chosen because they are one of the most frequently purchased organic products (Cera-foundation, 2001). In the 'high availability' ad, respondents were informed that Le Fermier products are widely available, while websites and free phone numbers were provided to check the nearest-by selling point of Le Fermier products. In the 'high certainty' ad two existing labels were shown – one organic and one social label – that supposedly provide the consumer with certainty that the Le Fermier are indeed ecologically and socially sound. The 'high PCE' ad contained a short statement that informs the respondents that they can contribute to a better world by reacting to unfair or unsustainable actions. An example was given where pressure exerted by consumers led to better prices and working conditions for farmers. Finally, a 'control' advertisement was created where no information about availability, certainty and PCE was provided.

Existing scales for measuring involvement and PCE (Roberts, 1996) were used. A scale to test the availability (3 items) of Le Fermier products was constructed. For example, respondents had to indicate on a 7-point scale to which degree they thought that Le Fermier products are easy to find in their neighbourhood. In order to assess certainty, respondents were asked to indicate how certain they were about 5 items on a 6-point scale (e.g. how certain are you that Le Fermier products are ecologically and socially sound). Social norms were measured with the scale previously used by Verbeke and Vackier (2004). The Schwartz list of values (1992) was used to determine consumer values. Finally, attitudes toward (buying) Le Fermier products and behavioural intentions were determined by using classical existing scales.

### *Data collection*

The sample for this study consisted of 456 youngsters following higher education in the age group 19-22 drawn from the population of Flanders. The rationale for focussing on this population is twofold. First, youngsters constitute the consumers of the future, who should be capable of making a difference in the next half-century. They will take their habits into their older age and therefore provide policy makers with ample possibilities to create sustainable food consumption habits within the population. Second, we deliberately chose higher educated youngsters because they supposedly have some knowledge on the concept of sustainability. If respondents do not know the concept of sustainability, attitudes (positive or negative) and behaviours (high or low) might be non-existing, making it impossible to categorise respondents according to their attitude/behaviour. Furthermore, it would be quite difficult for lay people to answer the questions about availability, certainty and perceived consumer effectiveness of sustainable products.

Questionnaires were administered collectively during classes. The respondents were offered a questionnaire at random when entering the classroom. The questionnaire consisted of one text (increasing involvement or neutral text), one advertisement (control or which either stimulates availability, certainty or PCE) and numerous items measured on interval scales. In addition questions about gender, place of residence and knowledge of sustainable aspects of food consumption were included. Respondents first answered the

demographic and knowledge questions and completed the Schwartz value questionnaire. Next, respondents were instructed to carefully read the magazine article about sustainable consumption or the text about a tourist national park, and complete the involvement questions. Finally, one of the four advertisements for Le Fermier dairy products was shown and the respondents were instructed to complete the questions dealing with attitude, behaviour, involvement, certainty, availability, social norms and PCE. The different versions of the advertisement were randomly assigned to the respondents. Each advertisement was shown to an equal number of respondents.

## EMPIRICAL FINDINGS

Data analyses methods include ANOVA, t-tests and correlation analyses. Preliminary construct reliability checks showed that all constructs displayed ample reliability with Cronbach's alpha exceeding 0.60 value for all scales (table 1).

----- Insert Table 1 -----

Mean attitudes towards buying Le Fermier products were 5.09 on a 7-point scale, while mean behavioural intentions were 4.19. The correlation between attitude towards sustainable consumption and behavioural intentions is strongly positive ( $r=0.666$ ,  $p<.001$ ). Four groups of respondents were identified based on attitude towards buying (low, high) and intention to buy sustainable Le Fermier products (low, high) using median split. The amount of respondents and relevant demographics per group are presented in table 2. In general, women have significantly more positive attitudes towards buying Le Fermier products ( $\chi^2=8.856$ ,  $p<.01$ ;  $F(1, 452)=14.658$ ,  $p<.000$ ) and higher intentions to buy ( $\chi^2=18.299$ ,  $p<.001$ ;  $F(1, 452)=24.795$ ,  $p<.001$ ) as compared to men. No differences are found in attitudes and intentions for respondents who live in the city versus the countryside or for respondents who differed in claimed knowledge of sustainability. However, a tendency is observed that high knowledge of sustainability associates with attitude – intention consistency (i.e. either low/low or high/high on both items). As shown in table 2, majorities of consumers have either a low attitude and low behavioural intention or a high attitude and high behavioural intention, in line with consumer behaviour theory. However, also a considerable amount of our respondents have opposing attitudes and intentions. Some consumers ( $n=43$ , 9.4%) feel strongly positive towards buying sustainable Le Fermier products, while they are not planning to engage in this purchase. On the other hand, some consumers ( $n=80$ , 17.5%) are planning to buy these sustainable dairy products, even though they do not feel very positive. To explain these inconsistencies, differences in terms of involvement, availability, certainty, PCE, social values and values between the four different groups are scrutinised.

----- Insert Table 2 -----

Before considering the four segments individually, we tested if consumers with different attitudes and intentions in general had different individual/situational characteristics. Mean scores are displayed table 3. Consumers who have high (versus low) attitudes towards buying sustainable products are more involved with

sustainable consumption ( $F(1, 444)= 22.67, p<.001$ ). Also consumers with high (versus low) behavioural intentions are more involved with sustainable consumption ( $F(1, 444)= 4.18, p<.05$ ). No significant differences were found in perceptions of availability for consumers who have high versus low attitudes towards buying sustainable products, while consumers who are planning (versus not planning) to buy Le Fermier products believe that these products are more available ( $F(1, 450)= 14.927, p<.001$ ). Consumers with high (versus low) positive attitudes ( $F(1, 451)=19.645, p<.001$ ) and behavioural intentions ( $F(1, 451)= 41.196, p<.001$ ) towards sustainable consumption are more certain that Le Fermier products are indeed sustainable. Perceived consumer effectiveness differed both for high/low attitudes ( $F(1, 446)=7.039, p<.01$ ) and high/low behavioural intentions ( $F(1, 446)=13.990, p<.001$ ). Consumers who have a high attitude or behavioural intention towards sustainable consumption believe stronger that an individual consumer can make a difference for the environment and general society. Social norms differed significantly for high/low attitudes ( $F(1, 444)= 6.189, p=.01$ ) and high/low behavioural intentions ( $F(1, 444)= 17.541, p<.001$ ). Consumers who have a high attitude or behavioural intention towards buying sustainable products express a stronger feeling that their family or friends expect them to buy sustainable products. More specifically, consumers with different attitudes and behavioural intentions adhere different values. We analysed those Schwartz values that are either self-transcending or self-enhancing (e.g. universalism, benevolence, versus hedonism, achievement and power). Consumers who have high (versus low) positive attitudes towards sustainable consumption adhere more universalism ( $F(1, 433)=4.942, p<.05$ ) and less power ( $F(1, 445)=4.731, p<.05$ ), while no differences exist for hedonism and achievement. On the contrary, consumers who differ in behavioural intentions towards sustainable consumption do not differ in their values.

----- Insert Table 3 -----

In addition, we tested if our manipulations of involvement, availability, certainty and PCE lead to different levels of the specific variables. Consumers who read the text about sustainable consumption were afterwards more involved with sustainable consumption compared to consumers who read the text about the tourist national park ( $F(1, 454)= 4.160, p<.05$ ). Furthermore, consumers who received the advertisement that should enhance the perception of availability, reported a higher level of perceived availability compared to consumers who received other ads ( $F(1, 457)= 21.944, p<.001$ ). Contrary to our expectation consumers who received the advertisements, which should stimulate PCE, respectively certainty did not report a higher PCE, respectively certainty compared to consumers who received the other ads.

## DISCUSSION

This empirical study indicates that young consumers are rather high involved with sustainable food consumption. This confirms previous research on adolescent's perspectives of environmental impacts on food (Bissonette and Contento, 2001). Furthermore, consumers with high involvement have more positive attitudes and are more willing to purchase sustainable products. In addition, the manipulation of involvement

contributed to increase involvement levels of consumers. Hence, confronting consumers with the advantages of sustainable consumption yields higher personal importance attached to sustainability.

Respondents in general believe that an individual consumer can contribute to protecting the environment and improving producer's welfare (contrary to Roberts, 1996). Furthermore, consumers who believe in their personal consumer effectiveness are more positive towards and intending to purchase sustainable products. However, the manipulation of PCE did not make consumers believe stronger in their personal capacity to make a difference. Possibly the example provided (Chiquita banana) was too distant to really be of concern for Flemish consumers. An example of local farmers who are helped by purchasing sustainable products or local nature reserves that are saved or recovered thanks to local consumption patterns might have worked better. Another potential explanation is that PCE is strongly inherent to a person and hard to change in the short term.

With respect to the fictive dairy Le Fermier products, consumers do not really believe that they are easily available. One possible explanation for the low perception of availability could be the overall picture that is associated with sustainable products. The general public believes that sustainable products are difficult to obtain and this image will not easily be shattered. Consumers probably expect that they will have to drive to a farm on the countryside or to a specialised store to find sustainable products. Previous research suggests that consumers are often interested in buying local, sustainable products because these are perceived to benefit the local area, and yet have cheaper prices, convenience and accessibility are likely to encourage consumers to buy more local products (Weatherell et al., 2003; Purlow, 2000). We found that availability could indeed act as a barrier for sustainable consumption; consumers who believe that sustainable products are less available, intend less to purchase these products. However, we were able to increase the perception of availability of consumers by simply adding an Internet address and telephone number. Even though consumers have to display some effort to find out where they can purchase Le Fermier products, consumers did rate Le Fermier products as higher available after being confronted with the ad.

Consumers somewhat believe that Le Fermier products promote sustainable consumption regardless of our manipulation of certainty. Certainty about sustainability claims associates with more positive attitudes and stronger intentions to buy these products. However, the labels included in the advertisement did not increase perceptions of certainty. This is unexpected since the organic label used is well known. Maybe this label is mainly associated with more healthy food rather than with a more sustainable production method. The other label – focussing on social aspects of sustainability – is less present in daily purchase situations, which might have hindered the confidence attached to the label. Another potential explanation is that our results confirms previous studies that indicate the relative impotence of food labels with respect to raising consumer's perception on credence attributes. Furthermore, consumers in general are not really convinced that friends or family want them to buy sustainable products. This implies again that sustainable consumption in Flanders is not a general goal or striving. We found that consumers, who adhere high social norms concerning sustainable products, did have more positive attitudes and intentions towards local, sustainable products. In addition,

certain potential consumers of local foods might in fact be concerned with preserving the environment or fair wages and less involved with wealth and image, since we found that consumers with positive attitudes towards local sustainable products score high on universalism and low on power.

The empirical findings indicate that sustainable products can be promoted to the broader public through specific communication efforts that lower perceived barriers to consumption. Previous research suggests that sustainable consumption should not be promoted on the basis of the goodness of being a sustainable consumer, norms, collective rationality or environmental ethics, since the ethos of environmentalism or sustainable consumption cannot compete with the consumption ethos (Ger, 1999). Our results show that the value of local sustainable products could be directly promoted by emphasising personal relevance and importance to the individual (i.e. increasing consumer involvement), informing consumers about product availability, informing consumers about their possible effectiveness, or increasing the social pressure associated with sustainable consumption.

In order to promote sustainable consumption, we could opt to influence consumer values. However, value-based policy proposals that respond to an alleged need to change basic “consumerist” values are hard to realise and call for a long-term approach. Consumers do not change their values on a day to day basis, while behaviour based solutions that emphasise the need for social and institutional changes that facilitate environmentally sounder consumer behaviours on a case-by-case basis are much more feasible (Goodwin, Ackerman and Kiron, 1997).

Consumers are clearly not a homogenous group, and raising their awareness of the issues involved within food production needs to be targeted accordingly. Different strategies exist to reach different consumer groups can be recommended from the current research. Consumers who think it is very positive and meaningful to buy Le Fermier products and indicate that there is a good chance that they will buy Le Fermier products are generally more involved with sustainable consumption. They believe that one consumer can make a difference to promote a sustainable future, are fairly certain that Le Fermier products are sustainable, and believe that these products are readily available. In addition, these consumers do not really believe that their friends or family find it important that they buy sustainable products. Finally, they think it is very important that the world is a beautiful and peaceful place where everybody has equal opportunities, social justice exists, people are tolerant, wise, feel one with nature and protect the environment, while influence, image, authority, social power and wealth are less important (compared to the other groups) (cf. Vannoppen, Van Huylenbroeck and Verbeke, 2004). For these consumers, values like influence, image, authority, social power and wealth are less important as compared to the other. Based on their characteristics, we argue that communication towards these consumers should focus on the rightness of their behaviour. Marketers or policy makers could cheer their efforts and emphasise all the advantages that are associated with sustainable consumption (both for the consumer and for the broader environment and society).

Consumers who do not feel positive or sensible about buying Le Fermier products and do not intend to buy these products are low involved with sustainable consumption. They have a neutral position on the perception of consumer effectiveness and are uncertain that Le Fermier products are really sustainable. They also believe that Le Fermier products are not easily available in their neighbourhood. In addition, these consumers do not believe that their friends and family think that they should buy sustainable products. Values like power, wealth, image, authority and influence are more important to them (compared to other groups). Probably the most effective strategy would be to envisage a change of these consumers' values from an emphasis on power and authority to striving for a better world, but this long-term goal would be hard to realise (cf. Goodwin et al., 1997; Thøgersen, 2001). A more feasible short-term strategy could be to enhance involvement of these consumers by stressing the personal benefits of sustainable products, with a focus on 'selfish' needs. Individualistic needs, such as security about health consequences, hedonistic and social needs and the need for economic reasoning could be used to stimulate sustainable consumption among this consumer segment. In addition, availability, PCE and the reliability and knowledge of labels should be underlined, since these consumers poorly rate these constructs.

The two remaining segments (together accounting for more than one quarter of the sample) display conflicting attitudes and behavioural intention, hence illustrating the existing attitude-behaviour gap. Some consumers have a very positive attitude towards buying Le Fermier products, but are not intending to buy these products. The most plausible explanation for this inconsistency is their idea that Le Fermier products are not easily available in their neighbourhood. Nevertheless, these consumers are involved with sustainable consumption, they are relatively sure that Le Fermier products are sustainable and they believe that one person could make a difference to promote a sustainable future. The most straightforward strategy to stimulate these consumers to buy sustainable food is by stressing and demonstrating the availability of sustainable products. As mentioned before, providing a telephone number or Internet address could be sufficient to win them over. Even more effective would be to organise a better supply of sustainable products in supermarkets. Furthermore, these consumers should be patted that they adhere sustainable values and have positive attitudes towards sustainable products. Furthermore, communication could stress the reliability of labels as these features are not strongly believed in. Finally, increasing their involvement could lead them to display more effort to search for the availability of sustainable products.

Finally, some consumers do not feel positive about buying Le Fermier products, but claim it is very probable that they will buy these products. Data show that this inconsistency could be understood in terms of their belief about social norms. These consumers believe that their friends and family find it fairly important that they buy sustainable products. Possibly, they intend to buy Le Fermier products for social reasons. Furthermore, they are not really highly involved with sustainable consumption. These consumers believe that Le Fermier products are available in their neighbourhood; they are relatively certain that Le Fermier products are sustainable and partly believe that one person could make a difference to promote a sustainable future. A potentially successful strategy is to underline and confirm the social norms and pressure from peers that the



consumers are subject to. In this way, these consumers would be more prone to follow their impression that friends and family believe they should purchase sustainable products. However, this strategy depends largely on the (perceived) beliefs of friends and family. A more controllable strategy would be to also influence these consumers' personal involvement level. In addition, the presence and trustworthiness of sustainability labels should also be underscored for this consumer segment.

## CONCLUSIONS

A substantial number of studies show that consumers value the ethical aspects in a product that attitudes are quite favourable, but also that behavioural patterns are not univocally consistent with attitudes. The presumed gap between favourable attitude towards sustainable behaviour and behavioural intention to purchase sustainable food products is explored and its prevalence is confirmed in this study. In this study, we tried to go explore the attitude – behaviour gap by analysing consumer attitudes and purchase intention for sustainable dairy products. As a fast moving, low involvement good, this product has several attributes to which a consumer pays attention: price, brand, convenience, package, ingredients, taste and maybe also the presence of a credence attribute like sustainability. We investigated the impact of individual and situational characteristics (i.e. involvement, perceived availability, perceived certainty, PCE, values, social norms) on consumers' attitudes and intentions towards sustainable products.

The findings yield public policy and marketing recommendations for stimulating sustainable food consumption among the young who can reasonably be assumed to constitute the main market of sustainable food products in the future. Individual characteristics like involvement with sustainability, certainty with respect to sustainability claims and perceived consumer effectiveness have a significant positive impact on attitude towards buying the products, which in turn correlates strongly with intention to buy. Low perceived availability of sustainable products explains why for some consumers intentions to buy remain low, although attitudes might be positive. For other consumers, experiencing social pressure from peers (social norm) explains intentions to buy, despite rather negative attitudes. Linking values as specified in the value theory of Schwartz (1992) with intention to buy sustainable products shows that universalism and power significantly differed between respondents with low and high attitudes, while this was not the case for benevolence, hedonism and achievement. Most importantly, this study shows that more sustainable and ethical food consumption can be stimulated through raising involvement, PCE, certainty, social norms and perceived availability. Some of these key determinants, namely involvement, perceived availability, and perceived consumer effectiveness, have been successfully influenced through communication efforts in this study.

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Table 1. Reliability Statistics (Cronbach alpha value)

Construct	Alpha	Construct	Alpha
<i>Decision-making or individual / situational characteristics</i>		<i>Values</i>	
Involvement towards sustainability	0.65	Universalism	0.86
Attitude towards buying	0.80	Benevolence	0.79
Intentions to buy	0.92	Hedonism	0.78
Perceived Availability	0.80	Achievement	0.79
Perceived Certainty	0.85	Power	0.73
Perceived Consumer Effectiveness	0.72	Stimulation	0.78
Social norms	0.61	Tradition	0.64

Table 2. Size and demographic of consumer segments

ATTITUDE TOWARDS BUYING			
		Low	High
I N T E N T I O N T O B U Y	Low	n = 169	n = 43
		49.7% women	58.1% women
		33.9% urban	34.9% urban
		17.8% low knowledge	18.6% low knowledge
		12.8% high knowledge	2.3% high knowledge
	High	n = 80	n = 164
		67.5% women	71.8% women
		36.3% urban	38.3% urban
		17.9% low knowledge	18.4% low knowledge
		6.4% high knowledge	12.0% high knowledge

Table 3. Involvement, availability, certainty, PCE and social norms of different segments

		ATTITUDE TOWARDS BUYING			
		Dependent Variables	Low	High	Total
I N T E N T I O N  T O  B U Y	Low	Involvement <sup>a</sup>	4.64	4.88	4.68
		Availability <sup>a</sup>	3.24	3.31	3.26
		Certainty <sup>b</sup>	2.09	3.43	3.01
		PCE <sup>a</sup>	4.19	4.42	4.24
		Social norms <sup>a</sup>	3.60	3.95	3.67
	High	Involvement	4.72	5.04	4.94
		Availability	3.83	3.88	3.82
		Certainty	3.64	4.04	3.91
		PCE	4.51	4.74	4.64
		Social Norms	4.13	4.27	4.23
Total	Involvement	4.66	5.00	4.82	
	Availability	3.54	3.61	3.51	
	Certainty	3.14	3.92	3.41	
	PCE	4.29	4.67	4.47	
	Social norms	3.77	4.21	3.97	

<sup>a</sup> 7-point scale

<sup>b</sup> 6-point scale

*Individual and situational determinants*

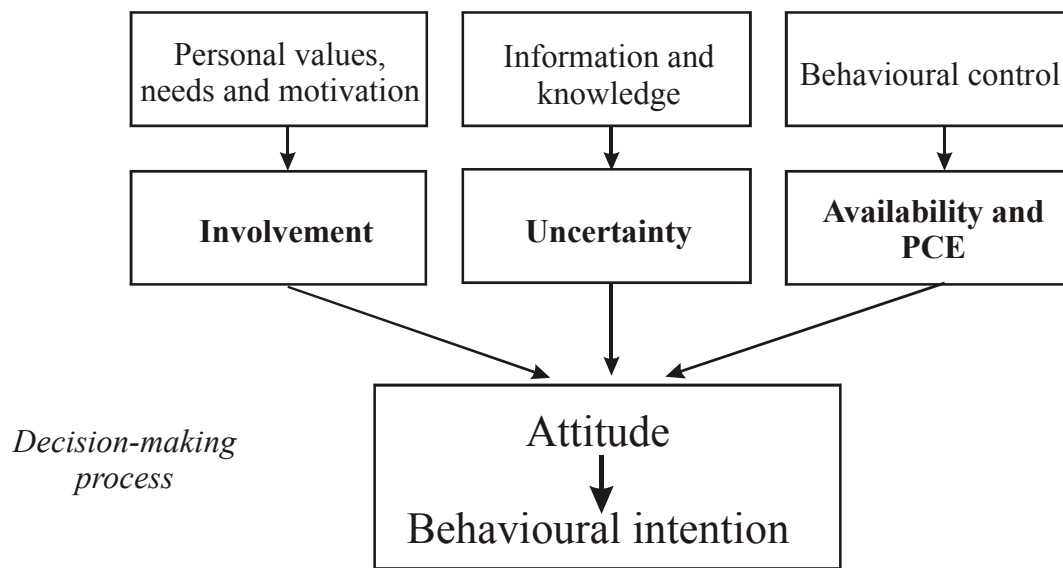


Figure 1.

Conceptual framework to investigate consumer behaviour towards sustainable food products

Adapted consumer behaviour model of Jager (2000)

Notes:

PCE = Perceived Consumer Effectiveness; Bold face indicates manipulated constructs in the research design





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