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# Willingness to pay for fair trade coffee

*The impact of conformity on ethical consumption*

*A Conjoint Analysis*

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## **Abstract**

In this study the willingness to pay and conformity-seeking behaviour of Swedish consumers when purchasing fair trade coffee were examined. It was conducted through a conjoint analysis on data collected from two different questionnaires; one that presented objective information on fair trade, and one that linked fair trade to aspirational cues. The results indicated that ethical claims of fair trade elicit additional utility that increases consumers' willingness to pay for fair trade coffee. The findings also suggested that conformity-seeking behaviour related to self-image seem to be one of the buying motives behind purchase of fair trade coffee.

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# 1. Introduction

In our society, we define our identity by the products we buy, and preferences are shaped by how we see ourselves. Every purchasing decision is based on a choice that derives from our personal taste that forces us to make trade-offs between different attributes to find the product that best fit our identity. In that sense, buying is a way to express social status, values and goals related to self-image (i.e. how we see ourselves) and social-image (how other see us) (Dittmar, Long & Bond, 2007). Many consumers are sensitive to ethical issues and possess high moral values which can hence be considered a part of their self-image. In recent years demand of ethical products has grown into a large trend, not just among consumers but also in terms of business strategy. The increasing approach for sustainability has created the fair trade movement, which works on achieving a more sustainable production environment in low wage countries by offering producers more favourable trading conditions. The system implies that prices of fair trade products lie above world-market prices, and that producers in addition get paid a premium to invest in their families and businesses. Coffee is the world's second largest exchange good and one of the most important trade goods for developing countries (Fairtrade Sverige, 2012), thus making it essential to the fair trade movement.

Sweden is one of the largest countries in terms of coffee consumption with a second place on the world consumption chart (Jordbruksverket, 2012). It is also placed on the frontier of many ethical issues; it is one of the most equal countries in the world, and a leader in act of environmental issues and foreign aid (Fairtrade Sverige, 2010). Yet, only one in ten cups of coffee sold in Sweden is labelled fair trade (Fairtrade Sverige, 2015), which calls for a more detailed investigation of the WTP for fair trade coffee in Sweden. Since purchasing fair trade implies paying a premium for the sake of benefiting the producer, it can in that sense be considered an altruistic act that contributes to the consumer's utility (Reinstein & Song, 2012). Thus, there must be an additional component as a part of the consumer's utility that is not related to selfish motives and that can explain the motives for purchasing fair trade. The future success of fair trade on the Swedish market depends on how much consumers value fair trade products. For that reason, exploring the motives behind fair trade consumption is an interesting approach that can be useful in terms of policy implications of fair trade and ethical consumption.

## **1.2 Objective of the study and research questions**

In this study we sought to investigate the size of the premium consumers are willing to pay for fair trade coffee in Sweden.

The research questions we wanted to answer in this study are:

- 1) What are consumers' WTP for fair trade coffee in Sweden?
- 2) Does conformity-seeking behaviour affect consumers' WTP for fair trade coffee?

These questions were tested by conducting a conjoint analysis with data collected from an online questionnaire presented to respondents in two different versions. In one version of the questionnaire, an additional section was inserted which consisted of a description of characteristics of consumers purchasing fair trade. The characteristics were linked to aspirational cues that could lead the respondent to conform and mediate his/her answer in favour of fair trade. The analysis of the research questions will be supported by the discussion of theories and previous research findings on the mechanisms behind fair trade consumption.

## **1.3 Disposition**

The paper is divided into six sections. After the introduction, section two consists of an overview of fair trade and its praxis. Section three presents a literature review of the findings within the field of ethical consumption; mainly focusing on studies that investigate fair trade coffee as well as consumer attitudes and behaviour. In section four the methodological approach is presented. Section five provides the results of econometric analysis and a discussion of the main findings. In section six the conclusions of the study are presented, as well as limitations of the method and suggestions for further research.

## 1.4 Terminology

The following subsection describes the terminology used in the study.

*Benchmark version* - the basic version of the questionnaire (i.e. with no statement about the characteristics of fair trade consumers.) A complete version of the online survey can be found in Appendix B, attachment B.1.

*Social version* - the questionnaire containing with the added incentive. A complete version of the online survey can be found in Appendix B, attachment B.2.

*Ethical consumption* - the purchasing of a good that is chosen freely by the consumer in support of an ethical issue

*Ethical products* - products that support an ethical cause, such as Fairtrade, KRAV and Utz or local produce

*Factor* or *Attribute* - independent variable chosen to represent a specific attribute related to coffee, such as *roast* or *bean quality*

*Fair trade* - refers to fair trade in general, both as a label and practice

*Fairtrade* - refers to the attribute tested in the conjoint analysis

*Level* - the division of attribute/factor into subcategories, such as *organic* and *non-organic*

*Part-worth utility* - the estimated utility associated with each attribute and its level

*Self-image* - the mental picture individuals have of themselves in terms of values and goals

*Social desirability bias* - a tendency for participants to lean towards the socially acceptable answer when confronted with a question about their attitude

*WTP* - willingness to pay, i.e. a measure of how much value a consumer on a product measured in monetary amount

## 2. Fair trade

In this section fair trade is described more thoroughly, including the scope of the issue, its aim, and the its operational requirements and guidelines.

Coffee producers are the first link of the value chain, and the majority face harsh economical and socioeconomic conditions. To make matters worse commodities are exposed to severe price pressures fluctuating world prices. The price of coffee has in some cases even fallen below the production price, hence forcing farmers into deeper levels of poverty (Fairtrade Sverige, 2012). Fair trade labels are thus a way to ensure a better life for farmers and sustainable production, as it seeks to deliver noticeable benefits for marginalized producers by charging a premium for fair trade products. From a business perspective fair trade labels can also be seen as a way to differentiate products that include ethical components in their bundle of characteristics, which sets them apart from mainstream products.

The term fair trade has become popular by alternative trading (ATOs) and non-governmental organisations (NGOs). In order to protect farmers in developing countries and make sure that prices for commodities are fair and above the free market price, the purchase of fair trade coffee from the farmers is done through co-operatives rather than competitive trading principles. ATOs regulate this by having a set of requirements that producers must meet regarding health, safety, provision of the minimum wage, banning of child work, bonded, forced or prison labour; and also giving workers the right to organize (Bird and Hughes, 1997). However, the concerns for fair trade goes beyond the producers and workers; the ethical scope also includes concerns for natural resources management and producers are encouraged to produce in an environmentally sustainable way. Consumer needs are also incorporated into the fair trade scope and a large emphasis has been on providing information about trade relations so that consumers are able to make informed decisions (Bird and Hughes, 1997).

### **3. Literature review**

This section introduces the theories and findings of previous research that lay the foundation of the analysis. First, assumptions within neoclassical theory will be presented, followed by theories in behavioural economics that can further explain the motives for ethical consumption and also function as support for the hypotheses. The main focus of this section is represented by a discussion of findings of previous research within the field, including a description of the characteristics of the typical fair trade consumer. In section 3.5 the hypotheses of the study will be presented.

#### **3.1 Neoclassical theory**

The neoclassical model makes assumptions that explain the allocation of resources in an economic society, and explains individual economic decisions as actions based on individual preferences within a particular budget constraint. The first assumption is that these preferences are rational, meaning that three criteria are taken into account: *transitivity*, *completeness*, and *reflexivity* (Wilkinson & Klaes, 2012). The second assumption is that consumers use these criteria to maximize individual utility. The third assumption is that consumers possess full information and can hence make optimal purchase decisions (Seyfang, 2009).

The neoclassical model has created the economical human ideal; referred to as *homo economicus*, and the model is useful when analysing utility of products that are of high self-interest and seek to maximize individual utility. However, since fair trade implies that the consumer pays a premium to benefit a third party, neoclassical assumption does not fully explain the demand for fair trade products. To explain this, another set of economic theories needs to be incorporated into the analysis.

#### **3.2 Behavioural economics**

Theories within the area of behavioural economics are used to explain limitations in consumer rationality. Behavioural economics derive from the assumption that consumers base their decisions on the context of their belief systems, the society they live in as well as situational factors, and that the decision-making process is often more complex than what neoclassical theories claim. The area of behavioural economics evolves around theories that attempt to explain the psychological mechanisms behind consumer behaviour. In this subsection a larger



focus will be on the ones that are most fundamental and relevant within the context of ethical consumption.

### **3.2.1 Consumer altruism**

In the introduction of his first book, Adam Smith (1759) states:

*“How selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it.”*

The ethical concerns that some people have today imply that there is a motive for making economic decisions that align with personal values of altruism. Altruism derives from empathy and is the motive for acting in a way that benefits others instead of oneself, without expecting anything in return. A study conducted by Littrell and Dickson (1999) found that consumers who often purchase ethical products had values that were more altruistic than those of the average consumer. The fact that some consumers are willing to pay more for ethical products indicates that there is an added altruistic component of the consumer's utility that is not directly related to rational and self-interested goals (Reinstein & Song, 2012). To simplify this concept it can be argued that consumer utility is divided into two parts, one that refers to the functional utility of the product, such as taste and quality, and one that is supplementary and relates to the “symbolic” benefits of purchasing the product, such as fair trade (Raynolds, Murray & Heller, 2007). Hence, altruistic values of the consumer can be explained by motive for purchasing fair trade, yet the supplementary value might also increase due to enhancements of self and social image (Benabou & Tirolé, 2006). In order to explain the economic decisions by participants of the study, it is relevant to consider altruistic values of participants since it may mediate their WTP for fair trade.

### **3.2.2 Self- & social image**

Ethical consumption can be related to image concerns of consumers and could be a major influential factor on their WTP for ethical products. Compared to altruism, self-image is concerned with the identity of the consumer that can direct behaviour towards some moral standard, e.g. pro-social values of society. Observing others act in a certain manner is a way of forming a moral standard, derived either from law or some social norm that motivates others to conform (Benabou & Tirolé, 2006). For example, if the majority of consumers

would purchase ethical products others have a tendency to follow, which can explain the emergence of a consumer trend. Actions of consumers can either enhance or degrade self-image and are motivated by psychological benefits and costs; feelings of pride and self-satisfaction from “good” actions and feelings of guilt from “bad” actions (Benabou & Tirolé, 2006). Recent studies have revealed that people have a tendency to change their economic behaviour in a way that is beneficial to others when they see others do the same, even in circumstances where their decisions are not observable by others; which yields support for the influence of self-image on conformity (Ariely, Bracha & Meier, 2009). In the context of fair trade consumption, consumer motives can derive from intrinsic values that enhance self-image as well as expectations about other consumers’ behaviour. A study by Cueva & Dessi (2012) related to charity and giving revealed that making self-image concerns more salient can largely increase the amount of individual donations. These concerns can be closely linked to the purchase of fair trade products, since fair trade consumption implies giving a donation to the farmer. In their study Griskevicius *et al.* (2007) showed that participants who had been primed with status-enhancing images and motives related to ethical consumption had a higher tendency to purchase ethical products. Furthermore, consumers may want to conform to show that their behaviour is aligned with pro-social values of society, both to enhance self-image as well as social image. Social image instead focuses on consumers’ desires to appear in a certain way that resonates with the perception of others, and is relevant to examine when people are able to observe the actions of the consumer. The majority of empirical studies concerning social image argues that consumers may choose options that are more expensive to project a social image of high socioeconomic status and prestige (Bénabou & Tirole, 2010). These findings can be used to explain fair trade consumption as a means to enhance both self- and social image.

### **3.2.3 Bounded rationality**

A well-known concept that contradicts the assumptions of neoclassical theory is *bounded rationality*, as it explains why individuals during certain circumstances do not make fully rational decisions. The limitation of rationality is often preventing consumers to act opportunistically and make optimal purchase decisions. First of all, the theory of bounded rationality recognizes that the general consumer has both limited cognitive ability and time, and is hence not capable of collecting and processing all the information required to make the most self-satisficing economic decision. Rather than searching for the relevant information, decision-making becomes a procedure in which information overload of different alternatives

creates a distortion in the decision-making process (Weyland, 2007). From a second aspect consumers can be bounded by not having enough information about different alternatives, hence creating an asymmetric information problem (Koths & Holl, 2012). Even though the consumer is aware of his own payoff from purchasing an ethical product, he might not be aware of the value the ethical cause receives from his purchase. Furthermore, the average consumer knows little about fair trade, including what benefits it represents to developing countries and its aim (Rotaris & Danielis, 2011). One must also take into account the *control beliefs* of consumers; the extent to which they think that their contribution can make a difference for the cause (De Pelsmacker, Janssens, & Mielants, 2005b). Insufficient information may also cause a lack of trust in labels of ethical produce and transparency issues, and the extent to which firms can solve the asymmetric information problem by putting an ethically produced label on their products depends on the credibility of these labels.

### **3.3 Ethical consumption & fair trade**

This subsection provides a broad view of ethical consumption. A major focus will be on the findings of ethical and fair trade consumption to identify the characteristics of the typical fair trade consumer, both in terms of demographics and values. At the end of this section, studies of both WTP for fair trade coffee and conformity will be presented, which can function as a comparative tool for this study. A summary of a selection of these studies is presented in Table 1.

#### **3.3.1 Ethical consumption**

Doane (2001) derives the motivations behind ethical consumption to ethical concerns of consumers; such as human rights, animal well-being, labour condition and the environment. Some forms of ethical consumption may benefit people, while other have the intention of benefiting animals or the environment. From a second dimension, the purpose of ethical consumption can be to promote a cause close to home (such as a local and green produce), or in a faraway part of the world (such as farmers in low-wage countries and deforestation). In terms of action, consumers can demonstrate ethical consumption by boycotting products for their negative attributes or purchasing products for their positive attributes. Past research indicates that negative information has a stronger tendency to influence consumers' attitudes of products than positive information (Herr, Kardes & Kim, 1991). Hence, one might expect that negative information to a higher extent influences the consumer's decision to boycott a product, while positive information not necessarily might lead to the consumer purchasing the

product. However, conflicting research suggests that boycotting a product is unlikely if the consumer highly relies on it. Creyer and Ross (1997) showed in their study that a firm's overall ethical behaviour and reputation is directly linked to consumers WTP, which showed that participants were still willing to buy products from unethical firms on the condition that the price was lower. Thus, there are many aspects that consumers may consider whilst engaging in ethical consumption; both ethically-related and not. These assumptions may help gain an overall understanding of ethical consumption behaviour. To further examine the motives behind fair trade consumption, a more profound view of ethical consumption is necessary.

### **3.3.2 The ethical consumer**

To distinguish the ethical consumer previous research has attempted to divide the samples in terms of demographics and values. Whether or not gender has an impact on ethical consumption is a question that causes disagreement among researchers; some suggest that females have a higher tendency to purchase fair trade (Yang, Hu, Mupandawana, & Liu, 2012), while others state that gender does not influence ethical buying behaviour (Carrigan & Attalla, 2001; Sikula & Costa, 1994). High education is on the contrary a reoccurring finding associated with fair trade consumption (Cranfield, Henson, Northey & Masakure, 2010; Loureiro & Lotade, 2005). Also, Anderson and Cunningham (1972) found that socially conscious consumers tend to be pre-middle aged with a relatively high socioeconomic status. However, some research suggests that demographics tend to explain very little in terms of ethical purchase decisions, and that it is more effective to look at the general concerns and values consumers have related to ethical issues as they tend to shift more seldom (Roberts, 1996). Values could be defined as the abstract principles that are necessary for an individual's self-concept; they can act as guidelines when assessing situations and determine an individual's ideological and social position (Rokeach, 1979; Smith, 1982). As such, they are enduring beliefs that decide whether an action is considered good or bad. Thus, they represent the basis of an individual's personality that guides behaviour. Anderson and Cunningham (1972) found that consumers who purchase ethical products possess joint values such as dogmatism, conservatism, cosmopolitanism and status consciousness. However, Carrigan and Attalla (2001) claim that in order for consumers to base their purchasing decisions on values, more information and comparisons between companies are required to allow consumers to make informed decisions. When consumers possess deep knowledge of issues within the industry they are more inclined to support socially responsible businesses (Dickson, 2000).

De Pelsmacker, and Janssens (2007) found that information and knowledge about fair trade is the link between consumers' attitudes and buying behaviour. In addition to the asymmetric information problem, consumers also tend to be selectively ethical and choose categories that are important to them when purchasing ethical products (Carrigan & Attalla, 2001). This indicates that the ethical issues consumers consider important is highly individual and the products they purchase reflect the ethical issue that is important to them personally.

### **3.3.3 Fair trade coffee consumer groups**

The fact that different groups within society are prepared to pay a higher premium for ethical goods suggests that there are certain characteristics of consumers that can make them more inclined to purchase fair trade. Research findings point towards different characteristics that ethical consumers have in common, but a recurring phenomenon is the presence of a segment that is willing to pay more. The following studies have all investigated ethical consumption by looking at fair trade coffee. De Pelsmacker, Driesen and Rayp (2005a) divide the consumers who purchase fair trade coffee into four segments, in which one of these segments showed a much higher WTP than the rest of the sample. This group claimed fair trade to be the most important attribute when purchasing coffee. The common traits for these so called "fairtrade-lovers" were; an age span of 31-44, more idealistic and less conventional values, and a high education. Bird and Hughes (1997) has taken an alternative approach by segmenting consumers into three different groups based on their ethical shopping habits, and concluded that the "ethical consumer" group was mainly driven by ethical stance and moral values and willing to trade of other attributes for the good intrinsic feeling of purchasing ethical products. The "semi ethical consumer" saw fair trade as a bonus, but not as main priority, and quality and brand was considered to be more important. The third group, referred to as the "selfish consumer", was primarily motivated by egoistic and conventional factors such as quality and price and suspicious of ethical claims. In accordance with Bird and Hughes, Cranfield *et al.* (2010) also found three groups; one labelled "fair trade focused" who received a high utility from fair trade and was less price-sensitive. Arnot, Boxall and Cash (2006) concluded in their study that fair trade coffee has a lower price-elasticity than conventional coffee. These studies indicate that ethical attributes are important to consumers, and they also point towards a particular consumer group that is unresponsive to price changes and always purchases fair trade. This implies that purchase decisions of these consumers might be driven by something other than price that is related to altruistic and ethical values.

The common findings of these studies suggest that there are groups within society with different pre-inclinations of purchasing fair trade.

### **3.3.4 Willingness to pay for fair trade coffee**

The frequency of fair trade purchases has shown to matter since these consumers tend to have a higher WTP for fair trade (Cicia, Corduas, Del Giudice & Piccolo, 2010). Some studies focusing on WTP have considered consumers within a single country. A study conducted in Belgium found that fair trade is the second most important attribute when purchasing coffee; the average WTP for fair trade coffee was 10% higher than for non-fair trade coffee (0,19 euro), but varied within the sample from 36 % to less than 5 % (De Pelsmacker *et al.* 2005a). In China consumers were willing to pay 22% more for fair trade than conventional coffee. An additional finding was that consumers tended to purchase fair trade products for home use rather than at coffee shops. This could be due to consumers' ability to exercise a greater control over the quality of coffee brewed at home (Yang *et al.* 2012).

A study on Italian consumers found that the WTP for fair trade on average was 2,20 euro. They also found that habit seemed to matter since habit-driven consumers tended to purchase less fair trade coffee (Rotaris & Danielis, 2011). Galarraga and Markandya (2004) used another approach and investigated WTP by looking at actual real market data as opposed of using questionnaires, in which they found that the presence of a "green label" increased the price on average with 11.26 % in the United Kingdom.

A study of Swedish consumers showed that a 1 % increase in the share of fair trade coffee increased the WTP by 0,102 SEK (Carlsson, García & Löfgren, 2010). However, research also suggests that the actual price premium for fair trade coffee is higher than consumers are willing to pay (De Pelsmacker *et al.* 2005a; Didier & Sirieix, 2008). Thus, the conclusion emerges that there are consumers who claim that they *want* to purchase fair trade but are not willing to pay the premium. This is also supported by Carrigan and Attalla (2001) who argue that ethical shopping only occurs when there is no additional cost to the consumer in the form of lesser quality, a price premium or time.

### **3.3.5 Conformity and willingness to pay**

Previous studies have found that the tendency to conform alters consumers' WTP for fair trade products (Shaw, Shiu, & Clarke, 2000; Varul, 2010). Teyssir, Etile and Combris (2015) conducted a study on fair trade chocolate, and showed that self-image concerns are important when consumers purchase fair trade since the WTP for fair trade increased when the

expectations of others WTP increased. Another study examining fair trade coffee on the Swedish market found that conformity played a limited role on fair trade purchases (Carlsson *et al.* 2010).

### 3.4 Attitude-behaviour gap

With regard to research that suggests that there is a premium WTP and positive consumer attitudes towards fair trade consumption, one might expect that fair trade would be a larger phenomenon. However, the fair trade market is relatively small; in Sweden fair trade coffee only constitutes 10 % of the market share (Fairtrade Sverige, 2016). A reason for this might be the high premium for fair trade which causes an attitude-behaviour gap. Research conducted on ethical subjects shows that there is a lack of correspondence between the attitudes of consumers and their actual behaviour (Roberts, 1996). There is also a tendency for consumers to lean towards the socially acceptable answer when confronted with a question about their attitude. This contamination of the results due to the social-desirability response bias is more likely to occur either when the topics are sensitive, or the answers are non-anonymous (King & Bruner, 2000). In this study, the attitude-behaviour gap must be taken into account when analysing respondents' stated WTP and not treat their answers as direct interpretations of their behaviour, but rather as estimations.

**Table 1.**

*Overview of results of previous studies on willingness to pay and fair trade (all studies were conducted on coffee unless stated otherwise).*

<b>Study</b>	<b>Model/test</b>	<b>Data</b>	<b>Country</b>	<b>Selected Results</b>
De Pelsmacker <i>et al.</i> (2005a)	Conjoint analysis	Survey	Belgium	Average price premium consumers were willing to pay for fair-trade was 10 % more than non-fair trade, but varied from 36 % to 5 % within the sample.
Yang <i>et al.</i> (2012)	Interval regression	Survey	China	Consumers were on average willing to pay 22% more for fair trade coffee. Females and home brewers tended to have higher WTP.
Rotaris & Danielis (2011)	Conjoint analysis	Survey	Italy	The willingness to pay for fair trade among Italian consumers was found to be 2,20 euros

Galarraga & Markandya (2004)	(QBDS) / (AIDS)	Collected from supermarkets	UK	Presence of a “green label” increased the price on average with 11.26%.
Loureiro & Lotade, (2005)	Weibull distribution	Face-to-face survey	US	Fair trade coffee carried the highest willingness to pay premium compared to shade-grown and organic coffee. The fair trade premium was estimated to 21,64 cents/lb above the original price.
Cicia <i>et al.</i> (2010)	CUB-model	Survey	Italy	Frequency of fair trade coffee purchases matters in regard to their willingness to pay. Frequent buyers of fair trade coffee tend to have a higher willingness to pay than occasional buyers.
Cranfield <i>et al.</i> (2010)	Conjoint analysis	Face-to-face interviews	Canada	Three groups prepared to pay different premiums for fair trade were found.
Arnot <i>et al.</i> (2006)	Conditional logit model	Survey, Market setting	Canada	Fair trade coffee is less price sensitive than conventional coffee. One segment that purchased fair trade coffee tended to be unresponsive to price changes
Teyssier <i>et al.</i> (2015)	Wilcoxon	Laboratory	France	Social- and self-image matters. Consumers may alter their behaviour due to social- or self-image concerns (study was conducted on fair trade chocolate).
Carlsson <i>et al.</i> (2010)	Choice experiment, Logit models	Survey	Sweden	1 % increase in the share of fair trade coffee increased the willingness to pay by 0,102 SEK. Conformity plays a limited and indirect role in fair trade purchase.

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### **3.5 Empirical hypothesis**

Previous research indicates that consumers are both prepared to pay a premium for fair trade and are affected by conformity. In this study we seek to expand on these findings by approaching the issue from another angle that can reduce the social-desirability response bias. The purpose of this thesis is thus twofold; first, to investigate if there is a premium WTP for fair trade coffee in Sweden; and second, to distinguish if conformity plays a role for the WTP in a Swedish setting.

The purposes have emanated into the following hypotheses:

H1: The WTP for fair trade is associated with a positive premium.

H2: Conformity-seeking behaviour will increase the willingness to pay when fair trade consumption is linked to attributes that elicits a positive self-image.

## **4. Methodology & data**

The following section presents the methodological approach chosen for this study, and includes description of data, analytical tools, and experimental design. The thesis used a similar approach as the one adopted by De Pelsmacker *et al.* (2005a) in their study of Belgian consumers.

### **4.1 Outline of the survey**

To examine the impact of conformity two different questionnaires were used; a benchmark and a social version. Both had the same outline except for a small difference in the beginning of the social version (See appendix B for the full version of both questionnaires). Both included the following introduction:

*“Coffee consumption in Sweden is considered the second highest in the world, and is deeply rooted within Swedish culture with the average citizen drinking four cups of coffee each day, under any circumstance and at any time of the day”.*

In the social version an additional description of fair trade consumers was presented:

*“Today consumption trends are changing where purchasing coffee consisting of a fair trade label is becoming an important criteria to consumers. Fair trade consumption has primarily been linked to consumers possessing higher education and socioeconomic status and whose values are more idealistic and less conventional”.*

The information in the benchmark version was presented in an objective fashion, with no intent of inducing any particular behaviour upon the respondent. In the social version participants were presented with positive characteristics of fair trade consumers that they might choose to identify with. As reinforcement, the different versions displayed different pictures as reported in the appendix B; linking fair trade to positive cues in the social version, and neutral cues in the benchmark version. By keeping participants' responses anonymous, the possibility of them being motivated by social-image concerns decreases.

The introduction was followed by questionnaires with the same structure in both versions. In the first part respondents were asked about their WTP for eight different product profiles, each containing a combination of attributes (the attributes and the selection of profiles will be discussed further in section 4.4).

Before respondents were faced with the different profiles, they were presented with a benchmark profile priced 35 SEK (the price was derived as an average price of coffee on Wednesday April 20<sup>th</sup> 2016, at Ica Tuna in Lund, Sweden). The respondents were then asked to indicate the price (1-100 SEK) they would be willing to pay for each coffee profile. This format is considered to give more valuable data than the respondent only stating whether he/she would be willing to pay *more* or *less* than the benchmark price, since it does not just reveal if the respondent is willing to pay more for fair trade, but how much more. The first part was then completed.

The second part of the questionnaire collected background information on the respondents such as age, gender, origin of birth etc. Questions of participants' habits regarding coffee drinking and ethical purchasing were also included, as well as their ethical concerns and knowledge of fair trade. These responses were stated by using a five-point Likert scale, where 1 indicates the lowest/least preferred option and 5 the highest/most preferred. This scale has shown to be effective in similar studies (Cranfield *et al.* 2010). Dividing of the questionnaire into two parts was done to minimize the risk of the respondent seeing through the demand characteristics and alter his/her answer to fit the purpose of the study.

## **4.2 The data**

The questionnaires received a total of 114 respondents; 61 in the benchmark version and 58 in the social version. In the benchmark version 53 responses were complete and could be used, and in the social version 50. The questionnaires were distributed via the Internet, mainly on social media sites such as Facebook, which has shown to be a cost-effective and quick way to reach participants since it allows for sharing and response rates are generally high (Orme & King, 1998). To further enhance the incentives to participate in the study, participants were given the chance to receive packages of coffee.

To limit the scope of the study only participants living/born in Sweden were considered. This resulted in a sample solely based on Swedish consumers with different demographics, with the aim to distinguish if there is a particular purchasing pattern in Sweden.

## **4.3 Composition of sample**

The study concentrated on obtaining a relatively wide geographical reach, although the majority of respondents were located in Lund, Gothenburg, Örebro and Stockholm. In terms of demographic variables, the two different samples were relatively equal in their distributions, whereas the majority of both samples were women (70 %). The sample also showed an overrepresentation of younger participants (aged 20-25) possessing a higher education (Bachelor degree), which could be due to the fact that the questionnaires might appeal to the collegiality between students. According to statistics, only 27% of the Swedish population have pursued further studies involving three years or more after high school, which is less than in our sample (SCB, 2014). The two samples showed the biggest difference in the level of income, with more participants earning a higher income in the social version. The distribution of occupation was essentially equal between both versions, where the majority were students or employed. An overview of the complete composition of the sample is displayed in Table 2.

**Table 2.**  
*Demographics*

<b>Characteristics</b>	N = 53 <b>Benchmark version</b>	N= 50 <b>Social version</b>
<b>Gender</b>		
Male	16	15
Female	38	34
<b>Educational level</b>		
Elementary	0	0
High School	11	11
Bachelor	31	27
Master or higher	11	11
<b>Monthly Income</b>		
Less than 10000	18	10
10000-20000	11	8
20000-30000	14	6
30000-40000	7	8
More than 40000	3	15
<b>Occupation</b>		
Student	17	12
Employed	29	29
Retired	1	1
Unemployed	1	1
Other	4	8
<b>Age</b>		
20-25	24	17
26-35	9	2
36-45	6	9
46-65	14	21
65+	0	1

#### 4.4 Conjoint analysis

Participants' answers were analysed by conducting a conjoint analysis, which is a multivariate technique developed to understand how respondents develop preferences for an object. The basic assumption is that consumers estimate the utility of an object by combining the different utilities associated with the different attributes of the object. The attributes, also known as *factors*, form the basis for the purchase decision for the product. The factors are then divided into subcategories, also known as *levels*. One *level* of each *factor* is then combined into a profile that represents a product with certain characteristics. The respondent's task is to value the different profiles after their individual preferences (Hair *et al.* 2010). To avoid the social-desirability response bias associated with attitude surveys a conjoint analysis is effective and has proven to give more reliable results and exposes the subject to a shop-like environment (De Pelsmacker *et al.* 2005a). It is also considered to be an efficient method to measure how

consumer value different attributes since it includes a real-life consumer dilemma; the consumer has to make a trade-off between the different levels of attributes, which is the same principle used by a conjoint analysis. The trade-offs made by the participants are used to compute the part-worth utility for each level and factor as well as the average relative importance. These measurements can be used to assess the relative impact the attributes have on the purchase decision and their estimated utility (Hair *et al.* 2010). Further discussion on these measurements and how they were computed is enclosed in section 4.5. The conjoint analysis was conducted using the statistical program SPSS.

#### **4.4.1 Experimental design**

The attributes were chosen based on two criteria that have shown to be important when conducting a conjoint analysis; they were both communicable and actionable; meaning that they could be realistically described and defined (Hair *et al.* 2010). They were also to a large extent based on previous research within the field where similar attributes were used (Cranfield *et al.* 2010; De Pelsmacker *et al.* 2005a). The attribute and levels were then altered somewhat to better suit the Swedish market. To include more attributes, such as package design, size and convenience would risk creating an attribute additivity problem and cause the participants to be overwhelmed by the large number of attributes to trade-off between (McCullough, 2002). The same principle applies for the number of levels; the inclusion of levels must be balanced between the factors in order to avoid the “number of levels effect”, in which the factor with most levels receives the largest focus and other factors are undervalued (Hair *et al.* 2010).

#### 4.4.2 Description of attributes and levels

The chosen attributes and levels for each attribute were presented to participants in the first part of the questionnaire with the following descriptions:

**Table 3.**  
*Summary of attributes and levels and how they were described in the survey*

<b>Attributes and levels</b>	<b>Descriptions</b>
<b>Brand</b>	
<i>Gevalia</i>	The biggest coffee brand in Sweden
<i>Other brand</i>	Any other brand of your choice
<b>Roast</b>	
<i>Medium roast</i>	Lower caffeine and lighter taste
<i>Dark roast</i>	Medium caffeine and medium taste
<i>Espresso</i>	High caffeine and more intense taste
<b>Fairtrade</b>	
<i>Fairtrade</i>	Coffee bearing this label means that traders have agreed to pay a fair price to the marginalized coffee farmers who are organized in cooperatives around the world, particularly developing countries in Asia, Africa, Latin America, and the Caribbean
<i>Non-fairtrade</i>	Produced the normal way
<b>Organic</b>	
<i>Organic</i>	Coffee produced without the aid of artificial chemical substances, such as certain additives or some pesticides and herbicides
<i>Non-organic</i>	Coffee produced the conventional way
<b>Bean quality</b>	
<i>100% Arabica</i>	A coffee is considered of high quality when the blending is 100% pure Arabica beans
<i>Arabica/Robusta</i>	A blend between Arabica and Robusta beans that is considered to be of lower quality

If the profiles were to include combinations of all attribute levels in a full factorial design it would result in  $(2 \times 3 \times 2 \times 2 \times 2)$  48 different profiles that needed to be considered. To simplify the study and reduce the demand placed on the respondent a fractional factorial design was used. A fractional factorial design systematically selects a number of profiles out of the total set that represents the total in an effective way and combines them in an orthogonal array. The orthogonal array allows for the caption of the main effects for each attribute and its levels but is a much simpler design since the number of profiles the respondent needs to consider become far fewer (Hair *et al.* 2010). Table 4 displays the eight profiles that are the result of the fractional factorial design and used in the study, and the benchmark profile priced 35 SEK.

**Table 4.***The eight profiles from the fractional factorial design and the benchmark profile*

<b>Price</b>	<b>Brand</b>	<b>Roast</b>	<b>Fairtrade</b>	<b>Organic</b>	<b>Bean quality</b>
<i>Benchmark</i>					
35 SEK	<i>Gevalia</i>	<i>Medium roast</i>	<i>Non-fairtrade</i>	<i>Non-Organic</i>	<i>Arabica/Robusta</i>
<i>The eight profiles</i>					
	<i>Gevalia</i>	<i>Medium roast</i>	<i>Fairtrade</i>	<i>Organic</i>	<i>100% Arabica</i>
	<i>Other brand</i>	<i>Medium roast</i>	<i>Non-fairtrade</i>	<i>Non-Organic</i>	<i>Arabica/Robusta</i>
	<i>Other brand</i>	<i>Medium roast</i>	<i>Non-fairtrade</i>	<i>Organic</i>	<i>100% Arabica</i>
	<i>Gevalia</i>	<i>Espresso</i>	<i>Non-fairtrade</i>	<i>Non-Organic</i>	<i>100% Arabica</i>
	<i>Gevalia</i>	<i>Dark roast</i>	<i>Non-fairtrade</i>	<i>Organic</i>	<i>Arabica/Robusta</i>
	<i>Other brand</i>	<i>Dark roast</i>	<i>Fairtrade</i>	<i>Non-Organic</i>	<i>100% Arabica</i>
	<i>Gevalia</i>	<i>Medium roast</i>	<i>Fairtrade</i>	<i>Non-Organic</i>	<i>Arabica/Robusta</i>
	<i>Other brand</i>	<i>Espresso</i>	<i>Fairtrade</i>	<i>Organic</i>	<i>Arabica/Robusta</i>

## 4.5 Explanation of measurements

The following subsection explains the measurements used in the conjoint analysis and how they were computed.

### 4.5.1 Part-worth utility

The part worth utility is an estimation of the preference or the utility associated with each attribute level. With the part-worth utility it is possible to compute the total utility ( $y$ ) since it is the sum of all partial utilities. The larger the part-worth utility range for each attribute, the more important is the attribute for predicting preference. The conjoint analysis is based on the following model:

$$Y_j = \beta_{j1} + \beta_{j2}\text{Brand}_i + \beta_{j3}\text{Roast}_i + \beta_{j4}\text{Fairtrade}_i + \beta_{j5}\text{Organic}_i + \beta_{j6}\text{Bean}_i + \mu_j$$

where  $Y_j$  is the total utility for profile  $j$ , the  $\beta_{jk}$  are estimated part-worth utilities for each attribute level (where  $\beta_{j1}$  is a constant), and  $\mu_j$  is an error term assumed to be independently and identically distributed. An important point is that the average part-worth utilities are computed separately for each respondent. Thus, the results from each respondent do not affect the outcome of other respondents. This approach does not allow for correlation between respondents and group differences, which is an advantage compared to traditional approaches such as using regression models (Hair *et al.* 2010).

#### **4.5.2 Average relative importance**

The average relative importance for a specific attribute is based on the part-worth utilities and is computed by calculating the range of the attribute (the difference between the highest and the lowest part-worth utility) and divides it with the total sum of the range between all attributes. The importance score is thus expressed in percentages and sum up to 100 (Hair *et al.* 2010).

#### **4.5.3 Willingness to pay**

In the study the average WTP for *fairtrade* is calculated by taking the difference between the average WTP for *fairtrade* alternatives and *non-fairtrade* alternatives, and using a 1-100 scale allows for answers in absolute SEK amounts. However, one must consider that the calculated WTP is merely an estimated value; the real cannot be measured by a conjoint analysis since participants do not actually purchase the product (Didier & Sirieix, 2008).

#### **4.6 Statistical tests**

Wilcoxon tests and t-test were considered most suitable for the data. The tests were all conducted by using the software STATA. The purpose of these test was to examine if the treatment inserted in the social version was effective and created a significant difference in the WTP for *fairtrade* between the two versions, and also to see if *fairtrade* was significantly valued higher than *non-fairtrade*. That is, the tests investigated the following points:

1. If there was a significant difference between the average WTP for *fairtrade* and *non-fairtrade* profiles for the total sample (both versions).
2. If there was a significant difference between the average WTP for *fairtrade* and *non-fairtrade* profile in the benchmark version.
3. If there was a significant difference between the average WTP for *fairtrade* and *non-fairtrade* in the social version.
4. If there was a significant difference in WTP for *fairtrade* between the benchmark and the social version.
5. If there was a significant difference in WTP for *non-fairtrade* between the benchmark and the social version.

##### **4.6.1 T-test**

A t-test was useful since it provides an overview of the means that can be used to compare *fairtrade* vs *non-fairtrade*. A t-test is a statistical hypothesis test conducted to determine if the



means of two sets of data are significantly different from one another. In this study a paired t-test is conducted on point 1, 2 and 3 in section 4.6, and a two-sample t-test on point 4 and 5.

The paired t-test is used on matched (dependent) data, and can be more effective than unmatched data since it has a lower variation of the paired observations (Rice, 2006). The formula for paired t-test is:

$$t = \frac{\bar{d}\sqrt{n}}{s_p}$$

Where  $\bar{d}$  is the mean of  $x_i - y_i$  (*fairtrade - non-fairtrade*) and  $s_p$  is the standard deviation. The sample is distributed as student's t, with  $n - 1$  degrees of freedom (StataCorp, 2013).

The two-sampled t-test is used on point 4 and 5 in section 4.6, and seeks to distinguish differences between the samples in both versions. The data is no longer dependent and a paired t-test is thus not valid. The formula for a two-sampled t-test of two independent samples is:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{s_p^2}{n_1} + \frac{s_p^2}{n_2}}}$$

where  $s_p^2$  is the estimated variance,

$$s_p^2 = \frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}$$

$\bar{x}_1$  is the average of sample 1 and  $\bar{x}_2$  the average of sample 2,  $n_1$  is the size of sample 1 and  $n_2$  is the size of sample 2 and the degree of freedom is  $n_1 + n_2 - 2$ . If the test shows to be significant, the null hypothesis can be rejected (Körner, 2000).

#### 4.6.2 Wilcoxon signed-rank test

The Wilcoxon signed-rank test is a nonparametric version of the paired t-test that is conducted on the same points as the paired t-test, i.e. point 1, 2 and 3. Compared to a t-test, a Wilcoxon test does not require that the two samples are normally distributed. It is also less affected by outliers than the t-test and particularly good for small sample sizes (Rice, 2006).

Since both sample sizes are larger than 10 we can use a Normal approximation. The following formula is used:

$$z = \frac{T_+ - E(T_+)}{\sqrt{Var_{adj}(T_+)}}$$

where  $T_+$  is the sum of positive signed ranks,

$$E(T_+) = \frac{n(n+1)}{4} \quad \text{and} \quad Var_{adj}(T_+) = \frac{1}{4} \sum_{j=1}^n r_j^2$$

$n$  is the total sample size and  $r_j = \text{sign}(d_j) \text{rank}(|d_j|)$ , where  $|d_j|$  is the absolute values of the difference between the matched pair  $j$ . The null hypothesis of a signed-rank test is that distributions of the two samples are the same ( $d_j$  is symmetric about 0), i.e. that there is no difference in participants' average WTP for *fairtrade* vs *non-fairtrade*. If the observed z-value is larger than the critical z-value, the null hypothesis can be rejected (StataCorp, 2013).

#### 4.6.3 Wilcoxon rank-sum test (Mann-Whitney U test)

The Wilcoxon rank-sum test is used to test the null hypothesis that a pair of random independent variables, i.e. unmatched data, come from a population that follows the same distribution, i.e. it is based on the order of observations (StataCorp, 2013). It is conducted to detect any differences in distribution between the benchmark and the social version, and to test point 4 and 5 in section 4.6. Again, the sample size allows for a Normal approximation. The test-statistic  $z$  is calculated by using the following formula:

$$z = \frac{T - E(T)}{\sqrt{Var(T)}}$$

where  $T$  is the sum of all ranks in the total sample,

$$E(T) = \frac{n_1(n+1)}{2} \quad \text{and} \quad Var(T) = \frac{n_1 n_2 s^2}{n}$$

$n_1$  and  $n_2$  is the size of sample 1 and 2 respectively, and  $n$  is the size of the total sample, and  $s^2$  is the standard deviation the combined ranks for both samples.

If the absolute z-value is larger than the critical z-value, the null hypothesis of equal distributions between the two samples can be rejected (StataCorp, 2013).

## 5. Results and discussion

This section contains the results from the empirical analysis and a discussion that relates back to the findings of previous studies. The results from the conjoint analysis are presented in section 5.1, followed by the results of the computed WTP. Section 5.3 contains an analysis of the WTP for *fairtrade* and *non-fairtrade* based on the statistical tests. The results have to be interpreted with caution, and the goal is to detect trends and tendencies within the sample that could give indications with respect to the hypotheses.

### 5.1 Conjoint analysis

In Table 5 the results from the conjoint analysis are displayed. The part-worth utility for each level is presented first, followed by the average relative importance for each attribute. The Kendall Rank and The Pearson correlations are measurements of the correlations between the estimated and the observed preferences that indicate the fit of the analysis. The higher these values, the more appropriate are the model for predicting preferences. The Pearson correlation is likely more appropriate for the analysis since preferences have been measured on a 0-100 scale (Hair *et al.* 2010). The Pearson R values for the benchmark (0,998) and the social version (0,994) are both significant at a 1% level, which shows that the goodness-of-fit measure for the analysis is high. Kendall's tau also indicates a good fit for both the benchmark (1,000) and the social version (0,857), and are both significant at a 1% level. These results point towards evidence that is in line with similar conjoint analyses and previous research (Cranfield *et al.* 2010; De Pelsmacker *et al.* 2005a).

**Table 5.***Average part-worth utilities and average relative importance for the attributes*

Attributes	Average Part-worth Utilities	
	Benchmark version	Social version
<b>Brand</b>		
<i>Gevalia</i>	-0,306	0,415
<i>Other brand</i>	0,306	-0,415
<b>Roast</b>		
<i>Medium roast</i>	-0,291	-0,640
<i>Dark roast</i>	0,052	-0,960
<i>Espresso</i>	0,239	1,600
<b>Fairtrade</b>		
<i>Fairtrade</i>	2,277	2,375
<i>Non-fairtrade</i>	-2,277	-2,375
<b>Organic</b>		
<i>Organic</i>	2,248	2,425
<i>Non-organic</i>	-2,248	-2,425
<b>Bean quality</b>		
<i>100% Arabica</i>	1,272	0,725
<i>Arabica/Robusta</i>	-1,272	-0,725
<b>Constant</b>	36,712	40,840
<b>Fit</b>		
Pearsons R	0,998 (0,000)	0,994 (0,000)
Kendall's tau	1,000 (0,000)	0,857 (0,001)

  

Attributes	Average Relative Importance	
	Benchmark version	Social version
Brand	4,811	5,748
Roast	4,157	17,729
Fair trade	35,758	32,895
Organic	35,296	33,587
Bean quality	19,977	10,042

**5.1.2 Average part-worth utility**

The average part-worth utilities in Table 5 show the relationship between different levels of each attribute. The sum of the part-worth utilities for each attribute is zero. The higher (or lower) value for one particular level, the stronger (or weaker) the average preference and WTP for that level, i.e. a negative value indicates that the attribute level has been unappreciated the majority of times. Also, the larger the range between the highest and lowest values for a particular attribute, the bigger are preferences for different levels of that attribute. The results in Table 5 indicate that there are differences in part-worth utilities between the benchmark and the social version. *Gevalia* vs. *other brand* showed opposite results in the two versions, where *Gevalia* was preferred to a larger extent in the social version. In terms of *roast*, participants showed a highest preference for *Espresso* in both versions, while *dark*

*roast* received opposite results. Considering *bean quality*, *100% Arabica* received a higher part-worth utility in both versions, with the highest score in the benchmark version (1,272). The average part-worth utility for *organic* was nearly as high as *fairtrade* in the benchmark version (2,248), and higher than *fairtrade* in the social version (2,425). One explanation for the greater increase of *organic* than *fairtrade* in the social version is that participants within that sample might have higher ethical concerns for issues related to organic products as opposed to fair trade. This is in line with the findings of Carrigan and Attalla (2001); consumers tend to be selectively ethical and promote ethical issues that are important to them. The benchmark version indicated a strong preference for *fairtrade* (2,277), which received an even higher part-worth utility in the social version (2,375). Since the preferences increased when participants were exposed to socially desirable cues associated with fair trade, it yields support for the second hypothesis of the study; conformity-seeking behaviour will increase the WTP when fair trade consumption is linked to attributes that can elicit a positive self-image. The results also suggest that fair trade is one of the attributes associated with the highest preference. Since a higher preference indicates a higher WTP, the results also support the first hypothesis. This can be compared with the study done by De Pelsmacker *et al.* (2005a), who found *fairtrade* to be the second most important attribute.

### 5.1.3 Average relative importance

The part-worth utilities were used to compute the average total utility for each profile. The results in Table 5 indicate that *fairtrade* and *organic* had the highest impact on overall preferences in both studies. In other words, the difference in preferences was large between coffee profiles that contained either or both *organic* and *fairtrade* and those that contained neither of the two. Nevertheless, the distinction between the two samples is not obvious; the average relative importance for *fairtrade* in the benchmark version (35,758) is larger than in the social version (32,895). As an initial response, it might contradict the second hypothesis concerning conformity. However, considering that average relative importance is measured in percentages rather indicates that other factors in the social version have become more important as well. *Brand* and *roast* for example, were more important in the social version, while the opposite is true for *bean quality*.

The results also indicates that *brand* plays the least important role when determining preferences for coffee. This does not mean that brand as such was of little importance to the participants, and might rather be explained by the low preference for the chosen brand *Gevalia*. The high preference for both *organic* and *fairtrade* indicates that ethical values

were important to the participants and supports the theories claiming that there are psychological benefits related to self-image of making a “good” choice (Benabou & Tirolé, 2006). Again, the high average relative importance of *fairtrade* implies that it is one of the most important attributes consumers consider when purchasing coffee, which supports the first hypothesis since a high average relative importance indicates a higher WTP.

#### 5.1.4 Average willingness to pay

As explained in section 3, participants were asked to indicate their preferences for the eight coffee profiles by providing their WTP for each product. Since the orthogonal design of the conjoint analysis is representative for all possible profiles the participants’ average WTP for *fairtrade* can be calculated as the difference between the average WTP for alternatives containing *fairtrade* and alternatives that do not (De Pelsmacker *et al.* 2005a). The difference between the two versions is displayed in Table 6.

**Table 6.**  
*Willingness to pay in absolute amounts and percentages for fairtrade*

<i>Fairtrade</i>	Average Willingness to Pay	
	<b>Benchmark version</b>	<b>Social version</b>
Absolute amounts	4,38 SEK	4,75 SEK
Percentages	12,40 %	12.74 %

The outcome shows that the average WTP for *fairtrade* was slightly higher in the social version (0,37 SEK), which implies that the WTP increased when respondents were exposed to positive attributes associated with fair trade. A study of the Swedish coffee market shows that the fairtrade label raises the price with 8,5 SEK (Dick, 2014), which is a larger premium than what the findings of the WTP in this study suggests. This might also explain the low 10 % market share for fair trade coffee in Sweden (Fairtrade Sverige, 2016); the average Swedish consumer is not willing to pay the fair trade premium. The gap between actual prices and the WTP of the average consumer is also consistent with the results from other studies investigating WTP for fair trade coffee (De Pelsmacker *et al.* 2005a; Didier & Sirieix, 2008). As discussed in section 3, the extra premium participants are willing to pay derives from a supplementary utility related to altruism or self- and social image (Benabou & Tirolé, 2006). An issue with the supplementary value of fair trade is that consumers may be unable to assess

the experienced utility of it as they do with functional attributes, and in the case of fair trade consumers can never be entirely sure that the premium they pay actually is used to the producer's advantage (Raynolds *et al.* 2007). This might also explain why some are not willing to pay the whole premium.

Yet, other studies have shown that there is a group within the total sample prepared to pay a larger premium than the rest for fair trade (Arnot *et al.* 2006; Bird & Hughes, 1997; Cranfield *et al.* 2010; De Pelsmacker *et al.* 2005a). This group may represent the consumers that actually purchase fair trade coffee. Since the WTP in this study is a calculated average, one might assume that there are similar participants within the sample who are prepared to pay the fair trade premium.

To make the comparison with other studies easier, the average WTP was calculated in percentages (by dividing the extra average WTP for *fairtrade* with the average WTP for *non-fairtrade* profiles), which show that the average WTP was 12,40% in the benchmark version and 12.74 % in the social version. These rates are lower than the estimated price premium Chinese consumers were willing to pay (22 %), yet higher than the average WTP in the study of Belgian consumers (10 %) (De Pelsmacker *et al.* 2005a; Yang *et al.* 2012), hence indicating that the WTP of Swedish consumers is close to the one estimated for Belgian consumers.

## **5.2 Main findings of conjoint analysis**

So far, the conjoint analysis has attained results that point towards support for both hypotheses. Firstly, it implies that there was a premium WTP for fair trade. Secondly, it indicates that preferences for *fairtrade* increased when participants were exposed to the added incentive in the social version. However, the average relative importance of *fairtrade* has also decreased in the social version and other attributes have instead become more important. This could be due to a number of factors such as different preferences between the samples. Demographics and values have previously been proven to matter in terms of fair trade consumption (Anderson & Cunningham (1972); Cranfield *et al.* 2010; Loureiro & Lotade, 2005; Yang *et al.* 2012), and might explain the small changes in preferences between the versions. However, in order to attain more solid results and investigate further if the difference between what participants were willing to pay for *fairtrade* between the samples could be recognized as significant, a set of t-tests and Wilcoxon tests were conducted. To perform these test, the average WTP for *fairtrade* profiles (i.e. profile 1, 6, 7 and 8) and *non-*

*fairtrade* profiles (i.e. profile 2, 3, 4 and 5) was generated for each participant. The average values for both versions are presented in Table 7. The summary statistics for the data used when conducting these test can be found in Table A.1 in the appendix A.

### 5.3 T-test

Table 7 displays the results from the t-tests, all performed at a 1 % significance level. The paired t-test investigates the mean difference between the WTP for *fairtrade* vs. *non-fairtrade*, and the two-sample t-test determines if the means for the WTP for *fairtrade* and *non-fairtrade* differed between the benchmark and social version. Firstly, the test showed a significant mean difference between *fairtrade* and *non-fairtrade* within the total sample. Considering the results of the benchmark and social version separately, they both displayed the mean difference in WTP between *fairtrade* and *non-fairtrade* as significant, meaning that participants in both versions were on average willing to pay more for *fairtrade* profiles. The last two t-tests show a significant difference in the average WTP for both *non-fairtrade* and *fairtrade* profiles respectively when comparing the benchmark and social version, meaning that the average WTP for both *fairtrade* and *non-fairtrade* increased in the social version.

**Table 7.**  
*Paired t-test, comparing the mean difference of fairtrade - non-fairtrade*

	N	Mean	SD	t	P (diff > 0)
<b>Total Sample</b>					
<i>Non-fairtrade</i>	103	36.289	7.275	8.835	(0.0000)
<i>Fairtrade</i>	103	40.850	8.828		
<b>Social version</b>					
<i>Non-fairtrade</i>	50	38.305	7.143	5.966	(0.0000)
<i>Fairtrade</i>	50	43.055	9.187		
<b>Benchmark</b>					
<i>Non-fairtrade</i>	53	34.387	6.939	6.524	(0.0000)
<i>Fairtrade</i>	53	38.769	8.016		
<i>Two-sample t-test, comparing the social- and benchmark version</i>					
<b><i>Non-fairtrade</i></b>					
Social	50	38.305	7.143	2.824	(0.0029)
Benchmark	53	34.387	6.939		
<b><i>Fairtrade</i></b>					
Social	50	43.055	8.016	2.527	(0.0065)
Benchmark	53	38.864	9.187		



## 5.4 Wilcoxon test

To examine these findings more extensively a Wilcoxon signed-rank and rank-sum test were conducted. The results from both tests are displayed in Table 8.

**Table 8.**

*Wilcoxon test, comparing the mean difference of fairtrade - non-fairtrade*

<b>Signed rank</b>	<b>Type of rank</b>	<b>N</b>	<b>Sum rank</b>	<b>z</b>	<b>P &gt; z</b>
Total sample	Positive	83	4911	7.411	0.0000
	Negative	12	409		
	Zero	8	36		
	Total	103	5356		
Social version	Positive	42	1175	5.223	0.0000
	Negative	5	94		
	Zero	3	6		
	Total	50	1275		
Benchmark	Positive	41	1300	5.247	0.0000
	Negative	7	116		
	Zero	5	15		
	Total	53	1431		
<b>Rank sum</b>	<b>Version</b>	<b>N</b>	<b>Rank sum</b>	<b>z</b>	<b>P &gt; z</b>
<i>Average non-fairtrade</i>	Benchmark	53	2330.5	2.812	0.0049
	Social	50	3025.5		
<i>Average fairtrade</i>	Benchmark	53	2407.5	2.302	0.0214
	Social	50	2948.5		

## 5.5 Main findings of statistical tests

The outcome of the statistical tests suggests that there is a significant difference between the samples. Similarly to the t-test, the Wilcoxon test demonstrated a difference in average WTP for *fairtrade*; the sign-rank test showed a significant difference for all three tests, and the results are in line with the first hypothesis.

The rank-sum test also attained the same result as the two-sampled t-test, and showed a significant difference in average WTP for both *non-fairtrade* and *fairtrade* between the two versions. Thus, it concludes that participants on average were willing to pay more for *fairtrade* in the social version, and the second hypothesis of the study can hence be supported. These outcomes are also congruent with the results from the study of conformity and WTP on the Swedish market by Carlsson *et al.* (2010). The average WTP in this study was slightly

lower, yet it implies that the tendency to conform affects the WTP for fair trade. This supports the assumption that conformity matters for ethical consumption, and that there is a utility and price premium related to ethical attributes such as fair trade. The price premium is likely to derive from the additional altruistic utility associated with fair trade purchase (Reinstein & Song, 2012).

A significant point is that ethical consumption is driven by separate motives; one that derives from altruistic values related to empathy and care for others, and one that refers to egoistic motives that seeks to enhance the image of oneself. The findings in this study suggest that conformity due to self-image concerns is a part of the utility that reinforces consumer motives for purchasing fair trade. Thus, making self-image more salient will likely direct the consumer towards altruistic actions and increase the perceived value of fair trade, and hence mediate the WTP for products containing the attribute. This outcome is also consistent with the discovery by Cueva and Dessi (2012).

An unexpected outcome of the social version was that the average WTP did not only increase for *fairtrade*, but also for *non-fairtrade* profiles. Since the two samples were independent, this outcome might be explained by differences of the two samples that concern shopping habits and/or demographics, such as a higher level of income in the second sample. This might also partially explain the higher increased WTP for *fairtrade* in the social version. Hence, it would be premature to conclude that the entire effect on *fairtrade* is due to the manipulation of the versions. Furthermore, as it was found in the conjoint analysis, other attributes have also gained importance in the social version, which could also be a possible explanation for the increase in average WTP.

## 6. Conclusion

This study sought to investigate whether ethical claims concerning fair trade have an impact on consumers' WTP when purchasing coffee. By using a conjoint analysis, mimicking a shop-like setting and conducting questionnaires in two versions it sought to decrease the social-desirability bias to get answers as closely to reality as possible. The conjoint analysis showed that *fairtrade* is an attribute that participants valued highly, both in the benchmark and social version. The findings from the conjoint analysis also suggest that there was a premium in participants' WTP associated with the fairtrade label. Furthermore, the t-test and the Wilcoxon tests showed a significant difference in the average WTP for *fairtrade* and *non-fairtrade profiles*. They also revealed that participants were on average willing to pay more for *fairtrade* in the social than in the benchmark version. Since responses in the social version are anonymous, the outcome must primarily be explained by self-image rather than social-image concerns, although effects deriving from social image cannot completely be ruled out. These results suggest that there are motives behind the purchase of fair trade that are driven by how consumers view themselves. These findings can also give implications on how to effectively promote the fair trade movement. The Swedish market has a huge penetration potential for fair trade, especially with respect to coffee since Sweden is one of the highest coffee consuming countries in the world. Thus, there are opportunities for the fair trade movement to further expand on the impact that self-image has on consumer behavior. The conclusions in this study are solely based on the WTP for fair trade coffee, and we cannot argue that the same conclusions are true for fair trade in general. One must consider that fair trade products differ in terms of price elasticity and fair trade premium.

There are also some factors that must be taken into consideration when interpreting the results, in order to not draw any premature conclusions about the Swedish market. Due to the lack of diversity in some areas the sample is not fully representative of the Swedish market. There are also some groups within the sample that are overrepresented which in previous studies have been found to purchase fair trade more often and vice versa. Furthermore, it was difficult to simulate a real-life environment in the study; coffee attributes were solely presented with a description and the participant did not receive the whole picture of the product. Furthermore, the participant did not actually purchase the product, and one must consider the risk of an attitude-behaviour gap; hence the real WTP is not revealed. There is also always a risk with questionnaires that includes a lack of motivation and engagement of participants, causing them to give arbitrary answers that do not match their true attitudes, and

conducting a real-life simulation could have made respondents more committed to the particular task. However, the results of the study indicate that this is an area that calls for further research, and it would be interesting to conduct a similar study with a larger sample that can be more representative of the Swedish market.

An aspect that also should be considered is whether the WTP for fair trade will increase if the fair trade movement becomes even more popular in the future. As has been found in this study, social incentives can be powerful tools in terms of mediating consumers' decisions. Using self-image concerns for this matter is a notion that should be taken into consideration of policy-makers; if managed effectively, it could radically change consumer behaviour towards sustainable consumption and improve the lives of many in the developing world.

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## Appendix

### Appendix A

#### A.1 Table

Summary statistics for the average WTP for the eight profiles as well as for the *fairtrade* and *non-fairtrade* options.

	N	Mean	SD	Min	Max
Profile 1	103	43.728	10.399	5	85
Profile 2	103	32.524	6.922	0	49
Profile 3	103	39.272	9.003	5	75
Profile 4	103	36.039	9.676	0	65
Profile 5	103	37.320	9.486	5	75
Profile 6	103	39.165	9.188	5	65
Profile 7	103	37.388	9.353	5	75
Profile 8	103	43.117	14.516	0	100
Social treatment	103	0.485	0.502	0	1
Average WTP for fairtrade (SEK)	103	40.850	8.828	19.5	78.75

### Appendix B

Appendix B reproduces the survey administered to the participants.

#### B.1 Benchmark version

This survey is conducted for a bachelor thesis at Lund School of Business & Economics. The survey is structured in two parts, in the first one we will ask you to state your willingness to pay for several products. In the second one we will ask you some personal information. All your responses will be treated confidentially and anonymously and solely used for academic purposes.

Your participation in the study is greatly appreciated and will include a chance to receive a free package of coffee.

#### Part 1

##### Instructions

Swedish coffee consumption is considered as the highest in the world and is deeply rooted within Swedish culture with the average citizen drinking four cups of coffee each day, under any circumstance and at any time of the day.

In this part of the study different types of coffee will be presented. Each type differs with respect to one or several attributes. First, you will be presented with a benchmarking price for a certain set of attributes to get an idea on the price range. You will then be presented with an alternative, where your task is to provide how much you would be willing to pay for that particular combination of attributes.

## Attribute description

### Brand

- Gevalia – The biggest coffee brand in Sweden
- “Any other brand” – Any other brand of your choice

### Roast

- Medium roast – lower caffeine and lighter taste
- Dark roast – medium caffeine and medium taste
- Espresso - High caffeine and more intense taste

### Fairtrade

- Fairtrade – “coffee bearing this label means that traders have agreed to pay a fair price to the marginalized coffee farmers who are organized in cooperatives around the world, particularly developing countries in Asia, Africa, Latin America, and the Caribbean”
- Non-fairtrade – Produced the normal way.

### Organic

- Organic – coffee produced without the aid of artificial chemical substances, such as certain additives or some pesticides and herbicides
- Non-organic – coffee produced the conventional way

### Bean Quality

- 100% Arabica - A coffee is considered of high quality when the blending is 100% pure Arabica beans
- Arabica/Robusta – A blend between Arabica and Robusta beans that is considered to be of lower quality



Benchmark					
35 SEK	Gevalia	Medium roast	Non-fairtrade	Non-Organic	Arabica/robusta
Indicate price	Brand	Roast	Fairtrade	Organic	Bean
	Gevalia	Medium roast	Fairtrade	Organic	100% Arabica
	Other brand	Medium roast	Non-fairtrade	Non-Organic	Arabica/Robusta
	Other brand	Medium roast	Non-fairtrade	Organic	100% Arabica
	Gevalia	Espresso	Non-fairtrade	Non-Organic	100% Arabica
	Gevalia	Dark roast	Non-fairtrade	Organic	Arabica/Robusta
	Other brand	Dark roast	Fairtrade	Non-Organic	100% Arabica
	Gevalia	Medium roast	Fairtrade	Non-Organic	Arabica/Robusta
	Other brand	Espresso	Fairtrade	Organic	Arabica/Robusta

**The first part is now completed.**

## Part 2

In this part of the study we will ask you some personal information. Please answer the following questions.

### Demographics

#### Gender

Male  Female

Age \_\_\_\_\_

Country of birth \_\_\_\_\_

City where you live \_\_\_\_\_

#### Educational level

Elementary  High School  Bachelor  Master or higher

#### Monthly income (after taxes)

Less than 10000  10000-20000  20000-30000  30000-40000  more than 40000

#### Occupation

Unemployed  Student  Retired  Employed  other

#### Including yourself, how many coffee drinkers live in your household?

1  2  3  4  5 or more

### Coffee drinking habits

#### Do you drink coffee?

Yes  No

#### If yes, in what type of setting do you drink coffee?

At home  At a coffee shop  At work  At school  At friends' houses  Other

**Including yourself, how many coffee drinkers live in your household?**

1       2       3       4       5 or more

**How many coffee packages (à 500g) do you buy each month?**

None       1-2       3-4       More than 4

**Do you usually shop alone or with other people?**

Alone     Friends     Family members     Flat/dorm mates     Partner     Other

**Do you generally buy the same coffee or do you like to try different types of coffee?**

Same       Different

**On a scale from 1 to 5, how much does discounts influence your purchase of coffee?**

Not at all - 1  2  3  4  5  - Very much

**On a scale from 1 to 5, where 1 indicates very important and 5 indicates not important, which attributes would you consider to be of most importance?**

	1	2	3	4	5
Brand					
Roast					
Fairtrade					
Organic					
Type of bean					

**On a scale from 1 to 5, how much knowledge do you have of fairtrade/organic labels?**

None - 1  2  3  4  5  - Full

**On a scale from 1 to 5, to what degree do you trust fairtrade/organic labels?**

Not at all - 1  2  3  4  5  - Completely

**Do you usually buy ethical products?**

Yes       No

**If yes, could you list the ones that you buy most frequently?**

\_\_\_\_\_

**What type of ethical issues do you consider of most importance?**

Environmental issues     Farmers/workers in low-wage countries     Animal rights

**Thanks you so much for participating!**

**If you want to enter the lottery for a free package of coffee please enter your e-mail address:**

\_\_\_\_\_

## **B.2 Social version**

This survey is conducted for a bachelor thesis at Lund School of Business & Economics. The survey is structured in two parts, in the first one we will ask you to state your willingness to pay for several products. In the second one we will ask you some personal information. All your responses will be treated confidentially and anonymously and solely used for academic purposes.

Your participation in the study is greatly appreciated and will include a chance to receive a free package of coffee.

### **Part 1**

#### **Instructions**

Coffee consumption in Sweden is considered the second highest in the world, and is deeply rooted within Swedish culture with the average citizen drinking four cups of coffee each day, under any circumstance and at any time of the day.

Today consumption trends are changing where purchasing coffee consisting of a fair trade label is becoming an important criterion to consumers. Fair trade consumption has primarily been linked to consumers possessing higher education and socioeconomic status and whose values are more idealistic and less conventional.

In this part of the study different types of coffee will be presented. Each type differs with respect to one or several attributes. First, you will be presented with a benchmarking price for a certain set of attributes to get an idea on the price range. You will then be presented with an alternative, where your task is to provide how much you would be willing to pay for that particular combination of attributes.

#### **Attribute description**

##### **Brand**

- Gevalia – The biggest coffee brand in Sweden
- “Any other brand” – Any other brand of your choice

##### **Roast**

- Medium roast – lower caffeine and lighter taste
- Dark roast – medium caffeine and medium taste
- Espresso - High caffeine and more intense taste

##### **Fairtrade**

- Fairtrade – “coffee bearing this label means that traders have agreed to pay a fair price to the marginalized coffee farmers who are organized in cooperatives around the world, particularly developing countries in Asia, Africa, Latin America, and the Caribbean”
- Non-fairtrade – Produced the normal way.

##### **Organic**

- Organic – coffee produced without the aid of artificial chemical substances, such as certain additives or some pesticides and herbicides
- Non-organic – coffee produced the conventional way

##### **Bean Quality**

- 100% Arabica - A coffee is considered of high quality when the blending is 100% pure Arabica beans
- Arabica/Robusta – A blend between Arabica and Robusta beans that is considered to be of lower quality



Benchmark					
35 SEK	Gevalia	Medium roast	Non-fairtrade	Non-Organic	Arabica/robusta
Indicate price	Brand	Roast	Fairtrade	Organic	Bean
	Gevalia	Medium roast	Fairtrade	Organic	100% Arabica
	Other brand	Medium roast	Non-fairtrade	Non-Organic	Arabica/Robusta
	Other brand	Medium roast	Non-fairtrade	Organic	100% Arabica
	Gevalia	Espresso	Non-fairtrade	Non-Organic	100% Arabica
	Gevalia	Dark roast	Non-fairtrade	Organic	Arabica/Robusta
	Other brand	Dark roast	Fairtrade	Non-Organic	100% Arabica
	Gevalia	Medium roast	Fairtrade	Non-Organic	Arabica/Robusta
	Other brand	Espresso	Fairtrade	Organic	Arabica/Robusta

**The first part is now completed.**

## Part 2

In this part of the study we will ask you some personal information. Please answer the following questions.

### Demographics

#### Gender

Male  Female

Age \_\_\_\_\_

Country of birth \_\_\_\_\_

City where you live \_\_\_\_\_

**Educational level**

Elementary  High School  Bachelor  Master or higher

**Monthly income (after taxes)**

Less than 10000  10000-20000  20000-30000  30000-40000  more than 40000

**Occupation**

Unemployed  Student  Retired  Employed  other

**Including yourself, how many coffee drinkers live in your household?**

1  2  3  4  5 or more

**Coffee drinking habits**

**Do you drink coffee?**

Yes  No

**If yes, in what type of setting do you drink coffee?**

At home  At a coffee shop  At work  At school  At friends' houses  Other

**Including yourself, how many coffee drinkers live in your household?**

1  2  3  4  5 or more

**How many coffee packages (à 500g) do you buy each month?**

None  1-2  3-4  More than 4

**Do you usually shop alone or with other people?**

Alone  Friends  Family members  Flat/dorm mates  Partner  Other

**Do you generally buy the same coffee or do you like to try different types of coffee?**

Same  Different

**On a scale from 1 to 5, how much does discounts influence your purchase of coffee?**

Not at all - 1  2  3  4  5  - Very much

**On a scale from 1 to 5, where 1 indicates very important and 5 indicates not important, which attributes would you consider to be of most importance?**

	1	2	3	4	5
Brand					
Roast					
Fairtrade					
Organic					
Type of bean					

**On a scale from 1 to 5, how much knowledge do you have of fairtrade/organic labels?**

None - 1  2  3  4  5  - Full

**On a scale from 1 to 5, to what degree do you trust fairtrade/organic labels?**

Not at all - 1  2  3  4  5  - Completely

**Do you usually buy ethical products?**

Yes  No

**If yes, could you list the ones that you buy most frequently?**

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**What type of ethical issues do you consider of most importance?**

Environmental issues  Farmers/workers in low-wage countries  Animal rights

**Thanks you so much for participating!**

**If you want to enter the lottery for a free package of coffee please enter your e-mail address:**

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