Do labels capture consumers' actual willingness to pay for Fair Trade characteristics?

Pieter VLAEMINCK and Liesbet VRANKEN

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Abstract

Labeling schemes are used as a mechanism to inform consumers about products with both public and private characteristics. Consumers are increasingly interested in the ethical characteristics of food products and are willing to pay the premium for it. Nevertheless, market shares of ethically produced food products remain low. Not much research has been directed towards the question whether labels completely incorporate the ethical characteristics they stand for and are able to convey these values to consumers. Using two, partially incentive compatible, stated choice experiments in a natural consumer environment and chocolate as study object, we are able to compare consumers' willingness to pay for a Fair Trade label and for the label's underlying characteristics. Results show that dispersion exists between the value of a Fair Trade label and the actual values consumers attach to the underlying characteristics of Fair Trade.

Key Words: Fair Trade, Chocolate, Willingness to pay, Label effectiveness, Attitude behavior gap

JEL classification: C9, D12, Q50.

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1 Introduction

While consumers may be concerned about ethical characteristics of food products, the reality shows that these general concerns are often not translated into actual behavior when it comes to spending their own money (Grunert et al., 2014; Langen, 2011; Vermeir and Verbeke, 2006; Padel and Foster, 2005). For Belgium specifically, a recent survey indicates that Belgian consumers are willing to pay a premium of 10-15% for Fair Trade (FT) chocolate, that 50% of consumers report to have bought FT chocolate in the final year and that 96% of the buyers report to be satisfied by their purchase (BTC, 2012). Nevertheless, the market share of FT chocolate in Belgium is estimated to be less than one percent (Fairtrade International, 2012) demonstrating the existence of some sort of attitude/behaviour gap (Vecchio and Annunziata, 2015; Vermeir and Verbeke, 2008).

Since ethical characteristics, such as FT, are credence attributes, consumers cannot infer the ethical characteristics directly from consuming the product (Poelman et al., 2008). Accordingly, labeling schemes have been used as a mechanism to inform consumers about products with both public and private characteristics. The labels help producers to differentiate their products and help consumers to get reliable information thereby reducing information asymmetries (Rousseau and Vranken, 2013; Schumacher, 2010). In theory, assuming that consumers exhibit the ethical preferences observed in the existing literature, products carrying an ethical label should outcompete, or at least be stronger represented, in current food markets (Lozano et al., 2010). In reality, we see that labels are not that efficient in translating these ethical preferences into ethical consumption behavior (Grunert et al., 2014) .

Previous literature identified several direct purchase barriers towards the consumption of food with ethical characteristics such as the relatively high price premium (Marian et al., 2014; De Pelsmacker et al., 2005), the real or perceived lack of availability (Vermeir and Verbeke, 2006), the lack of information (Vlaeminck et al., 2014), low knowledge (McEachern and McClean, 2002), and lack of trust in the label (Sorqvist et al., 2015; Krystallis et al., 2008). Furthermore, in reality, consumers are faced with a multi-factor decision world and constant trade-offs between price, brand, quantity, use-by-date, nutrition information, sensory quality and healthiness (Grunert et al., 2014). This means that although consumers might have a high level of concern with sustainability issues in general, in the context of concrete food choice, they exhibit lower levels of concern. Next, information overload and the labels' high degree of diversity make it difficult for consumers to use these labels as a reliable standard to differentiate

between ethical and less ethical products (Zander and Hamm, 2010; Schumacher, 2010; Van Amstel et al., 2008). Last, labels may not adequately inform consumers what they are standing for resulting in a welfare loss (Rousu and Corrigan, 2008). Label effectiveness is reduced when a label does not capture the actual preferences of consumers and is thus not able to convey the intended information to consumers to make an informed choice. This may consequently hold back the consumption of ethically produced goods (Rousseau and Vranken, 2013; Vlaeminck et al., 2014).

Our study examines whether preferences people have for a label are different than the preferences they have for the underlying label characteristics. Ideally, the preferences for the underlying label characteristics add up to the total label value (de Boer et al., 2007). However, it could well be that, because of the reasons discussed above, consumers who have strong preferences for sustainability issues such as FT characteristics, exhibit a lower level of concern when they decide what to purchase, typically the moment they are expected to use the FT label (Grunert et al., 2014; Vermeir and Verbeke, 2008).

Using a randomized within-subjects design of two, partially incentive compatible, stated choice experiments (CE) in a natural consumer environment, we are able to compare consumers' willingness to pay for a FT label and for the label's underlying characteristics using chocolate as study object. The difference between the two choice experiments lies in the way FT enters participants' choice sets. In the CE with a FT-label, one of the attributes is a FT label thus forcing participants to take the label explicitly into account in their multi-attribute trade-off. In the CE with FT-characteristics, we do not include the FT label as such but create attributes of the main FT characteristics. This setup allows us to investigate whether the FT label captures consumers' actual willingness-to-pay (WTP) for the FT characteristics.

Much of the previous literature on information and labels indicates that information provisioning can alter the demand for ethically produced food. Tagbata and Sirieix (2008) show that the WTP for FT labels increases when they gave information regarding these labels. Also Loureiro and Lotade (2005) find higher premiums for labeling programs after consumers were previously informed about them. Trudel and Cotte (2009) find that the punishment/discount for unfair practices was nearly twice the impact of positive information. The majority of these studies have in common that they explicitly give information about ethical characteristics during the experiment and consequently measure the difference with the initial WTP. In our study, we do not provide explicit information about FT to participants but measure their preferences for a FT label and for FT characteristics simultaneously. We thus minimize the risk

that we affect consumers' label preferences as well as their preferences for the underlying label characteristics.

Stated preference methods are often criticized because ethical consumption is usually lower in actual markets than what one would expect from survey based studies (Eckhardt et al., 2010). Social desirability bias and hypothetical bias are often put forward as key issues in the overstatement of WTP for FT labels (Levitt and List, 2007; Cummings et al., 1995). Unfortunately, actual market behavior would not allow us to study the difference between the FT label value and its underlying characteristics. Therefore, we rely on a stated preference methods (i.e. a choice experiment), but we made sure to use a full experimental design that limits these possible biases. Firstly, by conducting the choice experiments in a natural consumer environment namely the supermarket, we try to overcome the hypothetical setting that may accentuate changes in peoples' behaviour more easily (Benz and Meier, 2008). Secondly, we impose cheap talk on our complete sample and incentive compatibility on half of our sample to limit the effect of social desirability bias (Norwood and Lusk, 2011).

The next section gives a background on the global chocolate sector and reviews the literature on willingness to pay for FT products. Section three describes our experimental design and our data collection process. Section four covers the results of our choice experiment that studied whether the current labels are effective in incorporating consumers' values towards the FT characteristics. In section five, we conclude and give policy recommendations.

2   Background

2.1   The chocolate industry and corporate social responsibility

The chocolate industry represents a multi-billion euros industry with important corporate social responsibility and sustainability issues (Bradu et al., 2013). The largest share of the main ingredient cocoa is produced in West African countries, accounting for 68% of world production, followed by Asia (18%) and South America (14%) (Max Havelaar, 2012). The majority of cocoa producing countries are characterized by poor infrastructure and a low, or very low, GDP (ICCO, 2007). Most cocoa farmers face a considerable number of constraints: labor problems (including child labor), price volatility, low productivity and shortfalls in both social and environmental sustainability have all been linked to the cocoa production sector in the past (Bradu et al., 2013; Beyer, 2012; Krain et al., 2011). Nevertheless, world cocoa production has risen at an average annual growth rate of 3.3% from 2002 to 2012. Consumption

peaked at a record level in 2010 of around 5.54 million tons and forecasts estimate a growing demand due to rising GDP and population growth (ICCO, 2012).

The cocoa sector lately has been characterized by key sector players publically announcing ambitious targets for supplying certified cocoa, governments creating specific initiatives focusing on sustainable cocoa production, and stakeholders such as NGO's and development organizations taking initiatives with the common objective of fostering the sustainable production of cocoa (KPMG, 2012). Fair Trade (FT) organizations aim to improve the livelihoods of excluded and disadvantaged producers by providing them better trading conditions and aim to increase the demand for FT products by raising awareness and campaigning (EFTA, 2001). For consumers, the FT label should serve as a guarantee that poor farmers receive a fair price. In addition, the label wants to improve environmental sustainability, community investments and working conditions of producers (Loureiro and Lotade, 2005). On the consumer side of the chocolate market, sales of FT chocolate are rising, but actual market shares still represent only a small fraction in the total market (Bradu et al, 2013).

2.2   Willingness to pay for Fair Trade products

Most studies on socially responsible products show that the majority of consumers are increasingly interested in the ethical characteristics of food products and are willing to pay a price premium for products that live up to certain ethical standards. Different valuation methods are used to assess consumers' preferences for FT products ranging from surveys, choice experiments, lab experiments, and field experiments over scanner data (Andorfer & Liebe, 2012). These methods differ on the type of choices they measure, namely hypothetical or non-hypothetical choices, the environment where the choices are made, namely online, in a face-to-face interview, in the lab or in the field, and whether data on actual or stated buying behavior is used.

Based on a literature review study on FT consumption, Andorfer & Liebe (2012) conclude that there is clear empirical evidence of a positive WTP for such products. In a meta-analysis on the WTP for socially responsible products, Tully and Winer (2014) find that the mean percentage premium for socially responsible products (relating to environment, animals and human) is 16.8 percent and that, on average, 60 percent of respondents are willing to pay a positive premium. Besides, they find that the WTP for products where the socially responsible element benefits humans (e.g. labor practices) is greater compared to those that benefit the

environment. For an extensive overview on FT and consumption we refer to Vlaeminck et al. (2015).

So far, relatively few studies have measured the relationship between FT and consumers' WTP for chocolate. Rousu and Corrigan (2008) conducted an auction in a grocery store and find that participants are willing to pay a premium of €0.08/100g for FT chocolate. In addition they found that, by providing reliable information, 14% and 18% of participants switched respectively towards or away from the FT chocolate bar. In another study, Tagbata and Sirieix (2008) use an experimental method with two organic and two FT chocolate products to value the environmental and social dimension. Results show that organic and FT labels increase consumers' WTP with €0.59/100g. In addition they identify three consumer clusters: (1) consumers that are insensitive to the label, (2) consumers that positively value the label (3) and consumers where the label valuation depends on the product's taste. Lastly, Rousseau (2015) uses a choice experiment and finds that respondents are willing to pay a premium of €2.04/100g for chocolate with a FT label.

3   Methodology and data

3.1   Choice experiment theory

We employ a choice experiment which is a non-market valuation technique to estimate the value of the FT labels and their characteristics because it allows to explicitly disentangle the effects of separate product characteristics. A discrete choice experiment is a stated preference elicitation method introduced by Louviere and Hensher (1982) especially suited to deal with multidimensional choices such as purchase decisions related to FT chocolate. A choice experiment is a survey-based or experiment-based[2] method for modelling preferences for goods, where goods are described in terms of attributes and the levels that these take (Hanley et al., 2001). People are presented multiple choice sets with alternatives of a particular good and asked to choose their preferred alternative in order to understand the trade-offs that respondents are willing to make among attributes. Because price is included as one of the attributes of the good, the willingness-to-pay for each attribute can be indirectly recovered from peoples' choices. To allow results to be interpreted in standard welfare economic terms, a baseline alternative or 'no-choice' option is included.

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[2] Choice experiments can be incentive compatible when they are based on binding experiments where participants have to make actual payments if they decide to buy the product under consideration.

The choice model we use in this study is based on random utility theory (e.g. Ben-Akiva and Lerman, 1985) which states that the utility of a respondent i's choice for alternative j (U_{ij}) is comprised of a deterministic, observable component V_{ij} and an error, unobservable component ε_{ij} (Eq. (1)). V_{ij} is usually specified as a linear relationship, additive in utility, where X is a vector of k attributes associated with alternative j – in this case the characteristics of a chocolate bar – and β is the corresponding coefficient vector. Choosing one alternative over the others implies that the utility of the chosen alternative exceeds the utility associated with the other alternatives.

$$U_{ij} = V_{ij} + \varepsilon_{ij} = \beta X_{ij} + \varepsilon_{ij} \qquad (1)$$

Choice experiment data are typically estimated by conditional logit (CL) models which assume that the random component of the utility of the alternatives is independently and identically (Gumbel) distributed (i.i.d.) with a type I extreme value (EV) distribution (McFadden, 1974). Conditional logit models however assume preference homogeneity across respondents and define substation patterns by the independence of irrelevant alternatives restriction (IIA). IIA implies that only one fixed vector of parameters is estimated for the choice attributes, and hence all respondents are assumed to have the same taste for the attributes (e.g. Hensher and Greene, 2003). If these conditions are met, the probability of choosing a particular alternative takes the form of a logistic distribution that enables estimation through maximum likelihood (ML) procedures (e.g. Birol et al., 2006). One can relax the IIA assumption to account for preference heterogeneity by using models such as the random parameters logit model (Train, 2003). The random parameters logit utility function includes a vector of random coefficients of the attributes X_k for individual *i* in the deterministic component (*V*) in Eq. (1) that incorporate individual preference deviations with respect to the mean (Eq. (2)).

$$U_{ij} = \beta_i X_{ij} + \varepsilon_{ij} = \beta X_{ij} + f(\beta) X_{ij} + \varepsilon_{ij} \qquad (2)$$

In this paper, we show the results of the random parameter logit estimations done with Nlogit Version 5.0. Since all random parameters are dummy variables, we assume parameters follow a uniform distribution in the mixed logit model (Hensher et al., 2005). Besides, the price parameter is considered fixed to avoid difficulties in calculating WTP measures (Train, 2003).

3.2 Choice experimental design

Two generic choice experiments were designed to investigate consumers' total WTP for a FT label and their WTP for the underlying characteristics of a FT label using chocolate as the

studied food product. Chocolate was chosen as product for several reasons. First, Belgians consume 6 kg of chocolate on average per person per year making it a well-known and frequently bought product limiting the novelty bias (List & Shogren, 1998). Second, as chocolate bars are available in conventional, FT and bio-FT versions, we are able to make the two choice experiments incentive compatible since existing versions of the choice experimental products can be offered to participants.

In the first choice experiment, each respondent faced three different choice sets, each consisting of two alternative chocolate varieties (A and B) and the option not to buy any chocolate variety. The chocolate varieties were described using four attributes: quality & taste, label presence, origin of cocoa and price (see Table 1 for the different levels for each attribute). Each respondent was asked which chocolate variety they would prefer to buy. As this CE explicitly includes the FT label as an attribute, we will refer to it as the *CE with a FT-label* in the remainder of the paper.

In the second choice experiment, each respondent faced six different choice sets, each consisting of two alternative chocolate varieties (A and B) and the option not to buy any chocolate variety. The chocolate varieties were described using five attributes: environmental impact of cacao production, cacao price received by the producer, level of community investment, farmers' working conditions and chocolate price paid by consumers (see Table 1 for the different levels for each attribute). Each respondent was asked which chocolate variety they prefer. They needed to assume the chocolate was of their preferred quality and taste and the cocoa came from developing countries as to make their choices as similar to the *CE with a FT-label*[3]. As this CE includes FT characteristics as attributes, we will refer to it as the *CE with FT-characteristics* in the remainder of the paper.

Table 1. Attributes and attribute levels in *CE with a FT-label* and *CE with FT-characteristics*

CE with a FT-label		*CE with FT-characteristics*	
Attribute	Attribute levels	Attribute	Attribute levels
Quality & Taste	30% premium cocoa 50% premium cocoa 70% premium cocoa	Environmental standard	No standards EU standards Organic standard
Label presence	No label Fair trade label Bio-Fair trade label	Price paid to producer	Bad Average Fair
Origin of cocoa	Ivory Coast Indonesia	Level of community investment	Non existing Average

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[3] We excluded origin and quality because seven attributes could result in cognitive overload during the choice process and especially considering the length of the full experiment.

	Brazil		High
Price	€2 €3 €4	Working conditions + controls	Unimportant Improved + infrequent controls Improved + frequent controls
		Price	€1.5, € 2, €2.5, €3, €3.5, €4

Considering that the full factorial design of the two choice experiments would include 162 (=3^4 * 2) different chocolate varieties for *CE with a FT-label* and 810 (=3^4 * 5 * 2) for *CE with FT-characteristics*, we limit the number of varieties included in our survey. The choice experiments are designed starting from an orthogonal main effects plan (OMEP) which allows the uncorrelated estimation of all main effects under the assumption that all interactions between attributes are negligible and uses the search algorithm developed by Street et al. (2005) to arrive at an optimal experimental design. For *CE with a FT-label* we thus selected an OMEP including 9 different chocolate varieties and transformed this OMEP to construct 9 different choice sets. For *CE with FT-characteristics*, an OMEP including 18 different chocolate varieties was used to construct 18 different choice sets. Both choice experiments were randomly blocked into 3 blocks in order to limit the cognitive burden for participants. This means that each respondent needed to answer 3 choice sets from the *CE with FT-label* and 6 choice sets from the *CE with FT-characteristics* .

3.3   Experimental procedure and data collection

The choice experiments were conducted face-to-face in the entrance hall of a retailer in January 2013. The target of 144 participants was reached after two weeks. The full experimental design consisted of two choice experiments, a survey, and an incentive compatibility treatment. The full experimental design was completely randomized to ascertain average treatment effects could be estimated with confidence. In all choice experiments a 'cheap talk' script was included as an ex ante mitigation tool for hypothetical bias (Cummings and Taylor, 1999). Cheap talk is included to convince the people to think carefully about whether they really would do what they say and to answer as if this was a real choice with real consequences. The survey contained socio-demographic questions (gender, age, education, household constitution, etc.), questions measuring social and environmental attitudes (volunteering, travelled outside EU, member of environmental NGO, donations to charity, etc.) and questions relating to FT (prejudices, knowledge, trust, frequent buyers, belief, etc.). After people agreed to participate in the experiment, all participants answered the survey. To account for possible priming and order

effects (Carlsson et al., 2012; Day et al., 2012; Chartrand et al., 2008), we installed two randomizations in the design: (1) 50% of participants got the FT questions in the survey before the choice experiments and 50% after answering the choice experiments, and (2) 50% of participants answered the *CE with FT characteristics* first and 50% of participants answered the CE with *FT label first*. Last, to account for hypothetical bias, 50% of participants got €5 to participate in the experiment and were told that they would need to buy one of their chosen chocolate bars after the experiment. The financial reward was only communicated after they agreed to participate in order to limit selection bias and a possible house money effect (Harrison and List, 2004; Clark, 2002). Incentive compatibility was thus imposed on half our sample.

4 Empirical results

4.1 Descriptive statistics

In Table 2 we summarize the main sample characteristics. The average respondent was 42 years old. 38% of respondents were female and 72% of our sample enjoyed education above secondary school level. Therefore, a major share of respondents had a net household income of more than €3000 per month (average net income of a Belgian family in 2013 equaled €2,819). 20% is member of a nature protection organization, 49% did ever volunteer work and 73% donates yearly to charity, giving an indication on the prosocial values in our sample.

Table 2. Descriptive statistics

Number of respondents	144
Socio-economic characteristics	
Average age (years)	42
Female (%)	38
Higher education – bachelor, master, PhD (%)	72
Net income (euro/month) (%)	
0-1000	4
1001-2000	17
2001-3000	14
3001-4000	19
4001plus	22
Not specified	24
Travelled outside EU (%)	76
Member nature protection organization/NGO (%)	20
Ever did volunteer work (%)	49
Donate yearly to charity (%)	73
Fair trade (FT) and consumers	
FT purchasing behavior (%)	
(Almost) never	53

Regularly	42
(Almost) always	5
FT compared to conventional produce (%)	
Taste (worse-same-better)	23-60-17
Price (worse-same-better)	65-30-5
Availability (worse-same-better)	52-47-1
Correct knowledge of FT (%)	27
Belief in FT (%)	
FT is used as a marketing tool and does not contribute	3
FT does not fulfil its promises but remains better than conventional products	27
FT guarantees what it promises, but personally I do not care	21
FT guarantees what it promises, and personally I do care	49

When asked whether they purchase the conventional or FT variant if the latter was available, half of respondents stated they (almost) never purchased the FT option, 42% regularly opted for FT and 5% always purchased FT. In the group of FT buyers, 75% stated they buy only between 1-3 different types of FT products. Looking at peoples' judgment on FT compared to conventional products, we find that on average, consumers think that both products have a similar taste. However, more than half of respondents rated FT products worse on both price and availability. In our sample, only one fourth of respondents could identify the correct definition of FT out of four options. Finally, 70% of respondents believed that FT guarantees what it promises, but only 50% did personally care about the issues addressed. One fourth feels that FT does not fulfil all its promises but they still believed FT to be better than conventional products.

4.2 Choice experimental results

We analyze the choice experiments using a random parameters model including only the main effects to understand the relative preferences consumers attach to the FT label and the underlying FT characteristics[4]. Although our choice experiment is generic, we include an alternative specific constant (ASC) for the status quo alternative, the no-choice option, in order to account for unobserved sources of utility. In this set-up, a negative significant coefficient thus indicates that there is a utility premium for moving away from the status quo i.e. respondents prefers to buy a chocolate bar over not buying one at all. Afterwards, we turn to

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[4] We first estimated conditional logit models for the two choice experiments to determine which variables needed to be random in the random parameter estimations.

the comparison of the WTP values for the FT label and the WTP values for the FT characteristics.

4.2.1 Random parameter results

The results of the *CE with a FT-label* show that consumers attach importance to the ethical aspects linked to cocoa production (Table 3)[5]. Both a FT label and a bio-FT label are preferred above no label being present on the chocolate. A bio-FT label is preferred to chocolate with just a FT label (p=0.008)[6]. In general, people prefer a higher percentage of quality cocoa beans in their chocolate. The coefficient of the '70% quality cocoa' attribute is statistically different from all other coefficients in the model indicating that taste and quality remain major drivers for chocolate purchases. Belgian consumers do not differentiate between the origins of the cacao production. Consumers have homogeneous preferences for the FT and bio-FT labels. This finding contrasts with past literature on ethical labels where significant sample heterogeneity towards these ethical attributes is often found (e.g. Uchida et al., 2014).

In summary, consumers do value a FT label in their decision to buy chocolate but are rather indifferent to the cacao origin. This suggests that consumers uniformly identify a FT label with products coming from developing countries, and they do not discriminate to which parts of the world their FT premium will be transferred. However it is unclear which specific characteristics of FT drive this preference.

Table 3. Baseline random parameter estimation results for *CE with a FT-label* and *CE with FT-characteristics*

		CE with FT-label			CE with FT-characteristics		
		Mean	SD			Mean	SD
Quality & Taste	70% Cocoa	2.243*** (0.460)	3.947*** (1.058)	*Environmental standards*	Organic	0.844*** (0.197)	1.719*** (0.404)
	50% Cocoa	1.139*** (0.248)	1.541** (0.721)		EU	1.139*** (0.199)	1.664*** (0.441)
Label	Bio-FT	1.372*** (0.310)	1.236 (0.771)	*Producer price*	Fair	1.173*** (0.199)	1.301*** (0.464)
	FT	0.907*** (0.294)	0.005 (0.819)		Average	1.115*** (0.205)	1.576*** (0.450)
Origin of cocoa	Brazil	0.233 (0.246)	/	*Community investment*	High	0.750*** (0.184)	1.022** (0.446)
	Indonesia	-0.286 (0.250)	/		Average	0.301 (0.189)	1.547*** (0.435)
				Labor conditions	Freq. controls	1.882*** (0.246)	2.009*** (0.397)
					Infreq. controls	0.784*** (0.177)	0.776 (0.729)

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[5] Since all categorical variables are dummy coded, estimated coefficients should be interpreted and compared to the reference level being a non-labelled chocolate bar consisting of low quality cocoa beans that were grown in Ivory Coast.

[6] All coefficient tests were done using Wald tests.

Price	-0.683*** (0.167)	Price	-0.661*** (0.134)
ASC	-2.270*** (0.473)	ASC	-0.580 (0.416)
N° Obs.	432		864
Log L	-307.5		-689.3

Note: Robust standard errors in parentheses , *** p<0.01, ** p<0.05, * p<0.1 ;

The results of the *CE with FT-characteristics* indicate that all FT characteristics have a significantly positive impact on consumer preferences (Table 3). Heterogeneity is present in the distribution of preferences towards these characteristics. Consumers prefer cocoa that is produced following certain environmental standards such as the EU environmental standard and the organic standard. They dislike an unfair price paid to cocoa producers although they are indifferent between an average and fair remuneration. Consumers prefer a high level of social community investments such as capacity building and schools compared to none or low level of these investments. Last, consumers attach importance to the degree to which labor conditions are improved and to the level that these are controlled. In fact, when looking at the different FT characteristics assessed in this study, consumers attach the highest value to improved labor conditions, but only if these claims are frequently controlled. Hence, for FT organizations to be effective, they should run frequent controls and communicate this clearly.

4.2.2 WTP for FT label versus WTP for FT characteristics

In this section, we explore whether the consumers' mean WTP for the FT label differs from the mean WTP of the labels' underlying characteristics[7]. From the attributes in *CE with FT-characteristics*, we are able to reconstruct consumers' actual WTP for a FT label by bundling the separate FT characteristics into one WTP number[8].

Table 4. Legend for willingness-to-pay for FT characteristics

FT bundles	Environmental standards	Producer price	Community investment	Working conditions
FT high	EU	Fair	High	Frequent controls
FT mid	EU	Average	Average	Infrequent controls
BioFT high	Organic	Fair	High	Frequent controls

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[7] You cannot compare parameters directly between logit models because the numerical values of the parameter weights are confounded with a scale parameter (Swait and Louviere, 1993). Therefore we calculate WTP values for both choice experiments.

[8] Calculations of standard errors, test statistics, significance levels, and confidence intervals were based on the Delta Method.

BioFT mid	Organic	Average	Average	Infrequent controls

Note: FT characteristics high, FT characteristics low, BioFT characteristics high, and BioFT characteristics low

Table 4 displays a legend of the different FT characteristics that were bundled to compare the WTP for the bundle and the WTP for to label to which the bundle corresponds. Since the FT definition is unclear to which extent for example fair labor conditions or community investments are translated in reality, we create different bundles of FT characteristics to make our results more robust. In total, four different FT bundles are created namely *FT characteristics high*, *FT characteristics low*, *BioFT characteristics high*, and *BioFT characteristics low*. *FT characteristics high* is the FT bundle of interest since it yields high benefits for the producers and therefore broadly captures the definition that most FT organizations currently adopt: retribution of a fair price to producers, care for the environment (but organic is not the standard), a high level of community investment and improved working conditions that are frequently controlled. *FT characteristics low* is the FT bundle that generates lower benefits: retribution of an average price to producers, care for the environment, an average level of community investment and improved working conditions that are infrequently controlled. The two BioFT bundles are similar to the FT bundles except that they take organic as the environmental standard.

In general, consumers are willing to pay a positive premium of €1.68/200g (thus €0.84/100g) for a FT label on chocolate (Table 5). Besides, consumers' WTP for the (bio) FT label differs from the WTP for the labels' underlying characteristics[9].

Table 5. Testing for differences in WTP

CE with FT label			CE with FT characteristics			Unequal variance t-test (two-tailed)	
Direct Label	Mean WTP	Mean (SE)	Implicit Label	Mean WTP	Mean (SE)	t	Sig. (p)
FT	1.68	0.47	FT high	7.51	1.56	-3.57	0.0005
			FT mid	5.07	1.13	-2.76	0.0063
Bio FT	2.44	0.58	Bio FT high	6.94	1.45	-2.88	0.0045
			Bio FT mid	4.50	1.02	-1.75	0.0807

Note: Mean WTP values are given in € for 200g of chocolate

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[9] We test whether the WTP of the FT label differs from the WTP of FT characteristics using the Welsh unequal variance t-test. Since we want to compare the central tendency of two populations based on samples of unrelated data and consequently do not assume that both populations have the same standard deviation, the unequal variance t-test is preferred to the Student's t-test or Mann–Whitney U test (Ruxton, 2006).

Table 5 indicates that consumers value the bundle of FT characteristics significantly more than the FT label used on FT chocolate. We find the largest difference between the WTP for the FT label and the WTP for the bundle FT characteristics with high benefits for producers (i.e. the bundle that captures the definition that most FT organizations currently adopt). This finding shows that FT labels are not able to completely incorporate and communicate the ethical characteristics of their products to consumers who value these characteristics. In other words, we find clear evidence that labelled products are not that effective in translating these ethical preferences thereby reducing their behavioural change potential.

4.2.3   Robustness checks

Our choice experimental approach offers an excellent methodology to understand how consumers evaluate FT characteristics in their decision-making process (Moser et al., 2014). Past literature however indicates that stated preferences can differ from real preferences or that a difference can exist between the actual and hypothetical willingness to pay, especially when consumers' ethical attitudes and behaviors are studied (Lusk et al., 2011). In our full experimental design we controlled for a possible priming/ordering effect and hypothetical bias in order to increase the robustness of our WTP estimations.

Respondents needed to make choices in two different choice experiments. Since respondents are often affected by the order of choice tasks they need to make (Carlsson et al., 2012; Day et al., 2012), we randomized the order of the *CE with FT label* and *CE with FT characteristics*. On top of that, it is possible that respondents were primed on ethical consumption through the value questions on FT in the survey before the choice experiments as well as through answering the *CE with FT characteristics* first. This may have unconsciously influenced their preferences and consequent choices (Chartrand et al., 2008). Making consumers aware of FT before they made their choices could increase their WTP in a similar way that information campaigns can stimulate people to showcase a particular behavior (de-Magistris et al., 2013). We tested whether our WTP estimates for the FT label differed depending on the order of the experiments and whether the FT questions in the survey were asked before or after the choice experiment was (Table 6). The WTP of primed consumers did not differ from the non-primed subsample. This may indicate that information campaigns will not have a large effect on FT label purchasing behavior in general.

Table 6. Robustness of WTP estimates for FT label and FT characteristics to priming/ordering and hypothetical bias treatments for 200gr of chocolate (EUR).

WTP for FT label (based on CE with FT label)	
Priming/ordering effect	Hypothetical bias

	Not-primed	Primed	p-Value[a]	IC	NIC	p-Value[a]
FT	1.40** (0.02, 2.78)	1.29*** (0.36, 2.22)	0.897	1.94* (-0.18, 4.06)	1.06** (0.25, 1.88)	0.450
Bio-FT	1.65** (0.34, 2.97)	2.42*** (1.28, 3.57)	0.388	2.71** (0.31, 5.12)	1.73*** (0.91, 2.56)	0.452
WTP for FT characteristics (based on CE with FT characteristics)						
	Priming/ordering effect			Hypothetical bias		
	Not-primed	Primed	p-value[a]	IC	NIC	p-Value[a]
FT char (high)	7.00*** (3.29, 10.70)	7.12*** (2.95, 11.29)	0.872	7.59*** (2.79, 12.39)	7.10*** (3.65 10.56)	0.965
FT char (low)	4.41*** (1.85, 6.97)	5.27*** (1.99, 8.55)	0.692	5.58*** (1.87, 9.29)	4.67*** (2.17, 7.18)	0.685
BioFT char (high)	6.37*** (2.98, 9.75)	6.68*** (2.74, 10.63)	0.873	6.98*** (2.54, 11.42)	6.53*** (3.33, 9.73)	0.905
BioFT char (low)	3.78*** (1.51, 6.05)	4.84*** (1.80, 7.87)	0.674	4.97*** (1.61, 8.33)	4.10*** (1.85, 6.36)	0.586

[a] We test whether there is a difference in WTP for the FT label or fair trade characteristics between the primed and non-primed subsample and between the incentive compatible (IC) and non-incentive compatible (NIC) subsample

***,**,* indicate whether the WTP is significantly different from zero at the 1%, 5%, 10% level

Upper and lower limit of the WTP confidence interval between brackets

To control for hypothetical bias in our estimates we introduced several ex ante mitigation tools (Levitt and List, 2007). First, we conducted the choice experiments in a natural consumer environment namely the supermarket to overcome the hypothetical lab setting that may accentuate changes in peoples' behaviour more easily (Benz and Meier, 2008). Second, we impose a cheap talk script on our complete sample to inform participants that they have the tendency to portray themselves more positively than they behave in reality to limit the effect of social desirability bias (Norwood and Lusk, 2011). Third, following Harrison (2006), we used a non-hypothetical or real choice experiment with an incentive compatible mechanism and a real product to overcome the hypothetical nature and to reveal their true preferences via a treat of a financial transaction. In our study, 50% of the participants received a reward to participate in the study, but they needed to buy one of the chocolate bars that they had chosen during the experiment. Looking at Table 6, consumers' WTPs did not differ between the cheap talk and incentive compatible subsamples[10]. Therefore, the supermarket environment combined with a

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[10] In the appendix, readers can find the full robustness of WTP estimates for every attribute to priming/ordering and hypothetical bias treatments for 200gr of chocolate (EUR).

cheap talk script seems to be economical ways to reduce hypothetical bias to an acceptable level. This finding is in line with Silva et al. (2011) who found that their cheap talk script eliminated the hypothetical bias in a retail setting. However we acknowledge that WTP values in the incentive compatible treatment are consistently higher than the WTP values in the hypothetical treatment, although these differences are insignificant. The upward bias can be a result from a house money effect where the provision of an initial endowment can cause experimental subjects to make unusual choices (Clark, 2002). None of the robustness checks indicate that our estimates of consumers' WTP for a FT label and FT characteristics are significantly affected. We therefore conclude that our estimates are robust for both the label value as the values consumers attach to the FT characteristics.

Figure 1. Consumers' estimated WTP for a (Bio-)FT label and four bundles of FT characteristics (€/100g)
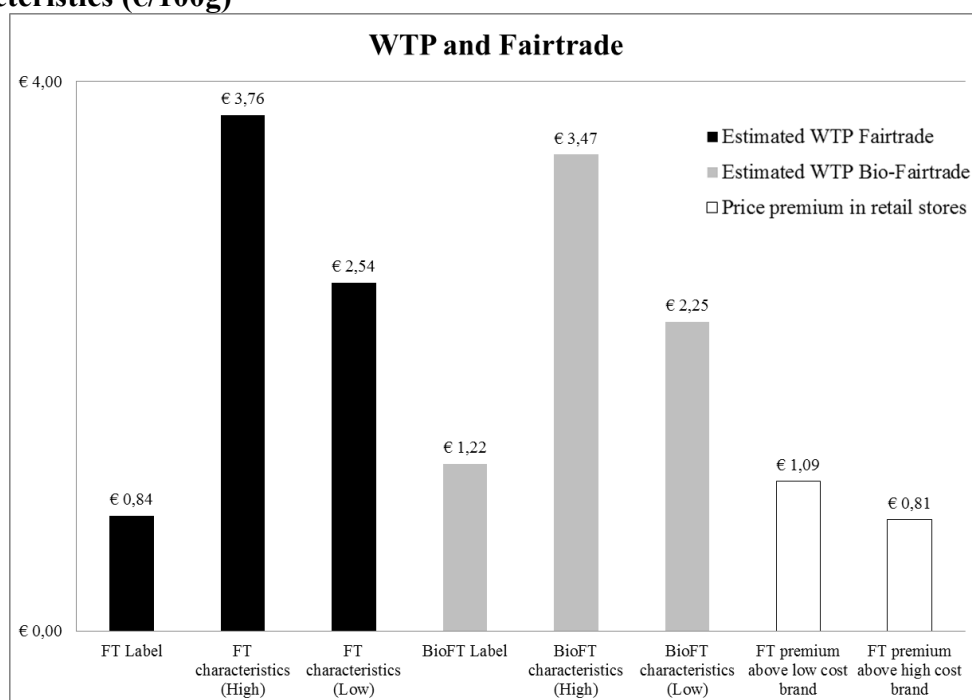
Note: *FT characteristics high, (low)*: retribution of a fair (average) price to producers, care for the environment (but organic is not the standard), a high (average) level of community investment and improved working conditions that are frequently (infrequently) controlled. The two *BioFT* bundles are similar to the FT bundles except that they take organic as the environmental standard. The price premium is calculated as the average price premium for FT chocolate in the 4 biggest retailers in Belgium.

As a final reality check, we compare the estimated WTP for a FT label to the price premium that FT chocolate carries in today's supermarkets (Figure 1). We find that our estimated WTP of €0.84/100g corresponds closely to the price premium that consumers of FT chocolate nowadays pay in the supermarket (€0.81/100g) indicating that supermarkets are quite effective in capturing the consumer surplus. This also suggests that the estimated values for the

underlying FT characteristics are truthfully revealed and that the current labels are ineffective in conveying the underlying FT characteristics to consumers.

5   Conclusion and policy recommendations

There is clear empirical evidence that consumers are concerned about ethical characteristics of food products. However, the reality shows that these general concerns are not always translated into actual behavior when it comes to spending their own money. To investigate how FT organizations and other stakeholders could expand the FT market, we directed our study towards the efficacy of FT labels. Particularly, we study whether the preferences that people have for a label are different than the preferences they have for the underlying label characteristics. We conducted two similar choice experiments in a natural consumer environment in which Flemish consumers were asked to make a choice between two chocolate bars with varying characteristics. These two choice experiments allow us to derive the WTP for a FT label and the actual WTP for FT based upon the label's underlying characteristics.

Our study shows that consumers are willing to pay a price premium of €0.84/100g for chocolate with a FT label. Further, consumers highly value FT characteristics. They are particularly willing to pay a premium for chocolate made from cocoa that is produced under good labor conditions and when these conditions are frequently controlled. Herein lays an opportunity for FT organizations to focus and report on these specific issues more frequently.

Our analysis suggests that current labels do not adequately incorporate consumers' values towards FT practices. Dispersion exists between the total WTP of a FT label and the WTP consumers attach to the specific characteristics of a FT label, and this dispersion is robust for possible hypothetical bias and ordering effects. Part of the lower effectiveness of FT labels in current food markets can thus be attributed to the fact that these labels do not completely incorporate and communicate the ethical characteristics they stand for to consumers who value these characteristics. This means that although consumers might have strong preferences for sustainability issues such as FT characteristics, they will not be optimally incentivized when they decide what to purchase, the moment they are using the FT label.

Our results do not imply that FT labels do not have any impact in food markets today. They only show that at present they do not convey the FT characteristics of the product and as such they do not manage to capture the consumers' preferences for fair-trade products at the

demand side of the market. Linking the FT label closer with peoples' preferences and communicating clearly what the label is standing for could be one of the possibilities for FT organizations and other stakeholders to expand the FT market. However just providing more information will not be enough (Zander & Hamm, 2010). Further insights are needed into how the notion of ethical food can be translated in terms of values and actual choices (de Boer et al., 2007). FT organizations could improve transparency into the price decomposition as to increase trust in their labels. Improved transparency and increased trust is expected to make more mindful consumption choices possible (Hoogland et al., 2005). Last, FT organizations can optimize their label design with insights from nudge theory to make FT the default purchase option (Olander & Thogersen, 2014).

References

Ben-Akiva, M. E., & Lerman, S. R. (1985). Discrete choice analysis: theory and application to travel demand (Vol. 9). MIT press.

Andorfer, V. A., & Liebe, U. (2012). Research on fair trade consumption—A review. Journal of business ethics, 106(4), 415-435.

Benz, M., & Meier, S. (2008). Do people behave in experiments as in the field? Evidence from donations. Experimental Economics, 11(3): 268-281.

Beyer, D. (2012). Child Labor in Agriculture: Some New Developments to an Ancient Problem, *Journal of Agromedicine*, 17:2, 197-207.

Birol, E., Karousakis, K., & Koundouri, P. (2006). Using a choice experiment to account for preference heterogeneity in wetland attributes: the case of Cheimaditida wetland in Greece. Ecological economics, 60(1), 145-156.

Bradu, C., Orquin, J. L., & Thøgersen, J. (2013). The mediated influence of a traceability label on consumer's willingness to buy the labelled product. Journal of Business Ethics, 1-13.

BTC. (2012). Gedrag, attitudes en opinies van personen die in België wonen ten aanzien van producten uit eerlijke handel.

Carlsson, F., Mørkbak, M. R., & Olsen, S. B. (2012). The first time is the hardest: A test of ordering effects in choice experiments. Journal of Choice Modelling, 5(2), 19-37.

Chartrand T.L., Huber J., Shiv B., Tanner R.J. Nonconscious Goals and Consumer Choice. Journal of Consumer Research 2008;35:189-201.

Clark, J. (2002). House money effects in public good experiments. Experimental Economics, 5(3), 223-231.

Cummings, R.G., Harrison, G.W., & Rutström, E.E. (1995). Homegrown values and hypothetical surveys: Is the dichotomous choice approach incentive-compatible? American Economic Review, 85: 260–266.

Day, B., Bateman, I. J., Carson, R. T., Dupont, D., Louviere, J. J., Morimoto, S., ... & Wang, P. (2012). Ordering effects and choice set awareness in repeat-response stated preference studies. Journal of Environmental Economics and Management, 63(1), 73-91.

De Boer, J., Hoogland, C. T., & Boersema, J. J. (2007). Towards more sustainable food choices: Value priorities and motivational orientations. Food Quality and Preference, 18(7), 985-996.

De Pelsmacker, P., Driesen, L., & Rayp, G. (2005a). Do consumers care about ethics? Willingness to pay for fair-trade coffee. Journal of Consumer Affairs, 39, 363–385.

de-Magistris, T., Gracia, A., & Nayga, R. M. (2013). On the Use of Honesty Priming Tasks to Mitigate Hypothetical Bias in Choice Experiments. American Journal of Agricultural Economics, 95(5), 1136-1154.

Eckhardt, G. M., Belk, R., & Devinney, T. M. (2010). Why don't consumers consume ethically?. Journal of Consumer Behaviour, 9(6), 426-436.

European Fair Trade Association, 2001. Fair Trade in Europe. Facts and Figures on the Fair Trade sector in 18 European countries. Available at: http://www.european-fair-trade-association.org/efta/Doc/FT-E-2001.pdf

Fairtrade International (2012). Challenge & Opportunity. Supplement to Annual Review 2010-11. 2010 Financials and Global Sales Figures.

Grunert, K. G., Hieke, S., & Wills, J. (2014). Sustainability labels on food products: Consumer motivation, understanding and use. Food Policy, 44, 177-189.

Hanley, N., Mourato, S., & Wright, R. E. (2001). Choice Modelling Approaches: A Superior Alternative for Environmental Valuatioin?. Journal of economic surveys, 15(3), 435-462.

Harrison, G. W. (2006). Experimental evidence on alternative environmental valuation methods. Environmental and Resource Economics, 34(1), 125-162.

Harrison, G. W., & List, J. A. (2004). Field experiments. Journal of Economic Literature, 42(4): 1009-1055.

Hensher, D. A., & Greene, W. H. (2003). The mixed logit model: the state of practice. Transportation, 30(2), 133-176.

Hensher, D. A., Rose, J. M., & Greene, W. H. (2005). Applied choice analysis: a primer. Cambridge University Press.

Hoogland, C. T., de Boer, J., & Boersema, J. J. (2005). Transparency of the meat chain in the light of food culture and history. Appetite, 45(1), 15-23.

ICCO. (2007). Sustainable cocoa economy: Comprehensive and participatory approach. London: International Cocoa Organization.

- (2012). The World Cocoa Economy: Past and Present

KPMG. (2012). Cocoa Certification. Study on the costs, advantages and disadvantages of cocoa certification commissioned by The International Cocoa Organization (ICCO)

Krain, E., Miljard, E., Konan, E., Servat, E. (2011). Trade and Pro-Poor Growth: Introducing Rainforest Alliance Certification to Cocoa Production in Côte d'Ivoire. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).

Krystallis, A., G. Maglaras, et al. (2008). "Motivations and cognitive structures of consumers in their purchasing of functional foods." Food Quality and Preference 19(6): 525-538.

Langen, N. (2011). Are ethical consumption and charitable giving substitutes or not? Insights into consumers' coffee choice. Food Quality and Preference, 22(5), 412-421.

Levitt, S. D., & List, J. A. (2007). What do laboratory experiments measuring social preferences reveal about the real world? The journal of economic perspectives, 153-174.

List, J. A., & Shogren, J. F. (1998). Calibration of the difference between actual and hypothetical valuations in a field experiment. Journal of Economic Behavior & Organization, 37(2): 193-205.

Loureiro, M. L., & Lotade, J. (2005). Do fair trade and eco-labels in coffee wake up the consumer conscience? *Ecological Economics*, 53(1), 129-138.

Louviere, J. J., & Hensher, D. A. (1982). Design and analysis of simulated choice or allocation experiments in travel choice modeling. Transportation research record, (890).

Lozano, J., Blanco, E., & Rey-Maquieira, J. (2010). Can ecolabels survive in the long run?: The role of initial conditions. Ecological Economics, 69(12), 2525-2534.

Lusk, J. L., Roosen, J., & Shogren, J. F. (2011). The Oxford Handbook of the economics of food consumption and policy. doi:10.1093/oxfordhb/9780199569441.001.0001

Marian, L., Chrysochou, P., Krystallis, A., & Thøgersen, J. (2014). The role of price as a product attribute in the organic food context: An exploration based on actual purchase data. Food Quality and Preference, 37, 52-60.

Max Havelaar. (2012). Cacao en Fairtrade. Fier op onze chocolade, zeker als het Fairtrade is.

McFadden, D. (1974). The measurement of urban travel demand. Journal of public economics, 3(4), 303-328.

McEachern, M. G. and P. McClean (2002). "Organic purchasing motivations and attitudes: are they ethical?" International Journal of Consumer Studies 26(2): 85-92.

Moser, R., Raffaelli, R., & Notaro, S. (2014). Testing hypothetical bias with a real choice experiment using respondents' own money. European Review of Agricultural Economics, 41 (1): 25-46.

Norwood, F. B., & Lusk, J. L. (2011). Social desirability bias in real, hypothetical, and inferred valuation experiments. American Journal of Agricultural Economics, aaq142.

Ölander, F., & Thøgersen, J. (2014). Informing versus nudging in environmental policy. Journal of Consumer Policy, 37(3), 341-356.

Padel and Foster (2005). "Exploring the gap between attitudes and behaviour: Understanding why consumers buy or do not buy organic food." British Food Journal 107(8): 606-625.

Poelman, A., Mojet, J., Lyon, D., & Sefa-Dedeh, S. (2008). The influence of information about organic production and fair trade on preferences for and perception of pineapple. Food Quality and Preference, 19(1), 114-121.

Rousseau, S. (2015). The role of organic and fair trade labels when choosing chocolate. Food Quality and Preference, 44, 92-100.

Rousseau, S., & Vranken, L. (2013). Green market expansion by reducing information asymmetries: Evidence for labeled organic food products. *Food Policy*, 40, 31-43.

Rousu, M. C., & Corrigan, J. R. (2008). Estimating the welfare loss to consumers when food labels do not adequately inform: An application to fair trade certification. Journal of Agricultural & Food Industrial Organization 6(1), article 3.

Ruxton, G. D. (2006). The unequal variance t-test is an underused alternative to Student's t-test and the Mann–Whitney U test. Behavioral Ecology, 17(4), 688-690.

Schumacher, I. (2010). Ecolabeling, consumers' preferences and taxation. Ecological Economics, 69(11), 2202-2212.

Silva, A., Nayga Jr, R. M., Campbell, B. L., & Park, J. L. (2011). Revisiting cheap talk with new evidence from a field experiment. Journal of Agricultural and Resource Economics, 280-291.

Sörqvist, P., Haga, A., Langeborg, L., Holmgren, M., Wallinder, M., Nöstl, A., ... & Marsh, J. E. (2015). The green halo: Mechanisms and limits of the eco-label effect. Food Quality and Preference, 43, 1-9.

Tagbata, D. & Sirieix, S. (2008). Measuring consumer's willingness to pay for organic and Fair Trade products. International Journal of Consumer Studies,32(5), 479-490.

Train, K. (2003). Discrete Choice Methods with Simulation, Cambridge University Press.

Trudel, R., & Cotte, J. (2009). Does it pay to be good? MIT Sloane Management Review, 50, 61–68.

Tully, S. M., & Winer, R. S. (2014). The Role of the Beneficiary in Willingness to Pay for Socially Responsible Products: A Meta-Analysis. Journal of Retailing.

Uchida, H., Onozaka, Y., Morita, T., & Managi, S. (2014). Demand for ecolabeled seafood in the Japanese market: A conjoint analysis of the impact of information and interaction with other labels. Food Policy, 44, 68-76.

Van Amstel, M., Driessen, P., & Glasbergen, P. (2008). Eco-labeling and information asymmetry: a comparison of five eco-labels in the Netherlands. Journal of Cleaner Production, 16(3): 263-276.

Vecchio, R., & Annunziata, A. (2015). Willingness-to-pay for sustainability-labelled chocolate: an experimental auction approach. Journal of Cleaner Production, 86, 335-342.

Vermeir, I. and W. Verbeke (2006). "Sustainable food consumption: Exploring the Consumer "Attitude – Behavioral Intention" Gap." Journal of agricultural and environmental ethics 19(2): 169.

Vermeir, I., & Verbeke, W. (2008). Sustainable food consumption among young adults in Belgium: Theory of planned behaviour and the role of confidence and values. Ecological Economics, 64(3), 542-553.

Vlaeminck, P., Jiang, T., & Vranken, L. (2014). Food labeling and eco-friendly consumption: Experimental evidence from a Belgian supermarket. Ecological Economics, 108, 180-190.

Vlaeminck, P., Vandoren, J., & Vranken, L. (2015) Consumer Willingness to Pay for Fair Trade chocolate in The Economics of Chocolate, Edited by Johan Swinnen, Mara Squicciarini, chapter 10; Oxford University Press (in press)

Zander, K., & Hamm, U. (2010). Consumer preferences for additional ethical attributes of organic food. Food quality and preference, 21(5), 495-503.

Appendix

Table A1. Robustness of WTP estimates to priming and hypothetical bias treatments for 200gr of chocolate (EUR).

		CE with FT label					
		Priming effect			Hypothetical bias		
	Attributes	Not-primed	Primed	p-Value[a]	IC	NIC	p-Value[a]
Quality & Taste	70% Cocoa	2.72**	3.78***	0.451	4.96**	2.56***	0.311
		(0.57, 4.87)	(2.07, 5.49)		(0.53, 9.39)	(1.24, 3.87)	
	50% Cocoa	1.82**	1.46***	0.705	3.18**	1.03***	0.196
		(0.20, 3.43)	(0.54, 2.38)		(0.04, 6.32)	(0.26, 1.80)	
Label	Bio-FT	1.65**	2.42***	0.388	2.71**	1.73***	0.452
		(0.34, 2.97)	(1.28, 3.57)		(0.31, 5.12)	(0.91, 2.56)	
	FT	1.40**	1.29***	0.897	1.94*	1.06**	0.450
		(0.02, 2.78)	(0.36, 2.22)		(-0.18, 4.06)	(0.25, 1.88)	
Origin of cocoa	Brazil	0.32	0.03	0.696	0.77	0.16	0.487
		(-0.76, 1.41)	(-.92, 0.99)		(-0.78, 2.33)	(-0.55, 0.88)	
	Indonesia	-0.71	-0.42	0.712	-1.09	-0.15031	0.380
		(-1.99, 0.57)	(-1.26, 0.41)		(-3.04, 0.85)	(-0.91, 0.61)	
		CE with FT characteristics					
		Priming effect			Hypothetical bias		
	Attributes	Not-primed	Primed	p-Value[a]	IC	NIC	p-Value[a]
Environmental standards	Organic	1.21***	1.04**	0.796	1.78***	0.84**	0.176
		(0.32, 2.09)	(0.10, 1.98)		(0.61, 2.95)	(0.15, 1.52)	
	EU	1.84***	1.48***	0.655	1.95***	1.49***	0.587
		(0.72, 2.96)	(0.38, 2.58)		(0.57, 3.34)	(0.58, 2.39)	
Producer price	Fair	1.84***	1.45***	0.592	1.78***	1.61***	0.826
		(0.83, 2.86)	(0.45, 2.45)		(0.62, 2.94)	(0.75, 2.48)	
	Average	1.59***	1.71***	0.873	1.53***	1.64***	0.879
		(0.62, 2.56)	(0.61, 2.82)		(0.43, 2.63)	(0.75, 2.53)	
Community investment	High	0.94**	1.17**	0.742	1.32**	0.89**	0.545
		(0.04, 1.84)	(0.14, 2.20)		(0.21, 2.43)	(0.05, 1.74)	
	Average	0.30	0.43	0.823	0.47	0.39	0.889
		(-0.40, 1.01)	(-0.45, 1.32)		(-0.41, 1.36)	(-0.29, 1.07)	
Labor conditions	Freq. controls	2.36***	3.01***	0.573	2.41***	2.87***	0.678
		(0.99, 3.73)	(1.21, 4.80)		(0.80, 4.03)	(1.43, 4.32)	
	Infreq. controls	0.68*	1.63***	0.190	1.12**	1.19***	0.913
		(-0.04, 1.40)	(0.42, 2.85)		(0.15, 2.09)	(0.37, 2.01)	

[a] We test whether there is a difference in WTP for the FT label or fair trade characteristics between the primed and non-primed subsample and between the incentive compatible (IC) and non-incentive compatible (NIC) subsample
***,**,* indicate whether the WTP is significantly different from zero at the 1%, 5%, 10% level
Upper and lower limit of the WTP confidence interval between brackets