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Ethical Consumption and Social Context: Experimental Evidence from Germany and the United States

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Abstract

This research examines the role of social context in ethical consumption, specifically, the extent to which anonymity and social control influence individuals' decisions to purchase organic and Fair Trade coffee. Our research design overcomes biases of prior research by combining framing and discrete choice experiments in a survey. We systematically vary coffee growing method (organic or not), import status (Fair Trade or not), flavor, and price across four social contexts that vary in degree of anonymity and normative social control. The social contexts are buying coffee online, in a large grocery store, in a small neighborhood shop, and for a meeting of a human rights group. Subjects comprise 1,103 German and American undergraduate students. We find that social context indeed influences subjects' ethical consumer decisions, especially in situations with low anonymity and high social control. In addition, gender, coffee buying, and subjective social norms trigger heterogeneity regarding stated ethical consumption and the effects of social context. These results suggest previous research has underestimated the relevance of social context for ethical consumption and overestimated altruistic motives of ethical consumers. Our study demonstrates the great potential of discrete choice experiments for the study of social action and decision making processes in sociology.

Keywords: Ethical consumption, choice experiment, framing effect, social context, social norms

1. Introduction

Consumers in affluent societies increasingly consider the moral features of products in their everyday monetary decisions: they buy organic food, use renewable energy, abstain from buying clothes manufactured under dubious working conditions, and invest in companies that operate in a socially responsible manner (Harrison et al. 2007b). Ethical consumption can thus be defined as purchase decisions by persons concerned with not only the price of products and services, but also with the political, social, and environmental consequences of their purchases.

Friedman (1996) differentiated "boycotts" or negative buying behavior from "buycotts" or positive buying behavior. Boycotting under the banner of ethical consumption includes consumers' refusal to buy products and services that harm the environment, communities, animals, and workers. Buycotting involves consumers' deliberate purchasing of organic foods and Fair Trade products over other types of products. Organic refers to food grown without pesticides and herbicides. Fair Trade products refer mainly to items imported from small-scale farmers in developing countries who are guaranteed fair prices, safe working conditions, human rights, and environmental protections. This study focuses on consumers' deliberate purchases of organic coffee and Fair Trade coffee, the oldest and most widely available certified Fair Trade product in Germany and the U.S.[1]

Despite the growing body of cross-disciplinary research on ethical consumption, important gaps remain in its theoretical foundations and empirical approaches (cf. Andorfer & Liebe 2012; Lewis & Potter 2011a; Papaoikonomou et al. 2011). From a theoretical perspective, the field has been criticized for its focus on individual aspects of ethical consumer decisions while ignoring the structural, collective and cultural dimensions in explanations of ethical consumption practices (e.g., Clarke 2008; Koos 2011, 2012; Thøgersen 2010). An individualistic bias is especially noticeable in the many studies focusing on consumers' willingness to pay an ethical premium for organic and Fair Trade products, where consumers' resources are crucial determinants. So far, scholars rarely consider how contextual factors of social norms and behavioral expectations that go beyond individual consumer choice affect ethical consumption practices. Studies that consider social norms do so narrowly, typically examining consumers' subjective social norms, understood as individual perceptions of re-

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[1] While the market shares of organic coffee and Fair Trade coffee are around two percent in Germany and three percent in the U.S., retail sales have grown steadily (TransFair 2012b; FAO 2009).

ceiving social rewards for ethical purchases (Ozcaglar-Toulouse et al. 2006; Dean et al. 2008).

From a methodological perspective, these studies' results may overestimate the effect of social norms because of social desirability bias, that is, respondents' tendency to over-report socially desirable behavior and underreport socially undesirable behavior, particularly in interviewer-administered surveys (Tourangeau et al. 2000; Gwartney 2007; Dillman et al. 2009). In addition, many prior surveys use simple Likert-types scales to measure the strength of individuals' intention to buy ethical products or their actual purchase behavior (Andorfer & Liebe 2012). Such questions do not reflect real-world purchase behavior in which people make decisions about trade-offs between product attributes, such as price versus quality versus environmental degradation.

This study addresses two gaps in research on ethical consumption. First, we analyze the role of social context in ethical consumer decision making. By social context we mean *the characteristics of situations in which people buy products and how those influence ethical consumer choices at the level of the individual consumer*. Social contexts are bound to social norms, that is, "[…] cultural phenomena that prescribe and proscribe behavior in specific circumstances" (Hechter & Opp 2001: xi). As such they influence how individual consumers perceive the opportunities, constraints, and motivations of individual ethical consumption decisions.

To both minimize potential social desirability bias and to analyze how social contexts affect consumer behavior, we implemented a self-administered questionnaire with a framing experiment. Specifically, we randomly assigned subjects to four social contexts which systematically varied the normative characteristics, or frames, of a hypothetical consumer situation. A strength of this approach is that respondents do not know that they are part of a framing experiment. In addition, it allows us to differentiate heterogeneity in taste (that is, group differences in preferences for certain features of ethical products) from heterogeneity with regard to social context. This research design allows us to analyze whether and to what extent organic as well as Fair Trade purchases and social context effects vary between groups.

Second, we used a discrete choice experiment to measure respondents' stated ethical consumption. This method approximates real-world purchase behavior and reduces potential social desirability bias and, for these reasons, is widely used in economic research to study the valuation of public and private goods, including Fair Trade and organic (Hanley et al. 1998; Carlsson et al. 2010). The basic idea of a choice experiment is that products differ in their characteristics; each combination of characteristics yields a different product. Respond-

ents are asked to choose from an array of products the one they favor most. Such a design allows researchers to estimate the effect or value of each product characteristic on respondents' stated choices. Choosing among different product alternatives mirrors real purchase decisions more closely than simple items in surveys. Respondents' repeated choices and trade-offs as they decide among product characteristics are assumed to lower potential social desirability bias.

At a more general level, we demonstrate that discrete choice experiments are a promising method for sociological research. The study of social context and decision making processes is a key explanandum in sociological research. In most aspects of daily living, individuals have to choose between alternatives that are characterized by different attributes. Choice experiments are a helpful tool for social scientists because they allow estimating the influence of various attributes on decisions while representing those decisions more realistically than other common methods, i.e., simple survey items and factorial surveys (Wallander 2009; Jasso & Opp 1997; Jasso 2006).

2. How Social Context Affects Ethical Consumption

This section presents theoretical considerations and empirical evidence for the effects of social context on ethical consumption. We then examine the question of how differences in ethical consumption behavior in general, and effects of social context in particular, can be explained. Finally, we introduce the framing of social context in our empirical study on purchasing organic and Fair Trade coffee.

2.1 Social Context Matters

Research on ethical consumption is dominated by theoretical approaches that focus almost exclusively on determinants at the level of the individual consumer (e.g., Clarke 2008; Koos 2011, 2012; Thøgersen 2010). Here, economic explanations of consumer choice within consumers' budget restrictions feature prominently (see Andorfer & Liebe 2012). From this perspective consumers' decisions to buy a product are mainly influenced by their income and the product's price and quality. Given a product with desirable characteristics, consumers' likelihood of purchasing it should increase as its price declines. For products with similar prices,

consumers should prefer the highest-quality product alternative. However, some consumers are willing to pay a higher price in order to obtain a product with other characteristics they value, such as ethically defensible manufacturing. Ethical products (for example, organic and Fair Trade coffee) include an additional product attribute lacking in conventional products (for example, conventional coffee), namely the socially and environmentally sound conditions in which they are manufactured. For example, some consumers care about coffee producers' living conditions in developing countries so much that they are also willing to pay more for their coffee in order to improve those conditions. Some consumers are so concerned about the negative effects of pesticides and herbicides on the environment, they will pay more for their coffee for the assurance it was grown without such chemicals. Such consumer behavior can be explained with altruism and altruistic preferences, respectively (Liebe et al. 2011). Consumers who value these ethical attributes are willing to pay a higher price (that is, a premium), and this willingness to pay is constrained by their economic resources (disposable income).

From a sociological perspective, however, consumer preferences and economic constraints do not suffice to explain Fair Trade consumption. Moving beyond narrow conceptions of social action (e.g., Opp 1999), scholars have investigated how economic constraints and moral motives, including altruism, are interlinked (e.g., Sunderer & Rössel 2012); highlighted the importance of Fair Trade consumption as means to express and construct self-meaning as moral persons (e.g., Adams & Raisborough 2010; Varul 2010); and linked Fair Trade purchases to questions of conspicuous consumption (Veblen 1899) and distinction (Bourdieu 1984) of upper and middle class consumers (e.g., Adams & Raisborough 2008; Johnston 2008; Johnston et al. 2011.

We understand social context as the characteristics of the situation in which a product is purchased and consumed, respectively. Such characteristics are bound to normative expectations and social norms on how to act adequately in a given situation. Individuals try to act in line with these behavioral guidelines to gain social rewards (i.e., approval) or to avoid social sanctions (i.e., disapproval) (Sherif 1936; Ajzen 1991, 1988; Coleman 1990; Ostrom 1990; Hechter & Opp 2001). Clearly, consumers can only get sanctioned for their ethical consumption behavior (that is, receive social approval or disapproval) if others can observe and monitor it.

Social situations differ in the degree of anonymity and social control with regard to the possibility of monitoring individuals' buying behaviors. In general, social control refers to

"[…] the ability of social groups or institutions to make norms or rules effective" (Reiss 1951: 196; see also Janowitz (1975) and Meier (1982)). Norm effectiveness is more likely if individuals' actions can be observed because members of a society can punish and reward individual behavior. We therefore conceptualize social control as a mechanism to induce norm compliance.

Research on norm compliance typically focuses on negative reactions to counter-normative or deviant behavior (Black 1983; Brauer & Chekroun 2005). Our conceptualization extends prior research by including positive sanctioning, that is, positive reactions to normative behavior. This conceptualization is consistent with the notion of social control as external control (Liska 1997: 40):

> "External control refers to a social process whereby people conform to norms or rules because they are rewarded with status, prestige, money, and freedom when they do adhere to them and are punished with the loss of them when they do not. This process is sometimes termed coercive, external, or just social control."

Yet social sanctions in the form of punishment and reward presume that a norm, that is, a behavioral prescription, is present in a population (Coleman 1990). A norm's existence and perception, including credible sanctions, presumes that people are aware of the norm at hand and share the attitudes of their peers (Mead 1925: 274). Compared to buying other products, ethical products like organic and Fair Trade coffee, include a strong normative component in the sense that most individuals perceive their purchase and the corresponding consequences as socially desirable (for example, environmental protections and improving farmers' livelihoods in developing countries).

We theorize that such perceived social desirability and corresponding normative expectations are more often transformed into actual purchases in situations or social contexts in which third parties can monitor and sanction by them; i.e., when ethical consumption behavior is visible to others, and hence the level of anonymity is low. We therefore propose that in situations in which individuals make ethical consumption decisions, *low anonymity and high social control positively influence the likelihood of choosing ethical products.*

Our argument about the effect of social context in ethical consumption is consistent with research on anonymity in behavioral experiments (Hoffman et al. 1994; Hoffman et al. 1996), framing effects (Tversky & Kahneman 1981, 1986), priming effects (Bargh et al.

1996), and behavioral conformity (Carlsson et al. 2010).[2] We briefly outline the evidence below.

Experiments indicate that anonymity of the decision-making process matters. While some people behave in a manner that can be interpreted as altruistic without prompting (Camerer 2003; Falk & Fischbacher 2006; Harbaugh et al. 2007), they are more likely to act in a socially desirable manner consistent with a social norm prescribing altruistic behavior, such as "doing good," when observed by the experimenter (Hoffman et al. 1994; Hoffman et al. 1996; Franzen & Pointner 2012). Thus, context matters. However, positive giving behavior decreases considerably, or even reverses to taking, depending on the degree of anonymity in experimental situations, the nature of the recipient, social distance, and other factors (Eckel & Grossman 1996, 1996; List 2007). Research on *framing effects* and *priming effects* demonstrates that the way in which researchers present decision problems to subjects can strongly affect their judgments and decisions. For example, giving subjects positive information about nuclear power leads to positive affect and lower risk evaluation of this technology whereas pointing out the dangers leads to negative affect and higher risk evaluations (Slovic et al. 2004). Asking survey respondents to imagine being in a large group (priming on the first page of the questionnaire) is associated with them donating less to charity (question on the second page of the questionnaire) compared to respondents who were not primed to think of themselves in a large group (Garcia et al. 2002). These findings are consistent with classic research on the bystander effect and the diffusion of responsibility with respect to helping behavior (Darley & Latené 1968). Such prior research suggests that consumers' evaluation of organic and Fair Trade products are influenced by varying the social contexts of their decisions with framing or priming.

Finally, our argument is supported by research on behavioral conformity. For example, Carlsson et al. (2010) found that Swedish women, but not men, will pay more for organic coffee if they are informed that other consumers choose organic coffee. Such findings suggest that social conformity affects women's decisions more than men's.

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[2] Additional studies from sociology and social psychology provide ample evidence that social context in general and (perceived) visibility of individual behavior affect norm-related behavior (Sherif 1936; Asch 1956; Milgram et al. 1969; Darley & Latane 1970; Cialdini & Goldstein 2004; Nolan et al. 2008). Examples include tipping at restaurants (Freeman et al. 1975), drawing graffiti in elevators (Chekroun & Brauer 2002), and contributing to an honesty box to pay for drinks in a café (Bateson 2006).

2.2 Social Context Matters – Differently for Different People

In addition to social context effects on ethical consumption behavior, we expect that individuals differ with regard to both their taste for ethical product features (that is, preference heterogeneity) and the effect of social context. We identify three determinants that are likely to explain variations in buying behavior in differing social contexts, namely gender, product experience, and subjective social norms.

Women consistently exhibit stronger ecological value orientations, a higher level of environmental concern, and a greater likelihood to act in an environmentally friendly manner than men (Stern et al. 1993; Greenbaum 1995; Dietz et al. 1998; Zelezny et al. 2000). To date, however, there are no convincing explanations for such findings. Zelezny et al. (2000) identify socialization processes and specific gender roles as potentially influential factors. The gendered division of household labor could be the main mechanism (Brines 1994). For example, if women are responsible for food purchasing and preparation more often than men, it might positively correlate with an awareness of food quality and food characteristics, such as organic production and Fair Trade.

Prior experience with a product can also result in taste heterogeneity and differential context effects. Specifically, respondents' choices are likely to depend on whether they drink coffee or not. Those who drink coffee may be affected by the framing of the choice task in the choice experiment if they remember the context from their own experience (for example, buying coffee in a small shop in the neighborhood). In general, we expect the evaluation task in the survey to be more realistic for coffee drinkers, consistent with the concept of experienced utility (Kahneman et al. 1997; Kahneman & Thaler 2006). Stated preferences in a specific context are expected to be more accurate if respondents learn from past experience. Even if these memories are biased, we expect coffee drinkers to express different responses than non-coffee drinkers.
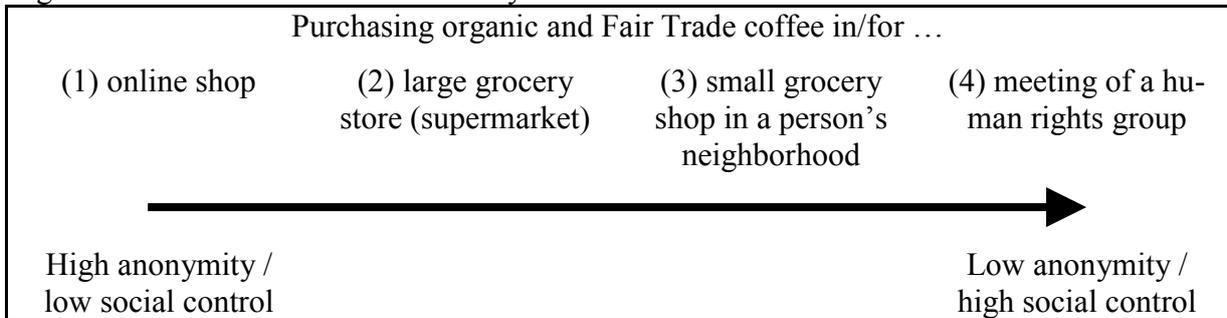
Subjective social norms can also affect preference heterogeneity and context effects (Ajzen 1991). Although norms do not always result in corresponding behavior, perceived normative expectations might be stronger if respondents perceive that their peer group favors organic and Fair Trade purchases. In this case, a social norm is already present when facing a specific buying situation. Individuals who do not perceive social rewards from their peer group might behave differently than those who do, e.g., they might show a weaker preference for the organic and Fair Trade attributes of coffee and be less affected by the fact that their behavior is visible to others (that is, low anonymity in a buying situation). By taking a subjective social norm into account, we can test the basic assumption with regard to norm percep-

tion. We assume, in general, that the effects of social context, anonymity, and social control are more likely if ethical consumption behavior is perceived as socially desirable behavior.

2.3 Social Context Matters-Framing of Buying Situations

The arguments and evidence so far support our propositions that social contexts matter with regard to ethical consumption and that group differences are likely. Combining a framing experiment and a discrete choice experiment, we test whether varying degrees of anonymity and social control—i.e., normative expectations in a buying context—influence individuals' ideas about purchasing organic and Fair Trade products.

Figure 1: Four Social Contexts to Study Normative Influences

Purchasing organic and Fair Trade coffee in/for …			
(1) online shop	(2) large grocery store (supermarket)	(3) small grocery shop in a person's neighborhood	(4) meeting of a human rights group

High anonymity / low social control → Low anonymity / high social control

Our empirical analysis employs four social contexts (and a no-frame group as control condition) in hypothetical buying decisions of Fair Trade and organic coffee (see Figure 1). That is, buying coffee (1) online, (2) in a large grocery store or supermarket, (3) in a small grocery shop in one's own neighborhood, and (4) for the meeting of a human rights group. These contexts vary in the degree of anonymity and social control of the buying decision. Consumers are unlikely to gain direct social benefits by ordering coffee online sitting alone at a computer (except in the unlikely situation that they announce their purchase online using social media). They may, however, gain social (dis)approval by imagining others observing their purchase in a large supermarket. We assume that such perceptions are stronger in a small convenience store close to their residence, where customers repeatedly interact with neighbors who may notice their purchases. This context provides the opportunity to encounter social (dis)approval of others and to create and express a self-image as an ethical consumer. The fourth context, a human rights group meeting, represents the strongest possible normative expectations about adequate ethical consumption behavior. In it we expect the most

social control and the lowest degree of anonymity, compared to the other contexts. In other words, we expect subjects to imagine the greatest social disapproval for bringing conventional coffee to a human rights group meeting and consequently adopt others' expectations about their ethical purchasing behavior.

3. Method: Discrete Choice Experiments

How important are the political, social, and environmental consequences of purchases in consumer decision making? Discrete choice experiments (DCE) offer an elegant method to answer this question. In a DCE respondents are presented with choice sets in a questionnaire that offer different options or behavioral alternatives, and they are asked to choose the alternative they prefer most. Each choice alternative is described by different attributes with different levels (or values), allowing researchers to estimate the effect of each attribute on individual behavioral choices.

In addition to looking at attribute effects, DCEs allow analysis of substitution patterns. These show to what extent individuals are prepared to give up some amount of a specific attribute to obtain more of another attribute. If the choice set contains a monetary attribute, such as cost, this can be expressed in marginal willingness-to-pay values or marginal willingness-to-accept values. These show how much money an individual is prepared to give up or would need in order to obtain or prevent more of a certain alternative.

The DCE method originated in marketing and transportation research, to help understand consumer preferences for new products and services (see Louviere et al. (2000) for an overview). A typical research question might be, "How much demand exists for low-emission and zero-emission vehicles?" Applications of DCE can also be found in environmental, health and agricultural economics in order to measure citizens' preferences, estimate willingness-to-pay values as well as market shares for environmental amenities and programs (Bennett & Blamey 2001), health measures (Ryan et al. 2008), and food products (Alfnes & Rickertsen 2011). In sociology, however, this method has rarely been applied to date (for an exception, see Buskens and Weesie (2000) on social embeddedness in trust relations).

DCEs have a great potential for sociological research. Typically, sociologists interested in explaining individual behavior and social action examine the social context and propose certain situational factors and determinants (attributes) relevant to decision making. Examples include choices about education, trust, family, and political party. Compared with survey

measurements based on one-dimensional survey statements, DCEs have the advantage of enabling researchers to single out the importance of each theoretical determinant, by the nature of the experimental design.

Also, they are closer to real world behavior than simple survey items because the behavioral attribute of interest (e.g., preference for Fair Trade) is one among others that DCEs require respondents to choose from (e.g. between the coffee attributes organic production, Fair Trade, and price). The measurement is therefore indirect compared with direct questioning, but this aspect has the potential advantage of less social desirability bias, especially if ethical aspects are involved. Moreover, respondents explicitly choose between at least two behavioral alternatives, as they do in daily life, instead of agreeing or disagreeing with a statement of opinion. In these ways, DCEs provide a more realistic operationalization of individual behavior and decision-making.

DCEs combine insights from the characteristics theory of value (Lancaster 1966) and random utility theory (McFadden 1974). The characteristics theory of value assumes that individuals do not derive utility from a product per se, but from a product's characteristics (and attributes, respectively): "The chief technical novelty lies in breaking away from the traditional approach that goods are the direct objects of utility and, instead, supposing that it is the properties or characteristics of the goods from which utility is derived" (Lancaster 1966: 133). It follows, therefore, that researchers who are interested in individuals' preferences for consumer products (or any behavioral alternatives) have to study their preferences for a product's attributes. Applying this to our study of ethical consumption, a coffee product, for instance, can be characterized by different attributes such as taste, price, and the degree of both environmentally and socially sustainable production methods (for example, organic production and good working conditions).

DCEs are a method that can single out the importance of each of these attributes. This is done against the backdrop of random utility theory, assuming that utility is a latent construct that exists (if at all) in the head of individuals but cannot directly be observed by researchers. However, with the help of appropriate methods it is possible to explain a (systematic) part of utility while a random part remains unexplained. The explainable part consists of attributes that describe (behavioral) choice alternatives, and of individual characteristics that affect behavioral choices. The unexplainable (random) part of utility comprises the unobserved heterogeneity of individuals, situational attributes and measurement errors. Individuals are assumed to make utility-maximizing discrete choices. This can be expressed more formally as follows (Louviere et al. 2000; Louviere et al. 2010):

$$U_{in} = V_{in} + \varepsilon_{in}, \tag{1}$$

where U_{in} is the overall latent and unobservable utility of choice alternative i for individual n, V_{in} is the explainable and systematic part of the utility of choice alternative i for individual n and ε_{in} is the unexplainable and random component of the utility of alternative i for individual n.

The researcher can only investigate the probability that individual n will choose alternative i. The reason is that the overall utility includes a random (stochastic) component. In turn, random utility theory corresponds with probabilistic discrete choice models where choice probabilities depend on (changes of) attributes of choice alternatives and characteristics of the decision maker. The probability that individual n chooses alternative i from a choice set C_n is given by

$$P(i|C_n) = P[(V_{in} + \varepsilon_{in}) > Max(V_{jn} + \varepsilon_{jn})], \text{ for all j options in } C_n. \tag{2}$$

Max refers to the maximum operator. As represented in the second equation, utility maximizing behavior implies that the probability of choosing alternative i from choice set C_n by individual n equals the probability that the explainable (systematic) and unexplainable (random) parts of alternative i for individual n is greater than the stochastic and random parts of all other alternatives presented in the choice set C_n.

Assuming that the error terms ε are independent and identically distributed and follow a standard type I extreme-value distribution, one can derive a closed-form expression for P_{ni}, the conditional logit model, as

$$P_{in} = \frac{\exp(V_{in})}{\sum_{j \in C} \exp(V_{jn})} \tag{3}$$

where the scale parameter of the error distribution is normalized to 1, and omitted, and the systematic component of the indirect utility of the i th alternative is assumed to be a linear function such that

$$V_{in} = ASC + \beta_k X_{ik}, \tag{4}$$

where *ASC* denotes an alternative specific constant, β_k a vector of preference parameters associated with attribute k, and x_{ik} a vector of attributes of alternative i.

However, the conditional logit model relies on a set of restrictive assumptions (Train 2009) and is thus in many cases not a behaviorally sound approach for analyzing discrete-choice data. As a response to its limitations, the mixed logit model has been developed. The three key components of this model are (i) using random parameters to capture taste heterogeneity, (ii) using error components to capture shared variation across alternatives, and (iii) recognizing the panel character of the data, that is, that generally respondents face more than one choice set in a survey.

In the following we first present the experimental design of the choice experiment and the framing of social contexts, second the data collection process and descriptive information, third our statistical approach based on error component logit models, a type of mixed logit model, and fourth the empirical results.

4. Experimental Design

4.1 Choice Experiment

The choice experiment includes three generic alternatives (Coffee 1, Coffee 2, Coffee 3) and a no-buy option (None of these). The alternatives are described by the four attributes (flavor, organic, Fair Trade, and price) that can take on different levels. Table 1 gives an overview on the attributes and their respective levels, and Figure 2 depicts an example of a choice set as used in the survey.

Table 1: Attributes and Levels in the Choice Experiment

Attribute	Levels
Organic	No, yes
Fair Trade	No, Yes
Flavor	Mild, Medium, Dark
Price	$6.79, $8.19, $9.59, $10.99

Figure 2: Example of a Choice Set (Control Group)

	Coffee 1 (1 lb.)	Coffee 2 (1 lb.)	Coffee 3 (1 lb.)	
Organic	Yes	Yes	No	
Fair trade	No	Yes	Yes	
Flavor	Dark	Mild	Medium	
Price	$6.79	$8.19	$6.79	
Which coffee would you buy?	☐	☐	☐	None of these ☐

Three alternatives with four attributes give a very large full factorial, that is, the number of all possible groupings of attribute (level) combinations: (3x2x2x4)x(3x2x2x4)x (3x2x2x4) = 110,592. Since this is too large to be used in a survey, we work with a so-called fractional factorial design. More specifically, we employ an efficient design using fixed priors for the parameters in the experiment (that is, the effects of the attributes on the probability of choosing a coffee alternative). We obtained the prior values from a choice experiment study containing similar attributes to ours that was carried out by Cranfield et al. (2010) in Toronto and Vancouver, Canada.[3] We restricted our design to plausible alternatives and did not present respondents so-called dominant alternatives. We excluded, therefore, coffee alternatives that offer the attributes organic and Fair Trade but have a lower price than another alternative in the choice set with similar attributes (that is, respondents cannot get the same or more ethical characteristics for a lower price). Overall, we obtained an efficient design with 12 choice sets that is suitable for estimating (non-confounded) main effects of the attributes. In other words, based on this design the effect of each single attribute can be separated from the effect of the other attributes that are present in the experiment. In our study each respondent answered 12 choice sets.

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[3] The basic aim of this Bayesian design approach is to select choice sets in a way that they minimize the standard errors in the estimation model given the prior values (Bliemer & Rose 2009). Note that the aim of other design approaches that work without priors is to minimize the correlations between attributes. We used Ngene to create a so-called d-efficient design based on a conditional logit model including fixed priors.

4.2 Social Contexts

With regard to the social context we randomly assigned respondents to one of four treatment groups and one control group. The control group can be considered a standard DCE as it is typically carried out in economic valuation studies. The four treatment groups, however, got the information in the introductory text of the questionnaire and above each choice set as presented in Table 2. The treatments represent an increasing degree of social control (that is, less anonymity) and, hence, normative expectations of the buying context.

Table 2: Overview of Experimental Treatments Regarding Social Context

Treatment	Information	Choice Question	Social Control
Online shop	Imagine you are sitting alone at home at your computer and comparing various coffees on the internet. You decide to purchase your coffee at an online shop.	Which coffee would you buy online?	Very low
Large grocery store	Imagine you are buying coffee at a large grocery store.	Which coffee would you buy in the large grocery store?	Somewhat low
Nearby convenience store	Imagine a small convenience store close to the place where you live. You meet many of your fellow students while shopping there.	Which coffee would you buy at the convenience store?	Somewhat high
Meeting of a human rights organization	Imagine you go to a meeting of an on-campus student organization for human rights (e.g., Amnesty International) with a friend. Everyone going is asked to bring food or drinks to the meeting. You are asked to bring coffee.	Which coffee would you buy for the human rights group meeting?	Very high

5. Data and Measurement

Data collection was carried out distributing paper-and-pencil surveys in classrooms at a large university in Germany in May/June 2011 and at a large university in the U.S. in October/November 2011. In total, 556 students participated in the German survey and 547 in the U.S. survey. The questionnaire consisted of two parts: (1) the choice experiment in which each respondent was asked to answer 12 choice sets, and (2) a follow-up questionnaire with questions regarding coffee purchases, social norms, and socio-demographic characteristics. The survey task took respondents about 15 minutes to complete. The survey introduction explained to non-coffee drinkers and those who only drink decaffeinated coffee how the study still applied to them.

Table 3 gives an overview of respondents' characteristics per treatment and control group for both samples. Information on respondents' gender, coffee drinking and subjective social norm will be used to investigate taste heterogeneity (that is, differences in preferences for organic and Fair Trade coffee) and heterogeneity with regard to context effects (that is, differences in the influences of varying degrees of social control). As can been seen in Table 3, a higher number of women participated in the German survey compared with the U.S. survey. In both surveys the majority of respondents can be classified as coffee drinkers, that is, they responded positively to the question: "Do you drink coffee at all (e.g., drip brew, espresso, latté, instant, etc.)?" The subjective social norm was elicited with the question: "Consider the people whose opinion matters most to you, e.g., family or friends. To what extent would they approve if you bought Fair Trade coffee?" (five-point response scale "not approve at all", "somewhat not approve", "neither/nor approve", "somewhat approve", "strongly approve"). Based on a binary coded variable with a value of one if a respondent answered "somewhat approve" or "strongly approve" we find a higher level of norm intensity among the German respondents (around 60%) compared with the U.S. respondents (around 40% and 50%). The same question was used to ask for a subjective social norm regarding the purchase of organic coffee. It turned out that answers to both questions are highly correlated (correlation coefficients of 0.503, $p < 0.001$, for the German survey and 0.612, $p < 0.001$, for the U.S. survey). In the following therefore, we focus on the norm concerning Fair Trade coffee and consider it as a proxy for the norm concerning organic coffee.[4] Most respondents majored in the social sciences; other disciplines include biology and chemistry.

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[4] It has to be stressed that, compared to the other treatments, in the treatment human rights group we do not find significantly higher shares with respect to high norm intensity. Higher shares might be expected because the norm question was asked after the choice tasks and the framing in this treatment (that is, human rights group) might induce socially desirable response behavior regarding the norm question. However, such a bias is not present.

Table 3: Sample Means for Framing Variables by Social Contexts, Germany and U.S.

Country/Framing Variables	Social Contexts				
	Control	Online	Supermarket	Small Shop	Human Rights
Germany (n=556)	(n=118)	(n=117)	(n=99)	(n=117)	(n=105)
Gender (1=woman)	0.60	0.49	0.64	0.60	0.57
Coffee drinker (1=yes)	0.71	0.69	0.71	0.76	0.78
Social norm (1=yes)	0.62	0.61	0.61	0.60	0.64
Social science major (1=yes)	0.38	0.37	0.32	0.39	0.41
Economics major (1=yes)	0.23	0.23	0.20	0.22	0.27
Other major (1=yes)	0.19	0.28	0.31	0.32	0.21
U.S. (n=547)	(n=109)	(n=110)	(n=111)	(n=104)	(n=113)
Gender (1=woman)	0.46	0.47	0.53	0.46	0.54
Coffee drinker (1=yes)	0.67	0.64	0.63	0.60	0.68
Social norm (1=yes)	0.50	0.38	0.53	0.47	0.44
Social science major (1=yes)	0.26	0.21	0.23	0.30	0.28
Economics major (1=yes)	0.38	0.40	0.29	0.35	0.33
Other major (1=yes)	0.24	0.29	0.41	0.26	0.29

Notes: Due to missing data, cell sizes vary between 94 and 118. Differences between groups are not statistically significant, with two exceptions: fewer German women "online" than "supermarket" and lower social norm intensity among Americans "online" than "supermarket."

Overall, Table 3 shows that the randomization during data collection was successful regarding the variables gender, coffee drinker and social norm that will be used for explaining heterogeneity in taste and context effects. Aside from two noteworthy exceptions, we do not find statistically significant differences between the treatment/control groups. The two exceptions are as follows: first, in the German survey the treatment group "online" contains fewer women respondents than the groups "supermarket" ($p<0.05$). Second, in the U.S. survey a lower level of social norm intensity is present in the treatment group "online" compared to the groups "supermarket" ($p<0.05$).

6. Statistical Approach

In this study we use interaction effects among the choice attributes and individual specific characteristics to investigate observed taste heterogeneity instead of specifying random parameters dealing with unobserved heterogeneity. The reason for this is that we are explicitly interested in certain individual characteristics and whether they are significant sources of taste heterogeneity. However, we specify error components that enable identifying preference heterogeneity at the level of the alternatives presented on the choice sets. The error compo-

nents group alternatives together in terms of common unobserved effects (Scarpa et al. 2005; Jaeger & Rose 2008). The utility function of this error component logit (ECL) model is

$$U_{in} = V_{in} + E_{in} + \varepsilon_{in} \qquad (5)$$

where V_{in} is the systematic component of utility including the interaction effects among observable characteristics of the respondents and the choice attributes, E_{in} are the error components, and ε_{in} the same Type 1 extreme value term as in the conditional logit model. The error components are assumed to be from a normal distribution with zero mean and standard deviation one. When the additional error terms are associated with the designed alternatives, the utility functions are as follows:

$$U_{Alt1} = ASC_{Alt1} + V_{in} + E_{Alt1, Alt2, Alt3} + \varepsilon_{in} \qquad (6)$$
$$U_{Alt2} = ASC_{Alt2} + V_{in} + E_{Alt1, Alt2, Alt3} + \varepsilon_{in} \qquad (7)$$
$$U_{Alt3} = ASC_{Alt3} + V_{in} + E_{Alt1, Alt2, Alt3} + \varepsilon_{in} \qquad (8)$$
$$U_{NB} = V_{in} + \varepsilon_{in} \qquad (9)$$

where the subscripts Alt1, Alt2 and Alt3 indicate the designed alternatives of the choice experiment, and the subscript NB indicates an opt-out alternative or no-buy alternative, respectively. Due to the additional error component $E_{Alt1, Alt2, Alt3}$ there is no independence of irrelevant alternatives. The ECL model therefore also allows to treat repeated choices, that is, that choices undertaken by one individual are linked to each other (Hensher et al. 2005; Hensher et al. 2007).

Differences between social contexts and respondent groups can be investigated at the level of parameter estimates (that is, estimated utility functions) and willingness-to-pay values (that is, substitution patterns). With respect to parameter estimates, models are estimated that include interaction effects between the contexts, respondent groups (for example, women and men), and the ethical attributes organic and Fair Trade in a choice set. Differences in parameter estimates indicate differences in utility functions. For example, to what extent the product attributes organic and Fair Trade give higher or lower utility in specific social contexts or for specific groups in a population. All models were estimated using NLOGIT and choice probabilities were approximated by simulations based on 500 Halton draws.

In addition to looking at the utility function and parameters, substitution patterns can be investigated. They show to what extent individuals are prepared to give up some amount

of a specific product attribute to obtain more of another product attribute. Based on the price attribute this can be expressed in monetary terms, that is, marginal willingness-to-pay values (MWTP). They show how much income an individual is prepared to give up in order to obtain an organic or Fair Trade coffee compared to a conventional coffee. MWTP for the attributes organic and Fair Trade can be estimated by

$$MWTP = -\beta_{Attribute}/\beta_{price} \tag{10}$$

The 95% confidence intervals for the willingness-to-pay values are calculated using the Krinsky and Robb (1986) bootstrapping procedure with 1,000 draws.

7. Results

We present multivariate results for our German and U.S. data in Figures 3, 4, 5, and 6 as well as Tables A1 and A2 in the appendix. The figures plot unstandardized logit coefficients of error component logit models which comprise all choices of coffee alternatives in the choices set and the no-buy alternative. In the error component logit models, the coffee alternatives share a common error component because they are more similar to each other compared with the no-buy alternative. We present results of a basic model comprising effects of social context, that is, interaction effects between the ethical attributes organic and Fair Trade on the one hand and the four social contexts on the other hand (the control group is the reference for significance tests). Results of another three models are shown that capture heterogeneity in taste and context effects. In these models we include interaction effects regarding the ethical attributes organic and Fair Trade and the variables gender, coffee drinker, and norm intensity as well as context effects for organic and fair trade and the variables gender, coffee drinker, and norm intensity. We are therefore able to find out whether women and men, non-coffee drinkers and coffee drinkers as well as respondents expressing no or low subjective norm intensity and those expressing a high subjective norm intensity differ with respect to their preference for organic and Fair Trade coffee as well as context effects. Substitution patterns, that is, marginal willingness to pay for organic and Fair Trade coffee, are presented in Figures 8, 9, and 10.

Before discussing the effects of social contexts in our study, we point to the basic results of the stated choice experiment (for details see Tables A1 and A2 in the appendix). In

the German and U.S. data the alternative-specific constants of the three coffee alternatives are statistically significant and negative. In addition to what can be explained by the attributes in the choice experiment, respondents are more likely to choose the no-buy alternative than one of the three coffee alternatives. Moreover, the estimated standard deviation for the error component is statistically significant, indicating unobserved heterogeneity associated with the three coffee alternatives. German respondents have a positive preference for mild coffee (the reference category) compared with medium and dark coffee. Furthermore, irrespective of social context respondents value both organic production and Fair Trade positively. The effect is larger for the Fair Trade attribute. In line with economic reasoning, the coefficient of the price attribute is negative. In other words, the higher the price of a coffee alternative, the lower the likelihood that this alternative is chosen. We find exactly the same pattern of preferences in the U.S. data, except that respondents in the U.S. prefer medium coffee compared with mild coffee.

7.1 Basic Model with Social Context Effects

Figure 3 reports the results of the basic model regarding effects of social context for the German and U.S. data. It shows that, compared to all other social contexts and the control group, German respondents in the context "human rights group" have a higher likelihood of choosing a coffee alternative if the coffee is produced organically and under a Fair Trade regime. We find a large effect size for the context "human rights group".

The figure for the U.S. data shows that, there is no clear pattern with respect to context effects regarding the purchase of organic coffee and, hence, our proposition of context effects is not supported. But we do find the proposed context effect with regard to Fair Trade. There is an effect concerning the "human rights group" treatment that is remarkable in size (and statistical significance). Respondents in this treatment have a higher likelihood to choose a Fair Trade coffee compared with the remaining social contexts and the control group.

Figure 3: Coefficients of Error Component Logit Models per Country, Ethical Product Attribute and Social Context

Germany

U.S.
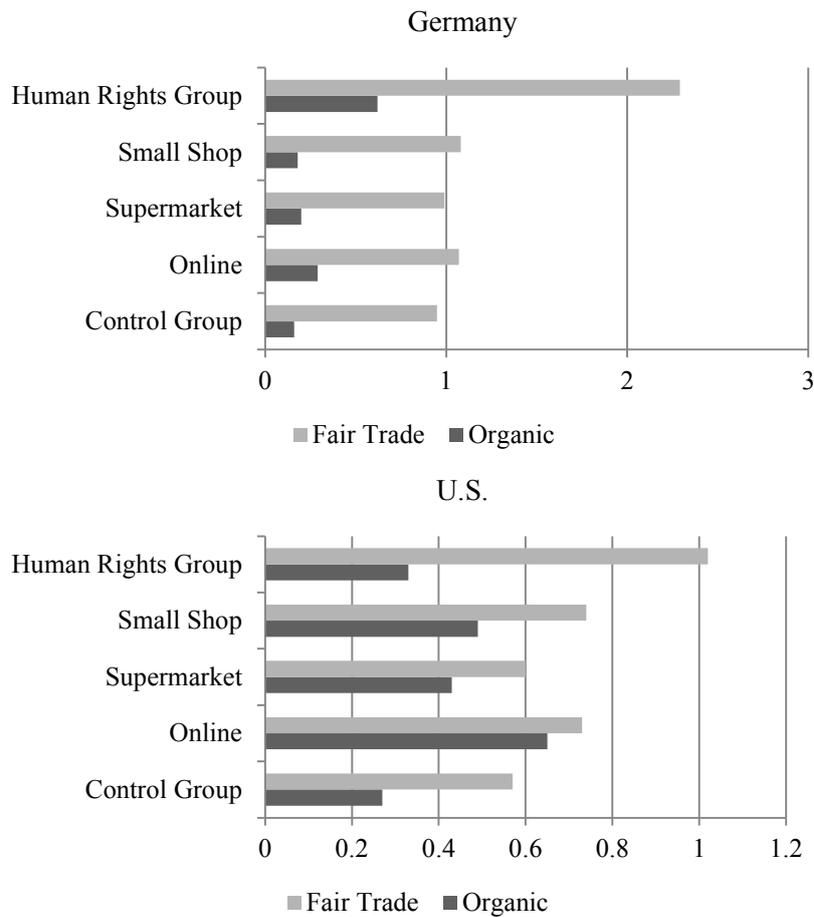
## 7.2 Heterogeneity in Taste and Social Context Effects

Gender. For gender, Figure 4 indicates differences in taste and context effects between men and women. For Germany, women state an overall higher preference for ethical attributes; they have a stronger preference for both organic coffee and Fair Trade coffee compared to men. The effect is much weaker for Fair Trade (10% significance level, see Appendix, Table A2) than for organic coffee (1% significance level, see Appendix, Table A2). Moreover, men gain disutility from organic coffee, indicated by the negative sign of the coefficient for the attribute organic in all social contexts except the "human rights group". The positive effect for women is consistent with previous findings on organic purchases.

Looking at the context effects for men respondents, we find strong effects in the treatment "human rights group." That is, the likelihood of buying organic coffee and Fair Trade coffee increases when men consider which coffee to bring to a human rights group

meeting. For the attribute "organic," the overall utility is positive in this, compared with the disutility in the other contexts. Women reveal a similar pattern regarding context effects. The effect of "organic" and Fair Trade is larger in the context of the "human rights group" compared to all other contexts.

For the U.S. data Figure 4 indicates that men and women alike state a positive preference for both organic coffee and Fair Trade coffee. Overall the effect is larger for Fair Trade. With respect to context effects, there is no clear pattern for organic production. Only with respect to Fair Trade do we find a clear context effect: for men respondents the likelihood of buying Fair Trade coffee is higher in the context of a "human rights group" than in all other contexts and the control group (yet the differences are only statistically significant compared to the control group). For women we find the same pattern and they state statistically significant stronger preferences for Fair Trade in the context of the "human rights group" than men. In sum, in the U.S. sample women state an overall more positive preference for Fair Trade than men and, compared with the German sample, our assumption that ethical consumption is more likely in contexts with low anonymity and high social control is only supported for Fair Trade but not organic production.

Figure 4: Coefficients of Error Component Logit Models for Gender per Country, Ethical Product Attribute and Social Context
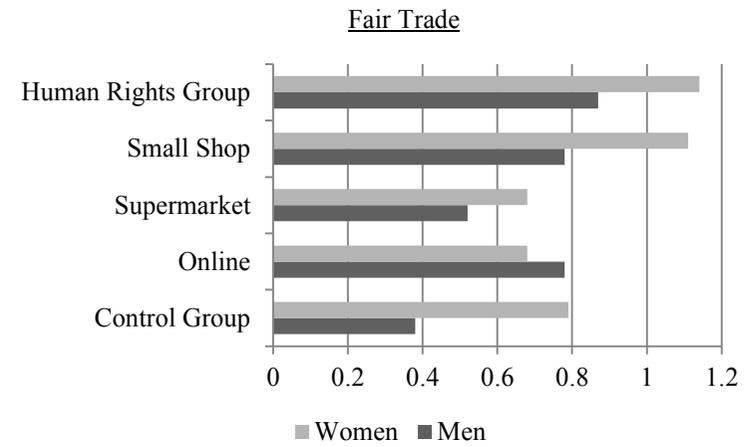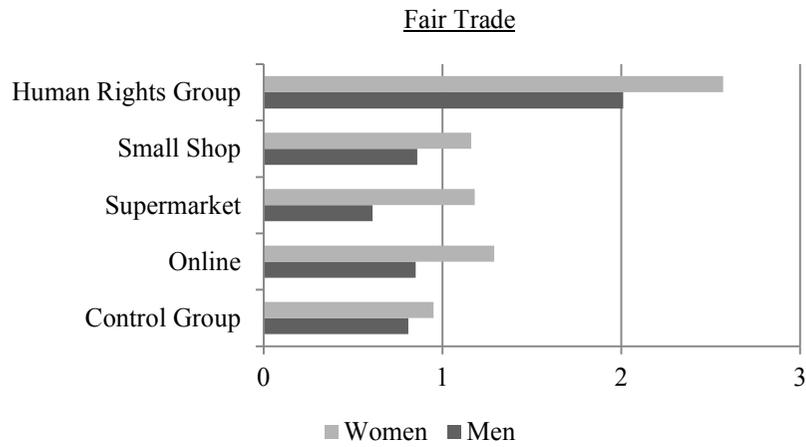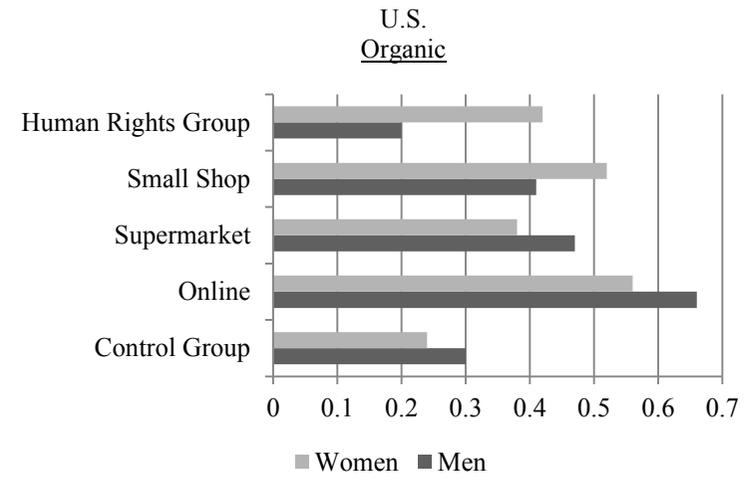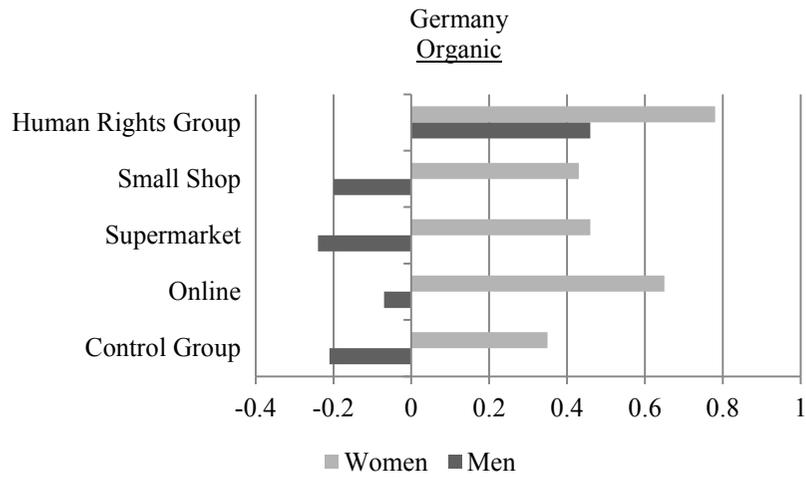
Experienced Utility. Figure 5 shows strong support for the assumption that experienced utility matters. In the German data, coffee drinkers value organic and Fair Trade coffee in all social contexts and the control group less positively than non-coffee drinkers. In the case of organic coffee, the valuation is even slightly negative in the control group. While we only find one positive and statistically significant context effect for non-coffee drinkers with regard to Fair Trade coffee in the "human rights group" context, coffee drinkers are more sensitive regarding social context. They show strong positive and statistically significant effects for the context "human rights group" concerning both organic coffee and Fair Trade coffee. These effects are overall larger than in the other contexts and the control group and can be characterized by both high anonymity and low social control.

Experienced utility also matters in the U.S. sample. Difficult to explain is the finding that in the control group and context "online shopping" coffee drinkers gain lower utility from organic coffee but higher utility from Fair Trade coffee compared with non-coffee drinkers. However, for coffee drinkers, compared with non-coffee drinkers, the effect of organic production is larger in the "small shop context" and "human rights group" context. For coffee drinkers, we find a positive and statistically significant effect of Fair Trade in the context of a "human rights group." This finding is consistent with our proposition. Yet our proposition is not supported for coffee drinkers and non-coffee drinkers with regard to organic production as well as for non-coffee drinkers with regard to Fair Trade.

Subjective Norms. Comparing German respondents with low and high subjective norm intensity in Figure 6, we find that those with low norm intensity express a positive preference for Fair Trade only. Organic coffee gives disutility in all social contexts (statistically significant and negative effects), except the "human rights group" context and the control group in which it is valued positively. The positive effect is much larger for the context "human rights group". Thus, for German respondents the proposed context effect for situations with high social control is supported even if they express low levels of a subjective norm. Respondents with high norm intensity express a strong preference for organic and Fair Trade coffee, and the corresponding figures can be interpreted as an upward shift in values for Fair Trade coffee compared to the respondents with low norm intensity. The only exception is the difference for the attribute organic in the control group; here we do not find a statistically significant difference between respondents with low and high norm intensity.

Figure 5: Coefficients of Error Component Logit Models for Experienced Utility per Country, Ethical Product Attribute and Social Context
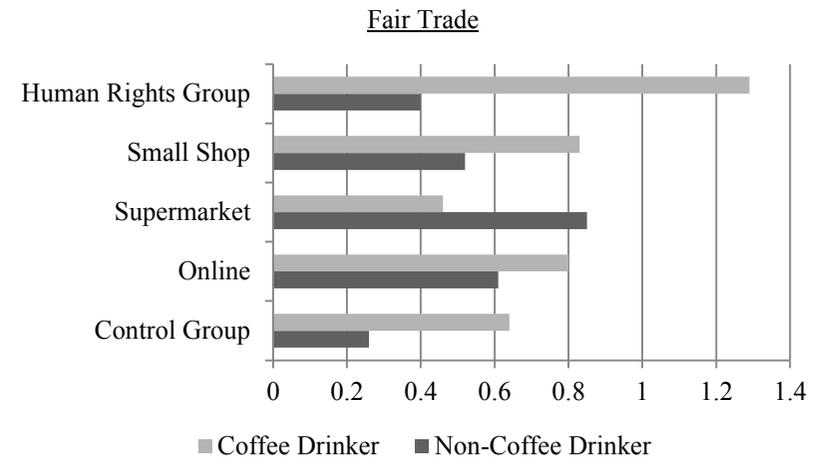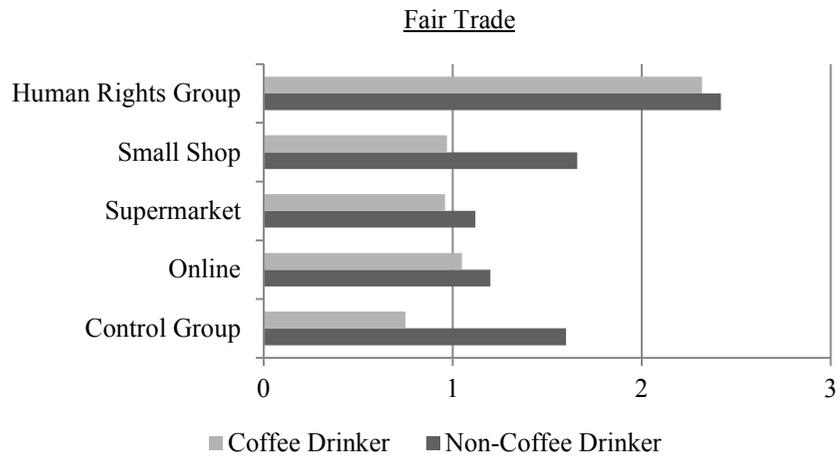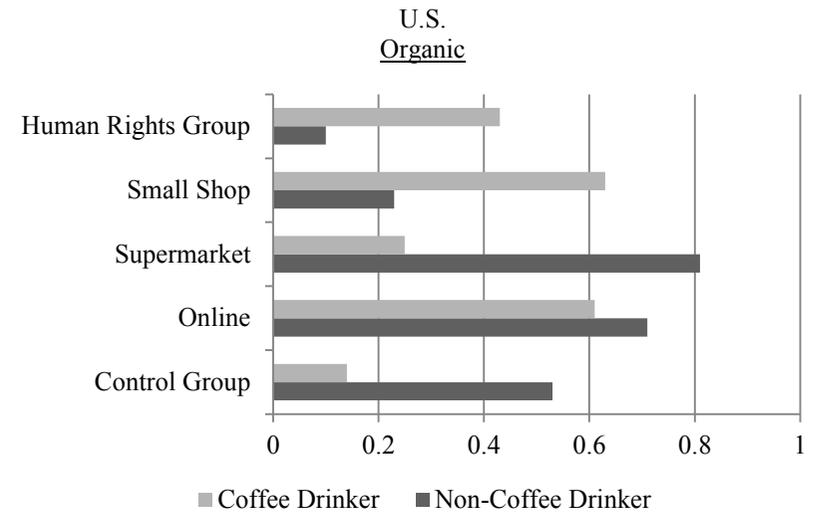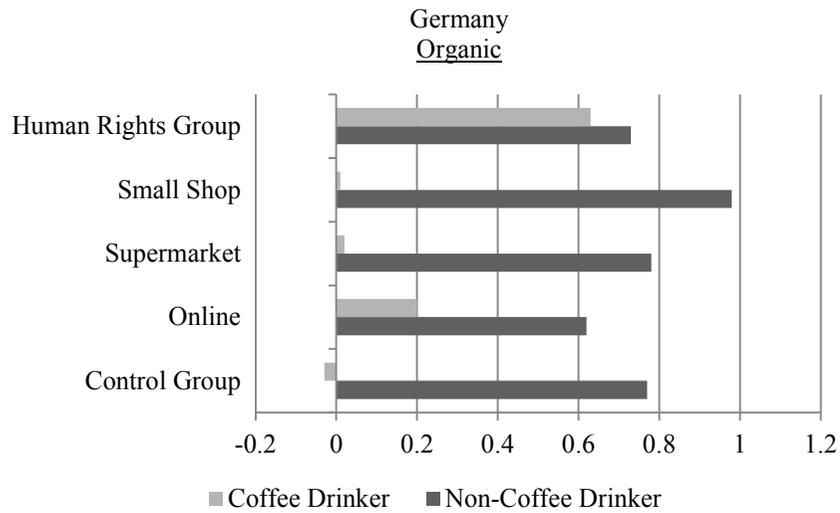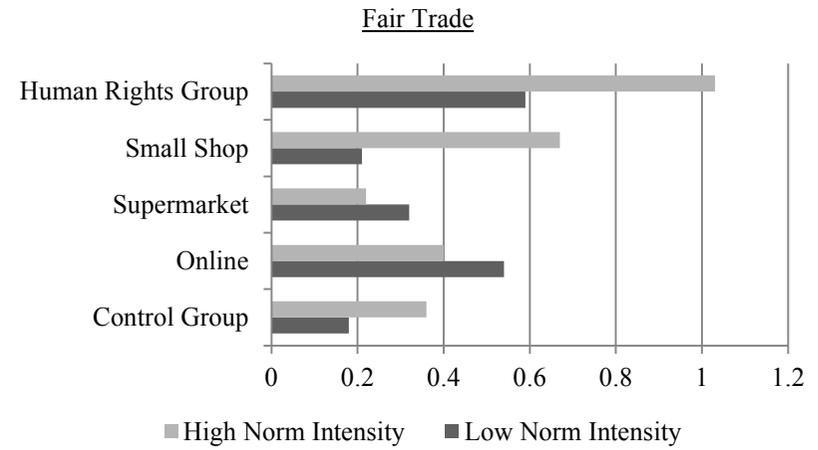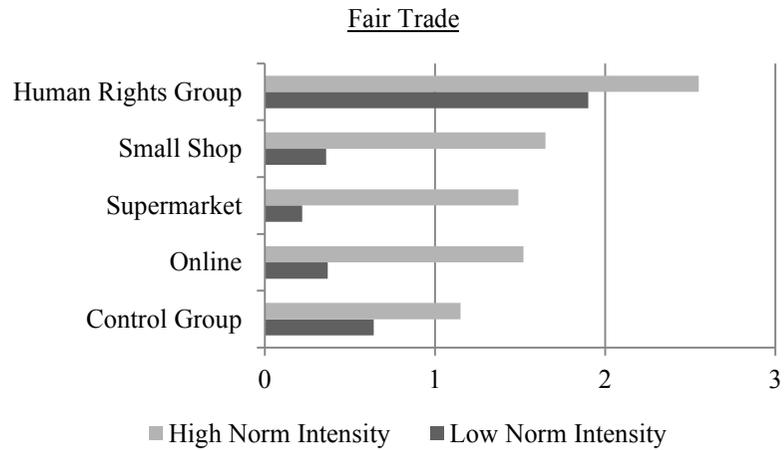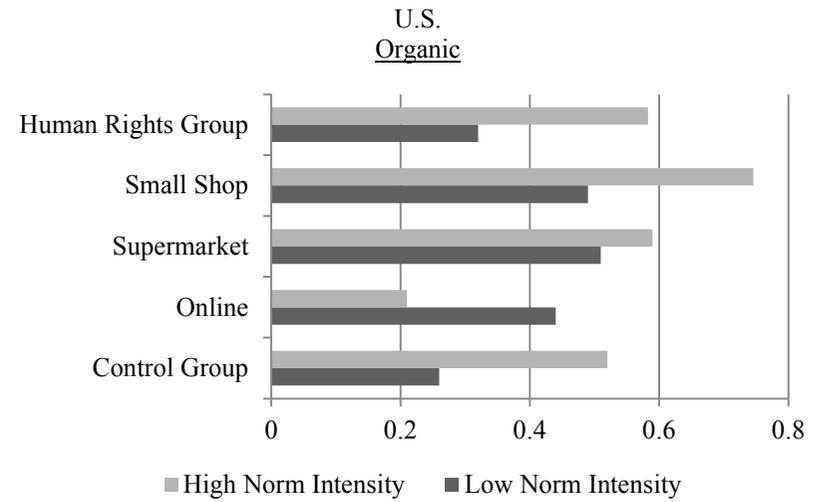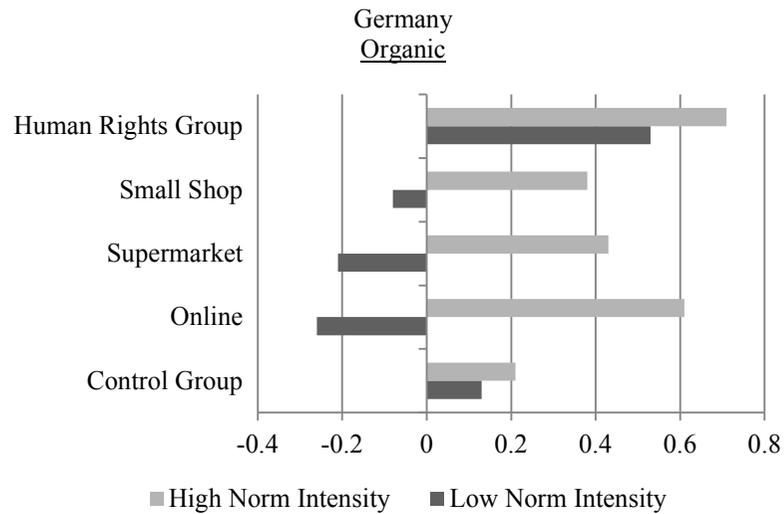
Figure 6: Coefficients of Error Component Logit Models for Subjective Norm per Country, Ethical Product Attribute and Social Context

Interestingly, irrespective of subjective norm intensity the treatment "human rights group" can induce ethical consumption behavior in both groups. In other words, this social context has a normative power that, to some extent, balances differences of respondents' perceived social norms with regard to ethical consumption. For the other social contexts, ethical behavior can only be found if a social norm is already present.

In the U.S., respondents with low norm intensity as well as with high norm intensity state a positive preference for both organic production and Fair Trade. Similar to the German data, there are upward shifts for both attributes in the group of respondents who perceive social rewards from their reference group for ethical consumption behavior. Our proposition is not supported for organic production because respondents with low and high norm intensity alike value organic coffee less positively in the context of a "human rights group" than in the context of a "small shop". Yet, in accordance with the German data, we see a positive context effect of the "human rights group" for Fair Trade for respondents with low norm intensity and respondents with high norm intensity. This context shows the largest coefficient values. This supports our argument that a social context with very low anonymity and very high social control can induce ethical consumption behavior even for individuals who do not expect social rewards from their reference group; or, to put it in another way, for those who do not perceive a subjective social norm concerning Fair Trade purchases in their everyday life.

7.3 Marginal Willingness to Pay

So far we have seen remarkable effects of social contexts and effects of heterogeneity at the level of utility functions. We continue by presenting substitution patterns, that is, MWTP values derived from the error component logit models. First, MWTP values for the attributes organic and Fair Trade in the control group and four treatment groups regarding social contexts are reported. Second, we compare MWTP values for each group: women and men, non-coffee drinkers and coffee drinkers as well as individuals with low and high subjective norm intensity, and each time we compare values in the control group with values in the treatment "human rights group." The reason is that with respect to social context and utility parameters we see strong effects as well as a clear pattern of effects in the human rights group context only. These differences are expected to translate into differences in MWTP.

Figure 7: Significant Willingness-to-Pay Estimates with 95% CI per Country, Ethical Product Attribute and Social Context

Germany (Euro)

U.S. (Dollar)

■ Organic ▲ Fair Trade
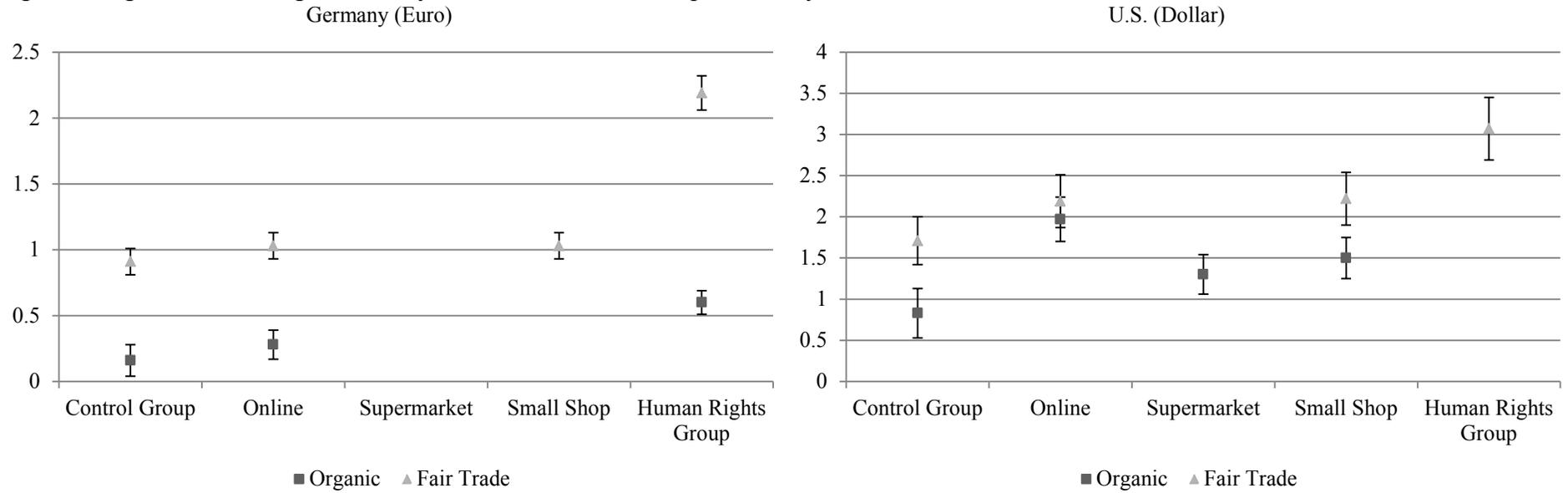
Basic Model with Social Context Effects. Figure 7 reports MWTP estimates and 95% confidence intervals based on the basic estimation models with regard to the four social contexts and the control group. In both the German and U.S. sample MWTP is remarkably higher for the ethical attribute Fair Trade compared to organic production. For example, in the control group of the German sample, on average, respondents are willing to pay a premium of 0.91 Euro if the coffee is Fair Trade and a lower premium of 0.16 Euro if the coffee is organic. In the U.S. sample the corresponding figures are 1.71 U.S. dollar and 0.83 U.S. dollar. The differences are statistically significant, which is indicated by the non-overlapping 95% confidence intervals for the control group and most treatment groups. Except for the attribute organic in the U.S. sample, the MWTP values in the social context "human rights group" support the assumption of context effects; they are significantly higher than in the control group and all other social contexts. For example, in the German sample and context of a "human rights group", on average, respondents are willing to pay a premium of 2.19 Euro if the coffee is Fair Trade. In the context "online" MWTP is 1.03 Euro. In the U.S. sample the MWTP is 3.07 U.S. dollar versus 2.19 U.S. dollar. Again, the 95% confidence intervals do not overlap.

Heterogeneity in Taste and Social Context Effects. In Figures 8, 9, and 10 we present MWTP values for preference heterogeneity in the control group and in the social context "human rights group" (for details, see Tables A3 and A4 in the appendix). The MWTP values not only show that subgroups have different stated preferences for ethical product attributes and that social context matters, but also that subgroups react differently to social context. Overall, in the German and U.S. sample we find higher values for Fair Trade in the human rights group context compared to the control group; with one exception this pattern is also present for the attribute organic.

Figure 8 shows that in both the German and U.S. sample, women have a significantly higher MWTP for both organic coffee and Fair Trade coffee (non- or slightly overlapping 95% confidence intervals). For example, in the social context "human rights group", they are willing to pay, on average, a premium of 0.74 Euro (men=0.43 Euro) and 1.28 U.S. dollar (men=0.60 U.S. dollar) for organic production and 2.48 Euro (men=1.94 Euro) and 3.52 U.S. dollar (men=2.71 U.S. dollar) for Fair Trade. Except for organic production and men respondents, women and men respondents alike have a significantly higher MWTP in the social context "human rights group" compared with the control group. For example, in the German sample women (men) respondents have, on average, a MWTP for Fair Trade of 2.48 Euro

(men=1.94 Euro) in the context "human rights group" and 0.91 Euro (men=0.78 Euro) in the control group.

Figure 9 shows that in the German sample, coffee drinkers have a lower MWTP for both organic and Fair Trade coffee than non-coffee drinkers. For example, in the control group coffee drinkers are willing to pay a premium of 0.71 Euro for Fair Trade coffee, and non-coffee drinkers are willing to pay 1.51 Euro. This difference is statistically significant which is indicated by the non-overlapping 95% confidence intervals. In the U.S. sample we find the opposite direction of effects, MWTP values tend to be higher for coffee drinkers compared to non-coffee drinkers. For example, in the control group coffee drinkers are willing to pay a premium of 1.93 U.S. dollar for Fair Trade coffee, and non-coffee drinkers are willing to pay 0.79 Euro. With regard to effects of social context, we see the same pattern in the German and U.S. data. Except for non-coffee drinkers and organic production, all other groups have a higher MWTP in the context "human rights group" compared with the control group and 95% confidence intervals do not overlap. For example, in the German and U.S. sample, coffee drinkers are willing to pay a premium of 2.20 Euro and 3.90 U.S. dollar for Fair Trade in the context "human rights group" compared with 0.71 Euro and 1.93 U.S. dollar in the control group.

MWTP values for heterogeneity regarding the subjective norm are presented in Figure 10. In the German and U.S. data alike, the group with high norm intensity has a higher MWTP for organic production and Fair Trade than the group with low norm intensity. Yet group differences are statistically significant for Fair Trade only (non-overlapping 95% confidence intervals); with one exception (i.e. context "human rights group" the U.S. data) 95% confidence intervals do largely overlap for organic production. However, in the German and U.S. sample, respondents with high norm intensity have, for example, a MWTP for Fair Trade of 2.40 Euro and 4.95 U.S. dollar in the context "human rights group"; the corresponding MWTP values for respondents with low norm intensity are 1.79 Euro and 1.76 U.S. dollar.

Figure 8: Willingness-to-Pay Estimates with 95% CI for Gender per Country, Ethical Product Attribute and Social Context

Germany (Euro)
Organic

U.S. (Dollar)
Organic

Fair Trade

Fair Trade
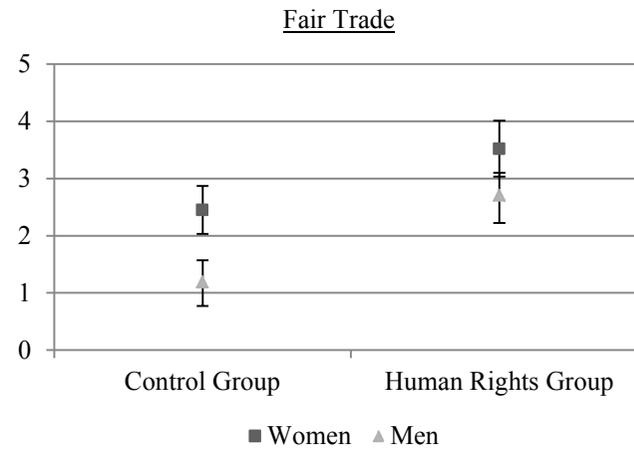
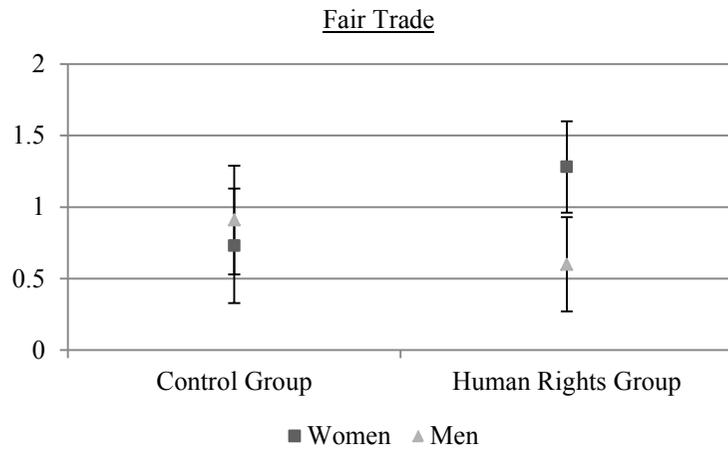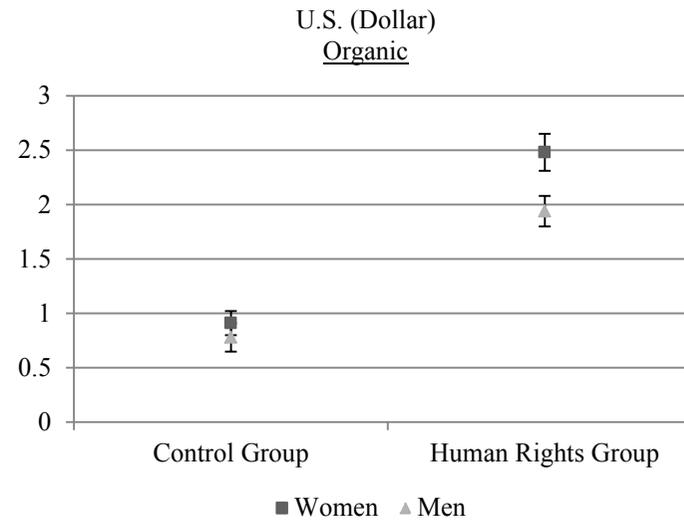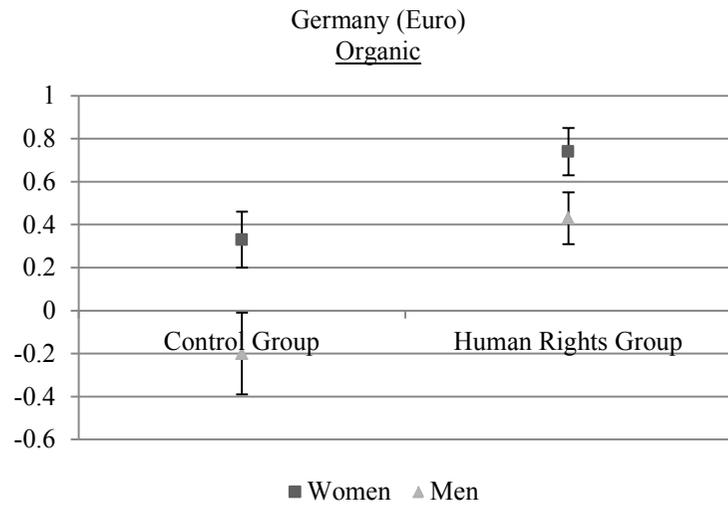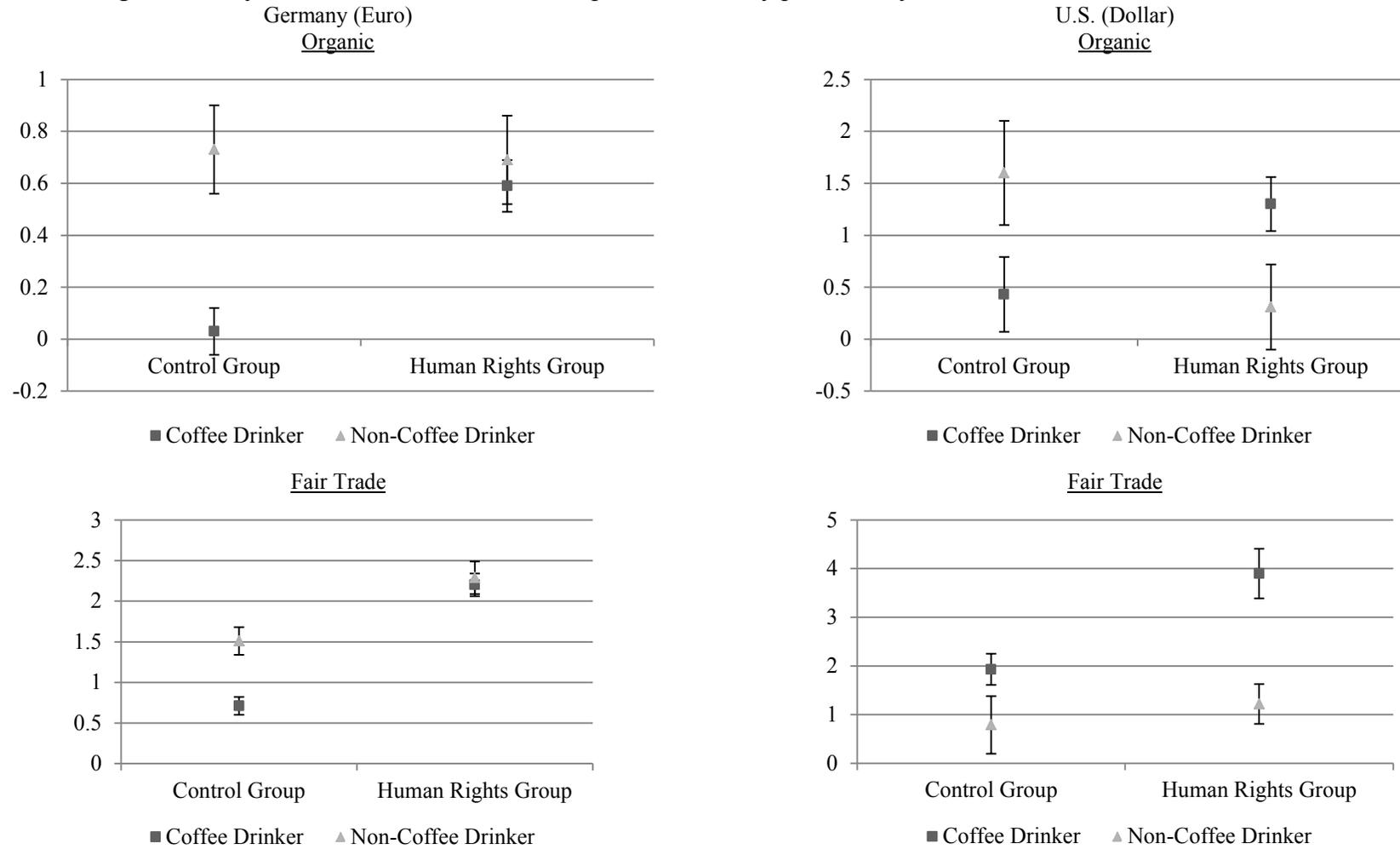Figure 9: Willingness-to-Pay Estimates with 95% CI for Experienced Utility per Country, Ethical Product Attribute and Social Context

Figure 10: Willingness-to-Pay Estimates with 95% CI for Subjective Norm per Country, Ethical Product Attribute and Social Context

Germany (Euro)
Organic

U.S. (Dollar)
Organic

■ High Norm Intensity   ▲ Low Norm Intensity

Fair Trade

■ High Norm Intensity   ▲ Low Norm Intensity
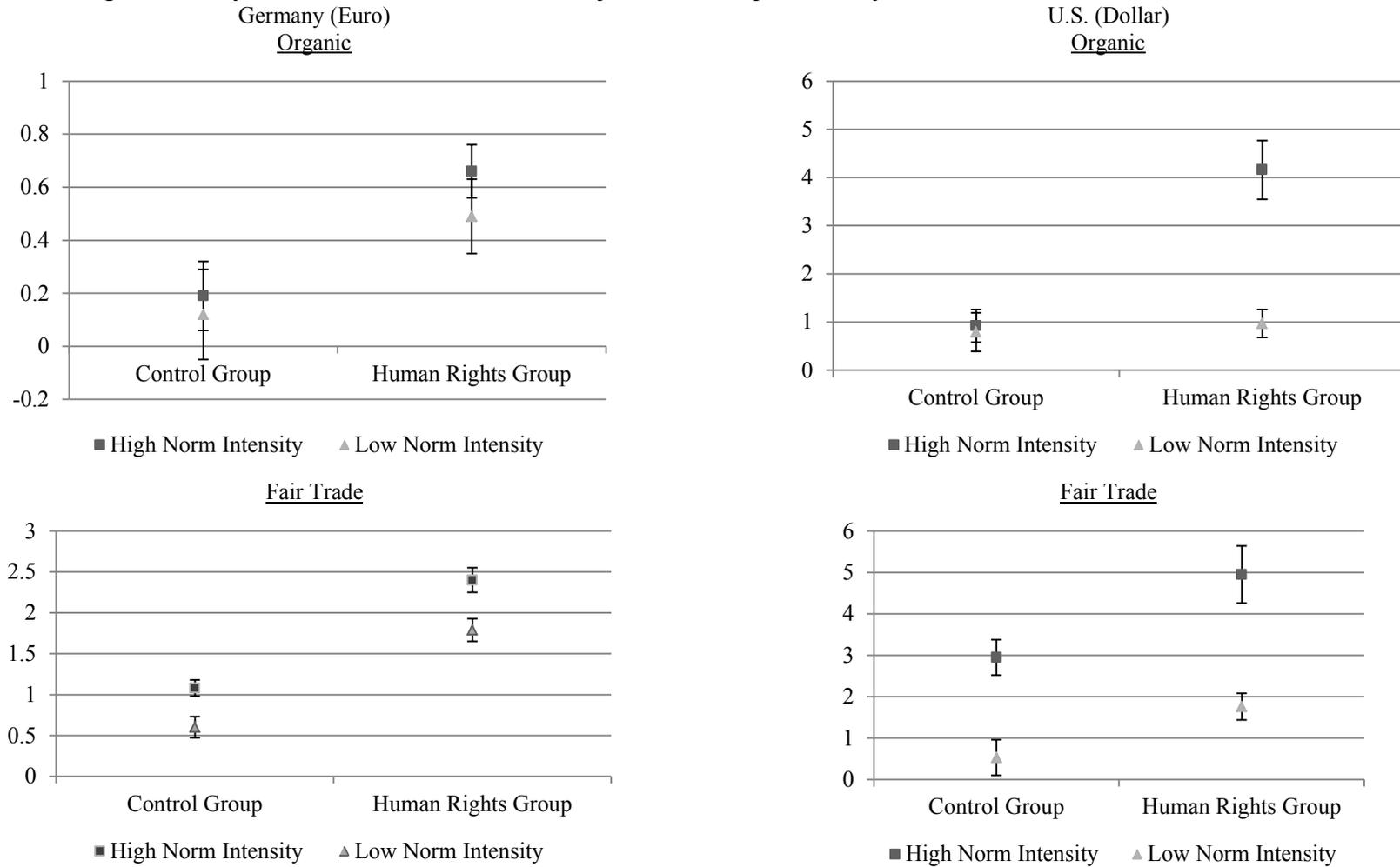
In the German and U.S. sample, respondents with low and high norm intensity have a remarkable higher MWTP for organic and Fair Trade in the context "human rights group" compared to the control group. All differences, except for the group with low norm intensity and organic production in the U.S sample, are statistically significant at the 5% level which is indicated by the non-overlapping 95% confidence interval. In terms of MWTP values, we find, for example, that respondents with low norm intensity have, on average, a MWTP for Fair Trade of 1.79 Euro (1.76 U.S. dollar) in the social context "human rights group" and 0.60 Euro (0.53 U.S. dollar) in the control group. For respondents with high norm intensity, the corresponding values are 2.40 Euro (4.95 U.S. dollar) in the context "human rights group" and 1.08 Euro (2.95 U.S. dollar) in the control group.

8. Discussion and Conclusion

The main objective of our study was to investigate how varying social contexts affect ethical consumer decision making. Combining two experimental approaches, a framing experiment and a DCE, enabled us to disentangle varying degrees of anonymity and social control in the buying situation while maintaining a context of realistic ethical decision-making trade-offs. Specifically, we randomly assigned respondents to four buying frames: purchasing coffee online, in a large grocery store, at a nearby convenience store, and to bring to a meeting of a human rights organization, plus a fifth no-frame group as control condition. The DCE required our subjects to make a series of decisions choosing between products' ethical attributes (organic production and Fair Trade) and other product attributes (taste and price). We introduced a method that can be considered more valid in measuring individuals' buying intention/behavior than simple opinion questions in surveys. In comparison with simple survey items, choice experiments mirror decision making more closely because subjects can choose between different alternatives, have to make trade-offs and also make repeated choices between consumer products instead of answering a "one-shot" question.

Our study yielded three main results: First, in both samples we find stable and strong social context effects for "human rights group" only. Second, subjects generally preferred Fair Trade over organic production. Third, we observed preference heterogeneity with regard to both ethical attributes.

At first glance it might not be surprising that the description of a social context with a very low level of anonymity and a very high level of social control can induce stated ethical

consumption decisions in a survey. It should be considered, however, that the normative ex-pectations that seemed to be triggered by the "human rights group" context are so strong that they can induce stated ethical consumer decisions also in a group of individuals with no or very low intensity of a subjective social norm. In other words, individuals who expect a low or no level of social rewards for their own ethical consumer decisions in everyday life also show a stronger preference for the ethical attribute in the social context "human rights group." Since the subjective norm was measured directly in the survey, our findings indicate that studies solely based on survey items tend to underestimate the role of social norms and social context for ethical consumer decisions. Our results also show that normative expecta-tions, or more generally social context, constitute a serious rival for altruistic concerns in the explanation of ethical consumption.

The lack of strong effects for the rather anonymous purchasing contexts with low so-cial control, namely "online shop" and "large grocery store," is not surprising, for compared to the control group, anonymous buying situations were not expected to induce ethical deci-sions. Further, the significant difference between these anonymous contexts and the context with high social control (that is, meeting of human right group) is consistent with framing effects.

The lack of strong effects for the context "nearby convenience store" may be because such shops less often carry organic and Fair Trade coffees, which could undercut the realism of this scenario in the framing experiment. The result is not likely to be associated with stu-dents' lack of familiarity with small shops in their neighborhoods, because many such shops can be found in the two university cities in Germany and U.S. where the study took place. Moreover, such shops tend to develop a regular clientele allowing for a certain amount of informal social control. On the other hand, such neighborhood oversight may be weakened by students' frequent mobility. Thus, we cannot disentangle whether the lack of effect is due to a lack of product or the weakness of social control.

It is explicitly or implicitly argued in the literature that ethical features of a product add up in value (Auger et al. 2003; Didier & Lucie 2008). While this is in principle supported in our study, our second major finding was that respondents in Germany and the U.S. priori-tize Fair Trade over organic production; this although the questionnaire did not contain any priming toward Fair Trade. The prioritization of Fair Trade over organic production is an important finding because both ethical attributes include different ethical features: Fair Trade comprises primarily social goals while organic production is assumed to have positive health and environmental effects; its benefits for workers are less pronounced. A stronger preference

for Fair Trade might be interpreted as some form of anthropocentric bias in ethical decision making, that is, people might prefer to improve the well-being of other human beings (for example, small-scale coffee farmers) rather than improve the quality of the natural environment (for example, positive effects on soil quality, soil resilience, soil fertility). This anthropocentric bias in ethical decision-making might outweigh egocentric motives such as perceived positive health effects derived from eating organic food.

Another explanation for prioritizing Fair Trade in ethical consumption might be warm glow giving (Andreoni 1989, 1990) or participation altruism (Margolis 1982). According to this perspective, altruistic behavior, irrespective of whether it is directed towards other human beings or environmental entities, is (partly) motivated by the personal/egoistic feeling of doing something good. Individuals purchase moral satisfaction (Kahneman & Knetsch 1992), which is an egoistic motive. An anthropocentric bias in ethical consumption is present if consumers derive more warm glow from behavior improving the situation of other human beings (for example, buying Fair Trade coffee or donating to prevent human catastrophes) than from improving the quality of the environment (for example, buying organic coffee or donating to prevent environmental catastrophes).

Third, we found preference heterogeneity with respect to both ethical attributes. It therefore seems necessary to take this heterogeneity into account when dealing with ethical consumption. Clearly, *the* ethical consumer does not exist, but groups of ethical consumers that differ in personal characteristics. Our study points to three characteristics that explain the observed heterogeneity partially: gender, coffee drinking, and subjective norm intensity. In the U.S. data, women, coffee drinkers and individuals with high subjective norm intensity show a stronger preference for Fair Trade coffee than men, non-coffee drinkers, and individuals with low norm intensity. The results for the German data point in the same direction with the exception of coffee drinkers having a weaker preference for Fair Trade coffee.

Our findings of heterogeneity are consistent with previous empirical research and arguments in the relevant literature. Women tend to have higher ethical concerns regarding the environment, including buying behaviors (Zelezny et al. 2000). One reason might be differences in gender roles in terms of household work, including buying groceries. The concept of experienced utility (Kahneman et al. 1997) suggests differences between individuals who are familiar with certain products compared to those who are not. Indeed, in our study coffee drinkers state different preferences than non-coffee drinkers. Furthermore, in our study subjective social norms, that is, whether a peer group perceives ethical consumption as positive, translates into corresponding decisions in the choice experiment. This supports the classical

hypothesis expecting a strong correlation between subjective norms toward a behavior and the intention to perform that behavior as well as to perform the behavior itself (Ajzen 1991).

The generalizability of our findings is limited by our use of student samples. Nonetheless, having demonstrated the importance of social context for ethical consumption in a specific population, future researchers can apply our experimental approach to a general population in order to identify other segments of ethical consumption.

In addition, the social contexts included in this study might be evaluated differently by other groups than students. Another limitation of our study is that we cannot completely rule out unintended "external" context effects. By conducting the survey during class, the presence of an experimenter might have triggered normative behavior (that is, higher levels of stated ethical consumption). However, with regard to the context effects it has to be stressed that every treatment and control group in our survey was affected by the same group of experimenters and the same survey situation.

Quantitative empirical studies such as the one presented in this paper should be complemented by in-depth qualitative studies (Shaw et al. 2006b; Shaw & Newholm 2002; Varul 2010). The latter can help to better *understand* the motivation behind ethical consumption. A key question is, for example, how individuals perceive normative expectations and how identity emerges in the context of ethical consumption. Studies that can discriminate between rival explanatory factors such as pure altruism, warm glow giving, personal norms, and identity are also needed. As this study shows, experimental approaches might be helpful to go a step further in this direction.

These limitations notwithstanding, our study demonstrates the great potential of DCEs for sociological research. Understanding and explaining the collective effects of social context on individuals' decisions, behaviors, and social action is at the core of sociology (Weber 1980b/1922). The macro-level patterns that interest sociologists typically result from millions of micro-level choices made by individuals among alternatives. Each of those alternatives are characterized by attributes and consequences that DCEs capture well. Factorial surveys parallel this insight by describing situations based on varying dimensions and having respondents evaluate the different situations on an ordinal or interval response scale (Wallander 2009). While this method has proved effective in studying, for example, the effect of situational factors on justice judgments (Jasso & Rossi 1977; Jasso 2006) and the character of norms (Jasso & Opp 1997), it does not mirror DCEs' ability to characterize the social context of individual decision making with respect to education, employment, migration, and family, for instance.

We are therefore convinced that sociological research in many areas would benefit from more frequent applications of choice experiments.

References

Adams, M. & J. Raisborough, 2008: What Can Sociology Say About FairTrade? Class, Reflexivity and Ethical Consumption. Sociology 42: 1165–1182.

Adams, M. & J. Raisborough, 2010: Making a Difference. Ethical Consumption and the Everyday. British Journal of Sociology 61: 256–274.

Ajzen, I., 1988: Attitudes, Personality, and Behavior. Milton Keynes: Open University Press.

Ajzen, I., 1991: The Theory of Planned Behavior. Organizational Behavior and Human Decision Processes 50: 179–211.

Alfnes, F. & K. Rickertsen, 2011: Nonmarket Valuation: Experimental Methods in: J.L. Lusk, J. Roosen & J. Shogren (Eds.), The Oxford Handbook of the Economics of Food Consumption and Policy: Oxford University Press.

Andorfer, V.A. & U. Liebe, 2012: Research on Fair Trade Consumption—A Review. Journal of Business Ethics 106: 415–435.

Andreoni, J., 1989: Giving with Impure Altruism. Applications to Charity and Ricardian Equivalence. Journal of Political Economy 97: 1447–1458.

Andreoni, J., 1990: Impure Altruism and Donations to Public Goods. A Theory of Warm Glow Giving. The Economic Journal 100: 464–477.

Asch, S.E., 1956: Studies of Independence and Conformity: A Minority of One Against a Unanimous Majority. Psychological Monographs: General and Applied 70: 1–70.

Auger, P., P. Burke, T. Devinney & J. Louviere, 2003: What Will Consumers Pay for Social Product Features? Journal of Business Ethics 42: 281–304.

Bargh, J.A., M. Chen & L. Burrows, 1996: Automaticity of Social Behavior: Direct Effects of Trait Construct and Stereotype Activation on Action. Journal of Personality and Social Psychology 71: 230.

Bateson, M.a.N.D.a.R.G., 2006: Cues of being watched enhance cooperation in a real-world setting. Biology Letters 2: 412–414.

Bennett, J. & R.K. Blamey, 2001: The Choice Modelling Approach to Environmental Valuation: Edward Elgar Publishing.

Black, D., 1983: Crime as Social Control. American Sociological Review: 34–45.

Bliemer, M.C.J. & J.M. Rose, 2009: Efficiency and Sample Size Requirements for Stated Choice Experiments. Transportation Research Board.

Bourdieu, P., 1984: Distinction. A Social Critique of the Judgement of Taste. London: Routledge and Kegan Paul.

Brauer, M. & P. Chekroun, 2005: The Relationship between Perceived Violation of Social Norms and Social Control: Situational Factors Influencing the Reaction to Deviance. Journal of Applied Social Psychology 35: 1519–1539.

Brines, J., 1994: Economic Dependency, Gender, and the Division of Labor at Home. American Journal of Sociology: 652–688.

Buskens, V.a.W.J., 2000: An Experiment on the Effects of Embeddedness in Trust Situations. Buying a used car. Rationality and Society 12: 227–253.

Camerer, C., 2003: Behavioral Game Theory. Experiments in Strategic Interaction. Princeton: Princeton University Press.

Carlsson, F., J. Garcia & A. Lofgren, 2010: Conformity and the Demand for Environmental Goods. Environmental & Resource Economics 47: 407–421.

Chekroun, P. & M. Brauer, 2002: The Bystander Effect and Social Control Behavior: The Effect of the Presence of Others on People's Reactions to Norm Violations. European Journal of Social Psychology 32: 853–867.

Cialdini, R.B. & N.J. Goldstein, 2004: Social Influence: Compliance and Conformity. Annual Review of Psychology 55: 591–621.

Clarke, N., 2008: From Ethical Consumerism to Political Consumption. Geography Compass 2: 1870–1884.

Coleman, J.S., 1990: Foundations of Social Theory. New York: Belknap Press.

Cranfield, J., S. Henson, J. Northey & O. Masakure, 2010: An Assessment of Consumer Preference for Fair Trade Coffee in Toronto and Vancouver. Agribusiness 26: 307–325.

Darley, J.M. & B. Latane, 1970: Norms and Normative Behavior: Field Studies of Social Interdependence. S. 83–102 in: J. Macaulay & L. Berkowitz (Eds.), Altruism and Jelping Behavior. Social Psychological Studies of Some Antecedents and Consequences. New York: Academic Press.

Darley, J.M. & B. Latené, 1968: Bystander Intervention in Emergencies. Diffusion of Responsibility. Journal of Personality and Social Psychology 8: 377–383.

Dean, M., M.M. Raats & R. Shepherd, 2008: Moral Concerns and Consumer Choice of Fresh and Processed Organic Foods. Journal of Applied Social Psychology 38: 2088–2107.

Didier, T. & S. Lucie, 2008: Measuring Consumer's Willingness to Pay for Organic and Fair Trade Products. International Journal of Consumer Studies 32: 479–490.

Dietz, T., P.C. Stern & G.A. Guagnano, 1998: Social Structural and Social Psychological Bases of Environmental Concern. Environment and Behavior 30: 450–471.

Dillman, D.A., J.D. Smyth & L.M. Christian, 2009: Internet, Mail, and Mixed-Mode Surveys. The Tailored Design Method. Hoboken, NJ: Wiley.

Eckel, C. & P. Grossman, 1996: Altruism in Anonymous Dictator Games. Games and Economic Behavior 16: 181–191.

Falk, A. & U. Fischbacher, 2006: A theory of reciprocity. Games and Economic Behavior 54: 293–315.

FAO, 2009: The Market for Organic and Fair-Trade Coffee. Rome.

Franzen, A. & S. Pointner, 2012: Anonymity in the Dictator Game Revisited. Journal of Economic Behavior & Organization 81: 74–81.

Freeman, S., M.R. Walker, R. Borden & B. Latane, 1975: Diffusion of Responsibility and Restaurant Tipping: Cheaper by the Bunch. Personality and Social Psychology Bulletin 1: 584–587.

Friedman, M., 1996: A Positive Approach to Organized Consumer Action. The "Buycott" as an Alternative to the Boycott. Journal of Consumer Policy 19: 439–451.

Garcia, S.M., K. Weaver, G.B. Moskowitz & J.M. Darley, 2002: Crowded Minds: The Implicit Bystander Effect. Journal of Personality and Social Psychology 83: 843–853.

Greenbaum, A., 1995: Taking Stock of Two Decades of Research on the Social Bases of Environmental Concern. S. 125–152 in: M.D. Mehta & É. Ouellet (Eds.), Environmental Sociology. Theory and Practice. North York, Ontario: Captus Press.

Gwartney, P.A., 2007: The Telephone Interviewer's Handbook: How to Conduct Standardized Conversations. San Francisco: Wiley.

Hanley, N., R.E. Wright & V. Adamowicz, 1998: Using Choice Experiments to Value the Environment. Environmental and Resource Economics 11: 413–428.

Harbaugh, W.T., U. Mayr & D.R. Burghart, 2007: Neural Responses to Taxation and Voluntary Giving Reveal Motives for Charitable Donations. Science 316: 1622–1625.

Harrison, R., T. Newholm & D. Shaw (Hrsg.), 2007: The Ethical Consumer. London: Sage.

Hechter, M. & K.-D. Opp, 2001: Social Norms. New York: Russell Sage Foundation.

Hensher, D.A., S. Jones & W.H. Greene, 2007: An Error Component Logit Analysis of Corporate Bankruptcy and Insolvency Risk in Australia. Economic Record 83: 86–103.

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

Hoffman, E., K. McCabe, K. Shachat & V. Smith, 1994: Preferences, Property Rights, and Anonymity in Bargaining Games. Games and Economic Behavior 7: 346–380.

Hoffman, E., K. McCabe & V.L. Smith, 1996: Social distance and other-regarding behavior in dictator games. The American Economic Review 86: 653–660.

Jaeger, S.R. & J.M. Rose, 2008: Stated choice experimentation, contextual influences and food choice. A case study. Food Quality and Preference 19: 539–564.

Janowitz, M., 1975: Sociological Theory and Social Control. American Journal of Sociology 81: 82–108.

Jasso, G., 2006: Factorial-Survey Methods for Studying Beliefs and Judgements. Sociological Methods and Research 34: 334–423.

Jasso, G. & K.-D. Opp, 1997: Probing the Character of Norms. A Factorial Survey Analysis of the Norms of Political Action. American Sociological Review 62: 947–964.

Jasso, G. & P.H. Rossi, 1977: Distributive Justice and Earned Income. American Sociological Review 42: 639–651.

Johnston, J., 2008: The Citizen-Consumer Hybrid: Ideological Tensions and the Case of Whole Foods Market. Theory and Society 37: 229–270.

Johnston, J., M. Szabo & A. Rodney, 2011: Good Food, Good People: Understanding the Cultural Repertoire of Ethical Eating. Journal of Consumer Culture 11: 293–318.

Kahneman, D. & J.L. Knetsch, 1992: Valuing Public Goods. The Purchase of Moral Satisfaction. Journal of Environmental Economics and Management 22: 57–70.

Kahneman, D. & R.H. Thaler, 2006: Anomalies: Utility Maximization and Experienced Utility. The Journal of Economic Perspectives 20: 221–234.

Kahneman, D., P.P. Wakker & R. Sarin, 1997: Back to Bentham? Explorations of Experienced Utility. The Quarterly Journal of Economics 112: 375–406.

Koos, S., 2011: Varieties of Environmental Labelling, Market Structures, and Sustainable Consumption Across Europe: A Comparative Analysis of Organizational and Market Supply Determinants of Environmental-Labelled Goods. Journal of Consumer Policy 34: 127–151.

Koos, S., 2012: What Drives Political Consumption in Europe? A Multi-Level Analysis on Individual Characteristics, Opportunity Structures and Globalization. Acta Sociologica 55: 37–57.

Krinsky, I. & A.L. Robb, 1986: On Approximating the Statistical Properties of Elasticities. The Review of Economics and Statistics: 715–719.

Lancaster, K.J., 1966: A New Approach to Consumer Theory. The Journal of Political Economy 74: 132–157.

Lewis, T. & E. Potter (Hrsg.), 2011: Ethical Consumption. A Critical Introduction. New York, NY: Routledge.

Liebe, U., P. Preisendörfer & J. Meyerhoff, 2011: To pay or not to pay: Competing theories to explain individuals' willingness to pay for public environmental goods. Environment and Behavior 43: 106–130.

Liska, A.E., 1997: Modeling the Relationships between Macro Forms of Social Control. Annual Review of Sociology: 39–61.

List, J.A., 2007: On the Interpretation of Giving in Dictator Games. Journal of Political Economy 115: 482–493.

Louviere, J.J., T.N. Flynn & R.T. Carson, 2010: Discrete Choice Experiments Are Not Conjoint Analysis. Journal of Choice Modelling 3: 57–72.

Louviere, J.J., D.A. Hensher & J.D. Swait, 2000: Stated Choice Methods: Analysis and Applications. Cambridge: Cambridge University Press.

Margolis, H., 1982: Selfishness, Altruism, and Rationality. A Theory of Social Choice. Chicago: Univ. of Chicago Press.

McFadden, D., 1974: Conditional Logit Analysis of Qualitative Choice Behavior. S. 105–142 in: P. Zarembka (Ed.), Frontiers in Econometrics. New York: Academic Press.

Mead, G.H., 1925: The Genesis of the Self and Social Control. International Journal of Ethics 35: 251–277.

Meier, R.F., 1982: Perspectives on the Concept of Social Control. Annual Review of Sociology 8: 35–55.

Milgram, S., L. Bickman & L. Berkowitz, 1969: Note on the Drawing Power of Crowds of Different Size. Journal of Personality and Social Psychology 13: 79–82.

Nolan, J.M., P.W. Schultz, R.B. Cialdini, N.J. Goldstein & V. Griskevicius, 2008: Normative Social Influence is Underdetected. Personality and Social Psychology Bulletin 34: 913–923.

Opp, K.-D., 1999: Contending Conceptions of the Theory of Rational Action. Journal of Theoretical Politics 11: 171–202.

Ostrom, E., 1990: Governing the Commons. Cambridge, UK: Cambridge University Press.

Ozcaglar-Toulouse, N., E. Shiu & D. Shaw, 2006: In Search of Fair Trade. Ethical Consumer Decision Making in France. International Journal of Consumer Studies 30: 502–514.

Papaoikonomou, E., G. Ryan & M. Valverde, 2011: Mapping Ethical Consumer Behavior: Integrating the Empirical Research and Identifying Future Directions. Ethics & Behavior 21: 197–221.

Reiss, A.J., 1951: Delinquency as the Failure of Personal and Social Controls. American Sociological Review 16: 196–207.

Ryan, M., K. Gerard & M. Amaya-Amaya, 2008: Using Discrete Choice Experiments to Value Health and Health Care. Dordrecht: Springer.

Scarpa, R., S. Ferrini & K. Willis, 2005: Performance of Error Component Models for Status-quo Effects in Choice Experiments. S. 247–273 in: R. Scarpa & A. Alberini (Eds.), Applications of Simulation Methods in Environmental and Resource Economics. Dordrecht: Springer.

Shaw, D. & T. Newholm, 2002: Voluntary Simplicity and the Ethics of Consumption. Psychology & Marketing 19: 167–185.

Shaw, D., T. Newholm & R. Dickinson, 2006: Consumption as Voting. An Exploration of Consumer Empowerment. European Journal of Marketing 40: 1049–1067.

Sherif, M., 1936: The Psychology of Social Norms. New York: Harper.

Slovic, P., M.L. Finucane, E. Peters & D.G. MacGregor, 2004: Risk as Analysis and Risk as Feelings. Some Thoughts about Affect, Reason, Risk, and Rationality. Risk Analysis 24: 311–322.

Stern, P.C., T. Dietz & L. Kalof, 1993: Value Orientations, Gender, and Environmental Concern. Environment and Behavior 25: 322–348.

Sunderer, G. & J. Rössel, 2012: Morality or Economic Interest? The Impact of Moral Motives and Economic Factors on the Purchase of Fair Trade Groceries. International Journal of Consumer Studies 36: 244–250.

Thøgersen, J., 2010: Country Differences in Sustainable Consumption: The Case of Organic Food. Journal of Macromarketing 30: 171–185.

Tourangeau, R., L.J. Rips & R. Kenneth, 2000: The Psychology of Survey Response: Cambridge: Cambridge University Press.

Train, K., 2009: Discrete Choice Methods with Simulations. Cambridge: Cambridge University Press.

TransFair, 2012: Jahresbericht 2011. http://www.fairtrade-deutschland.de/fileadmin /user_upload/materialien/download/2012_Jahresbericht_2011_2012.pdf (21.6.2012).

Tversky, A. & D. Kahneman, 1981: The Framing of Decisions and the Psychology of Choice. Science 211: 453-358.

Tversky, A. & D. Kahneman, 1986: Rational Choice and the Framing of Decisions. Journal of business: 251–278.

Varul, M.Z., 2010: Ethical Consumption. The Case of Fair Trade. S. 366–385 in: J. Beckert & C. Deutschmann (Eds.), Wirtschaftssoziologie. Kölner Zeitschrift für Soziologie und Sozialpsychologie. Sonderheft 49. Wiesbaden: VS Verlag.

Veblen, T., 1899: The Theory of the Leisure Class. New York: Macmillan.

Wallander, L., 2009: 25 Years of Factorial Surveys in Sociology. A Review. Social Science Research 38: 505–520.

Weber, M., 1980/1922: Wirtschaft und Gesellschaft. Grundriss der verstehenden Soziologie. Tübingen: Mohr-Siebeck.

Zelezny, L.C., P.-P. Chua & C. Aldrich, 2000: New Ways of Thinking about Environmentalism: Elaborating on Gender Differences in Environmentalism. Journal of Social Issues 56: 443–457.

Table A1: Error Component Logit Models for Germany (unstandardized logit coefficients, z-values in parentheses)

	Basic model		Gender		Coffee Drinker		Subjective Norm	
	logit	(z-value)	logit	(z-value)	logit	(z-value)	logit	(z-value)
ASC_{Alt1}	-5.67***	(-18.20)	-5.67***	(-17.49)	-5.72***	(-17.04)	-5.72***	(-18.04)
ASC_{Alt2}	-5.73***	(-18.06)	-5.82***	(-17.33)	-5.78***	(-16.88)	-5.78***	(-17.86)
ASC_{Alt3}	-5.77***	(-18.46)	-5.86***	(-17.71)	-5.83***	(-17.29)	-5.83***	(-18.28)
Medium (reference=mild)	-0.23***	(-5.10)	-0.23***	(-5.10)	-0.24***	(-5.24)	-0.23***	(-4.93)
Dark (reference=mild)	-1.14***	(-29.44)	-1.15***	(-28.91)	-1.15***	(-17.29)	-1.14***	(-28.98)
Organic (reference=no)	0.16**	(2.36)	-0.21*	(2.30)	0.77***	(7.56)	0.13	(1.35)
Fair Trade (reference=no)	0.95***	(13.97)	0.81***	(9.90)	1.60***	(15.59)	0.64***	(7.64)
Price	-1.05***	(-23.49)	-1.05***	(-22.66)	-1.06***	(-22.67)	-1.06***	(-23.21)
Context effects			Men		Not Coffee Drinker		Low Subjective Norm	
Online*Organic	0.13*	(2.24)	0.14	(1.55)	-0.15	(-1.47)	-0.39***	(-3.51)
Supermarket*Organic	0.04	(0.59)	-0.03	(-0.25)	0.01	(0.06)	-0.34***	(-3.20)
Small Shop*Organic	0.02	(0.35)	0.01	(0.14)	0.21	(1.53)	-0.21*	(-2.01)
Human Rights Group*Organic	0.46***	(7.81)	0.67***	(7.01)	-0.04	(-0.33)	0.40***	(4.00)
Online*Fair Trade	0.12**	(2.34)	0.04	(0.52)	-0.40***	(-3.64)	-0.27***	(-2.71)
Supermarket*Fair Trade	0.04	(0.68)	-0.20*	(-2.27)	-0.48***	(-4.00)	-0.42***	(-4.57)
Small Shop*Fair Trade	0.13**	(2.34)	0.05	(0.55)	0.06	(0.41)	-0.28***	(-2.89)
Human Rights Group*Fair Trade	1.34***	(25.98)	1.21***	(15.70)	0.82***	(6.90)	1.26***	(15.15)
Group Effects			Women		Coffee Drinker		High Subjective Norm	
Group * Organic			0.56***	(6.09)	-0.80***	(-8.08)	0.08	(0.89)
Group *Fair Trade			0.14	(1.92)	-0.85***	(-8.99)	0.51***	(6.77)

Table A1 continued				
Group * Context Effect				
Group *Online*Organic		0.16 (1.32)	0.38*** (2.98)	0.79*** (5.97)
Group *Supermarket*Organic		0.14 (1.08)	0.04 (0.25)	0.56*** (4.28)
Group *Small Shop*Organic		0.07 (0.52)	-0.17 (-1.05)	0.38*** (2.87)
Group *Human Rights Group*Organic		-0.24* (-1.97)	0.70*** (5.08)	0.10 (0.82)
Group *Online*Fair Trade		0.30*** (2.79)	0.70*** (5.47)	0.64*** (5.27)
Group *Supermarket*Fair Trade		0.43*** (3.74)	0.69*** (5.08)	0.76*** (6.44)
Group *Small Shop*Fair Trade		0.16 (1.38)	0.16 (1.03)	0.78*** (6.34)
Group *Human Rights Group*Fair Trade		0.42*** (3.97)	0.75*** (5.68)	0.14 (1.30)
$E_{Alt1, Alt2, Alt3}$	3.23*** (19.31)	3.31*** (18.59)	3.41*** (19.67)	3.29*** (19.05)
Simulated LL	-6,928.65	-6,703.20	-6,848.80	-6,819.94
Pseudo-R	0.23	0.23	0.23	0.24
Obs.	25,920	25,248	25,776	25,920

Note: *$p < .05$; **$p < .01$; ***$p < .001$ (two-tailed tests).

Table A2: Error Component Logit Models for the U.S. (unstandardized logit coefficients, z-values in parentheses)

	Basic model logit (z-value)	Gender logit (z-value)	Coffee Drinker logit (z-value)	Subjective Norm logit (z-value)
ASC$_{Alt1}$	-5.26***(-11.34)	-5.19***(-11.02)	-5.28***(-11.32)	-5.26***(-11.36)
ASC$_{Alt2}$	-5.28***(-11.28)	-5.20***(-10.94)	-5.29***(-11.25)	-5.28***(-11.29)
ASC$_{Alt3}$	-5.32***(-11.40)	-5.25***(-11.07)	-5.34***(-11.38)	-5.32***(-11.43)
Medium (reference=mild)	0.36*** (7.71)	0.37*** (7.70)	0.35*** (7.53)	0.38***(7.89)
Dark (reference=mild)	-0.12***(-3.67)	-0.11***(-3.08)	-0.13***(-3.74)	-0.11***(-3.31)
Organic (reference=no)	0.27*** (4.19)	0.30*** (3.78)	0.53*** (5.45)	0.26*** (3.36)
Fair Trade (reference=no)	0.57*** (8.64)	0.38*** (5.11)	0.26** (2.43)	0.18* (2.18)
Price	-0.33***(-11.40)	-0.32***(-10.87)	-0.33***(-11.34)	-0.34***(-11.57)
Context effects		Men	Not Coffee Drinker	Low Subjective Norm
Online*Organic	0.38*** (8.64)	0.36*** (4.77)	0.18 (1.71)	0.18* (2.29)
Supermarket*Organic	0.16*** (3.11)	0.17** (2.33)	0.28** (2.58)	0.25*** (3.32)
Small Shop*Organic	0.22*** (4.22)	0.11 (1.36)	-0.30 (-2.82)	0.23** (2.79)
Human Rights Group*Organic	0.06 (1.22)	-0.10 (-1.43)	-0.43***(-4.27)	0.06 (0.89)
Online*Fair Trade	0.16*** (3.18)	0.40*** (5.28)	0.35** (2.76)	0.36*** (4.71)
Supermarket*Fair Trade	0.03 (0.68)	0.14 (1.83)	0.59*** (5.56)	0.14 (1.72)
Small Shop*Fair Trade	0.17*** (3.35)	0.20** (2.69)	0.26** (2.37)	0.03 (0.48)
Human Rights Group*Fair Trade	0.45*** (9.60)	0.49*** (6.89)	0.14 (1.34)	0.41*** (5.64)
Group Effects		Women	Coffee Drinker	High Subjective Norm
Group * Organic		-0.06 (-0.79)	-0.39***(-4.13)	0.26*** (3.36)
Group *Fair Trade		0.41*** (5.43)	0.38***(3.91)	0.18* (2.18)

Table A2 continued				
Group * Context Effect				
Group *Online*Organic		-0.04 (-0.32)	0.29* (2.32)	0.49*** (4.49)
Group *Supermarket*Organic		-0.03 (-0.24)	-0.17 (-1.40)	-0.18 (-1.75)
Group *Small Shop*Organic		0.17 (1.58)	0.79*** (6.31)	-0.004 (-0.04)
Group *Human Rights Group*Organic		0.28** (2.79)	0.72*** (6.20)	0.003 (0.04)
Group *Online*Fair Trade		-0.51***(-4.87)	-0.19 (-1.39)	-0.32***(-3.07)
Group *Supermarket*Fair Trade		-0.25** (-2.42)	-0.77***(-6.32)	-0.28** (-2.52)
Group *Small Shop*Fair Trade		-0.08 (-0.80)	-0.07 (-0.53)	0.28** (2.54)
Group *Human Rights Group*Fair Trade		-0.14 (-1.45)	0.51*** (4.21)	0.26** (2.53)
$E_{Alt1, Alt2, Alt3}$	4.35*** (15.23)	4.29*** (14.98)	4.30*** (15.18)	4.32*** (15.08)
Simulated LL	-7,166.78	-6,989.61	-7,069.38	-7,070.54
Pseudo-R	0.18	0.18	0.18	0.19
Obs.	25,104	24,480	24,864	25,104

Note: *$p < .05$; **$p < .01$; ***$p < .001$ (two-tailed tests).

Table A3: Marginal Willingness-to-Pay (WTP) Estimates by Attribute and Social Context, Germany and U.S.

	Control Group		Online		Supermarket		Small Shop		Human Rights Group	
	WTP	(95% CI)	WTP	(95% CI)	WTP	(95% CI)	WTP	(95% CI)	WTP	(95% CI)
Germany (in Euro)										
Organic	0.16	(0.04-0.28)	0.28	(0.17-0.39)		n.s.		n.s.	0.60	(0.51-0.69)
Fair Trade	0.91	(0.82-1.01)	1.03	(0.93-1.13)		n.s.	1.03	(0.93-1.13)	2.19	(2.06-2.32)
U.S. (in dollar)										
Organic	0.83	(0.53-1.12)	1.97	(1.70-2.23)	1.30	(1.06-1.54)	1.50	(1.25-1.75)		n.s.
Fair Trade	1.71	(1.42-2.01)	2.19	(1.87-2.51)		n.s.	2.22	(1.89-2.54)	3.07	(2.69-3.45)

Note: n.s. means the estimated coefficients are not statistically significant at the 5% level for organic or Fair Trade in Tables A1 and A2.

Table A4: Marginal Willingness-to-Pay (WTP) Estimates for the Social Context Control Group and Human Rights Group, Germany and U.S.

	Men		Women		Coffee, no		Coffee, yes		Norm, no		Norm, yes	
	WTP	(95% CI)	WTP	(95% CI)	WTP	(95% CI)	WTP	(95% CI)	WTP	(95% CI)	WTP	(95% CI)
Germany (in Euro)												
Organic												
Human Rights Group	0.43	(0.31-0.56)	0.74	(0.63-0.85)	0.69	(0.52-0.85)	0.59	(0.49-0.69)	0.49	(0.35-0.63)	0.66	(0.56-0.77)
Control Group	-0.20	(-0.39-0.02)	0.33	(0.20-0.47)	0.73	(0.56-0.89)	0.03	(-0.17-0.12)	0.12	(-0.05-0.29)	0.19	(0.06-0.32)
Fair Trade												
Human Rights Group	1.94	(1.80-2.08)	2.48	(2.31-2.65)	2.29	(2.09-2.49)	2.20	(2.06-2.33)	1.79	(1.65-1.93)	2.40	(2.25-2.55)
Control Group	0.78	(0.65-0.90)	0.91	(0.80-1.03)	1.51	(1.34-1.69)	0.71	(0.60-0.82)	0.60	(0.47-0.74)	1.08	(0.98-1.19)
U.S. (in dollar)												
Organic												
Human Rights Group	0.60	(0.27-0.94)	1.28	(0.96-1.60)	0.31	(-0.10-0.72)	1.30	(1.04-1.55)	0.97	(0.68-1.27)	4.16	(3.55-4.78)
Control Group	0.91	(0.53-1.31)	0.73	(0.33-1.12)	1.60	(1.10-2.11)	0.43	(0.07-0.79)	0.79	(0.39-1.18)	0.92	(0.58-1.27)
Fair Trade												
Human Rights Group	2.71	(2.29-3.12)	3.52	(3.03-4.02)	1.22	(0.81-1.64)	3.90	(3.39-4.42)	1.76	(1.44-2.09)	4.95	(4.26-5.65)
Control Group	1.19	(0.81-1.66)	2.45	(2.03-2.88)	0.79	(0.20-1.38)	1.93	(1.61-2.25)	0.53	(0.10-0.97)	2.95	(2.52-3.38)