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**The Willingness to Pay of European Consumers for Jointly  
Produced Israeli – Palestinian Products**

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# **The Willingness to Pay of European Consumers for Jointly Produced Israeli - Palestinian Products**

## **Abstract**

Ethical aspects of food products have become increasingly important for Western European consumers. One example of such ethical consumption attributes are “peace products”, commodities produced in peaceful economic cooperation between members of conflicting parties in areas of political conflict. In the context of the Israeli-Palestinian conflict, we investigate the willingness to pay of consumers from four European countries for two food products which are jointly produced by Israelis and Palestinians. We conduct a cross country web survey including a choice experiment addressed to the four European countries. Preference heterogeneity with regard to the willingness to pay for peace building products is taken into account by including survey questions on lifestyle factors, attitudes towards Israel, Palestine and the Israel-Palestinian conflict, personal and social norms as well as socio-demographics.

Using random parameter logit models we find that consumers in Great Britain and Germany are willing to pay a premium first off all for European products compared with products from Israel or the Palestinian Territories alone. The willingness to pay for Israeli/Palestinian peace products is lower compared to the surplus for European products. But the cooperation product is favored instead of a single county product, just from Israel or the Palestinian Territories. Hence, cooperation in the form of joint production of peace products would generate benefits.

**Keywords:** Choice experiments, ethical consumption, Middle East conflict, willingness to pay

**JEL:** D12, M14, O57, Q13, Z13

## 1. Introduction

Food consumption habits in Western Europe have changed during the last decades. While during the decades subsequent to the Second World War prospection for having enough food followed by mass consumption are the main consumption habits (Rossfeld 2009), nowadays different ethical product attributes, regarding food production, such as environmental friendliness, livestock friendliness or organic production, and fair trade relationships, gain considerable importance. The support of economic cooperation for the sake of fostering peaceful coexistence and mutual benefits despite the existence of fierce political conflicts also belongs to these attributes. In particular, commodities jointly produced by members of the hostile conflicting parties in order to enable social contact across the invisible borders erected by the conflict and to support reconciliation between the parties can be one option to attain the goal of peaceful cooperation. Thus, due to their peace building character, we term such products “peace products” or “peace brands”.

One of the oldest ongoing political conflicts is the Israeli-Palestinian conflict (see, e.g., Rotberg, 2006, for details). Alienation between Palestinians and Israelis has increased during the last decades due to waves of violence and resulting security measures which were implemented to control the security situation. Consequently, the separation of both parties has grown since previously existing social and economic contacts between them have been impeded as a result of the conflict. This has led to a political environment which complicates reconciliation. One area in which intensive economic contacts existed was agricultural production which, for this reason, is likely to contain potential for future peaceful cooperation. We hence aim to assess the willingness to pay of European consumers for food commodities originating from joint Israeli-Palestinian production. While we will not elaborate on the practical design of such cooperation for mutual benefit, we focus on the marketing potential of peace products which might be one way to create economic incentives for peaceful cooperation beyond the current political conflict. Furthermore, such cooperation could create disincentives for violent confrontation as discussed by Sayre (2009). Hence, we focus on peace brands products which are produced in cooperation between Israeli and Palestinians.<sup>1</sup> Ideally, both parties benefit equally from the sale of such products. The additional income thereby generated could be used to promote joint social projects between Israelis and Palestinians.

This study aims at analyzing the support of consumers in France (FRA), Germany (GER), Great Britain (GBR) and Poland (POL) for such products of peace-enhancing economic cooperation between Israelis and Palestinians, expressed by their willingness to pay (WTP) for “peace brands”. We compare the WTP estimates of consumers in four countries to each other since we hypothesize that support might depend on the dominating national socio-economic and historical context.

The contribution of this research to the literature is threefold. First, we conduct a cross country study for ethical consumption attributes while, most often, analyses of ethical

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<sup>1</sup> Partly, such kinds of products already exist as in the case of olive oil, e.g. Peace Oil-a joint Project of Israelis & Palestinians (see [www.peaceoil.net](http://www.peaceoil.net)).

consumption focus on single countries. Second, we study the influence of consumers' anti-Arabism and anti-Semitism and their opinions about the Israeli/Palestinian conflict on their WTP for peace products from the region. Third, results which we get from the study could be used as a basis for the parties of the Israeli-Palestinian conflict to create arrangements of social contact and economic collaboration which are beneficial for both sides and might contribute to peaceful coexistence and cooperation.

In the following a review of the existing literature concerning ethical consumption and WTP analyses for fair trade products is provided and the motivation for the chosen countries is elaborated upon. The theoretical framework is the choice experiment. The construction of the choice experiment and the questionnaire is subsequently explained in the methodology part. Since data gathering is currently in progress, we only provide first results from the choice experiment for Great Britain and Germany. Effects of other variables, like socio-economic, anti-Semitism and so on are not included.

## **2. Background**

Peace brands can be considered as a commodity for which consumers explicitly make ethical or political consumption decisions. Over the past decades, political consumerism in the US and Europe has become a wide-spread phenomenon (Stolle et al. 2010). The term 'ethical consumerism' describes the occurrence of individuals trying to influence ongoing political or ethical practices or market circumstances according to their own beliefs by buying or avoiding certain commodities or producers (Stolle et al. 2010; Solomon et al. 2006). In the context of peace brands, consumers might wish to create economic incentives for cooperation of some members of the conflicting parties through their purchases. They might furthermore desire to set an explicit sign of the desire for peaceful coexistence which might be the case in particular for the Israeli-Palestinian conflict. Therefore, the market can operate as a pull factor for human rights or international understanding (Micheletti and Follesdal 2007). The offer of such political products might sensitize consumers to the responsibility and the political power they can exert through their consumption choices (ibid).

As mentioned before, consumers can express "material support" or denial for certain contexts or political directions through their purchase of products which have certain ethical attributes. In 2001, for example, there was a widespread boycott initiated by parts of the British population against Israeli goods and services with the goal of stopping trade with Israel and to end European Union and British government trade agreements with Israel (Loddo 2005). Hence, from a scientific perspective, one might be interested in measuring how much consumers would be willing to pay for the support of their ethical attitudes. Consequently, extensive research on the WTP for ethical products has been carried out in recent years. Most often, WTP analyses of ethical product attributes focus on locally, organic or environmentally friendly produced commodities, on fair trade or on animal welfare aspects while we are interested in the monetary expression of the wish for peaceful coexistence. We furthermore account for the heterogeneity of the cultural background of respondents regarding the Israeli-Palestinian conflict by performing a cross-country analysis of ethical consumerism and regard four European countries: France, Germany, Great Britain and Poland.

The context of jointly produced Israeli-Palestinian food commodities is related to commodities labeled as fair trade or fairly produced. Several studies have found that consumers are indeed willing to pay a premium for the fair trade attribute. De Pelsmacker et al. (2005) estimated that in their study of Belgian University employees the respondents are willing to pay 10% more on average for fair trade coffee. Loureiro and Lotade (2005) quantified that U.S. consumers are willing to pay a premium of 0.22US\$ per pound fair trade coffee, corresponding to more than 3% of the price of regular coffee. Rousu and Corrigan (2008) measured a 10% and 20% premium paid by U.S. consumers in Pennsylvania for the attribute of fairly traded bananas and chocolate, respectively. Auger et al (2003) measured in their study that consumers in Hong Kong and Australia would support different fair product attitudes, such as acceptable living conditions, minimum wages, child labor and dangerous working conditions, to a different extent. In their case, the chosen product were athletic shoes. It was found that to avoid child labor and dangerous working conditions, respondents were willing to pay between US \$0.28-US \$84.73 and US\$0.03- US\$121.44 respectively. Acceptable living conditions and minimum wages were ranked lower in terms of importance.

We expect that European consumers will be willing to pay more for Israeli/ Palestinian peace products than for products from Israel or Palestine alone. We also expect that this additional willingness to pay will differ between European countries, as participation in ethical consumption has been found to differ between countries. For example, Stolle et al. (2005) surveyed a sample of 1015 students in Canada, Belgium and Sweden concerning their degree of ethical consumerism and further political participation. Swedish students were found to be much more ethical orientated consumers than Belgian or Canadian students, for example. Female students from Sweden appear to have a distinctly politically motivated shopping behavior. The typical ethical consumer might exhibit particular characteristics which are also likely to apply to consumers of peace brands. For Example in the study of Stolle et al. 2005 the typical ethical consumer is characterized as being female, having a distinct societal and political knowledge accompanied by positive attitudes regarding ethical products. The Fair trade consumers by Nijssen and Douglas 2008 are more cosmopolitan and interested in global politics than non fair trade buyers (see also Goig 2007; De Pelsmacker et al. 2006). However, some studies find that ethical shopping behavior is found not to be influenced by socio-demographic variables. Sikula and Costa 1994 for example found that there are no big differences between male and female ethical opinions. We also think that there will be a difference in WTP between the European countries since attitudes of the populations of the countries differ with respect to support or criticism of Israel and the Palestinians, the perception of the Israeli-Palestinian conflict, as well as to the national historical backgrounds and anti-Semitic or anti-Arabic attitudes. The attitudes are often influenced by ethical or religious prejudices towards the involved parties which are historically and culturally rooted in differing ways in different societies. Moreover, political attitudes towards the conflict and prejudices interact with each other.

### 3. Theory and Methods

#### 3.1 Theoretical Determinants of the Willingness to Pay

The willingness of European consumers to pay for joint Israeli-Palestinian peace products can be affected by several theoretical determinants (see Meyer and Liebe 2011, Liebe et al. 2011 for theoretical approaches). Table 1 gives an overview of factor blocks and variables which can have an influence in the given context. First, given that preferences for peace brands are identical, individuals with a higher income can afford to pay more than individuals with a lower income. Thus, income should have a positive effect on WTP. Other determinants such as gender, age, education and political orientation shall be considered as control variables. The empirical question to be answered in this aspect is whether these variables have a positive or negative effect on WTP or whether they affect WTP at all.

**Table 1: Determinants of Willingness to Pay for Peace Brands**

<b>Factor blocks</b>	<b>Variables</b>
Socio-demographics	Gender; age; education, household size; income; religiosity; political orientation
Attitudes towards the Israeli-Palestinian conflict	Anti-Semitism; anti-Arabism; anti-Zionism, hostility against Palestinian territories; perception of Israeli-Palestinian conflict
Norm-related factors	Personal norms, social norms
Values	Consumer values, cooking values, environment values
Country of respondent	Country of respondent as a control variable

Source: Authors' elaborations.

Second, attitudes related to the Israeli-Palestinian conflict are expected to influence individuals' WTP. Clearly, stronger anti-Semitic or anti-Arabic attitudes should have a negative effect on WTP for peace products. The obvious reason is that one of the two parties, either Israel or Palestine, is negatively evaluated. The same is true for perceptions of the Israeli-Palestinian conflict. Those who perceive Israel or Palestine to be the main driving force of the conflict should be less in favor of peace building commodities than those who believe that both parties are equally responsible for the conflict. Furthermore, if anti-Semitism is prosecuted, as it is in most Western societies, less direct forms such as anti-Zionism against Israel, that is, a mindset that denies Israel the right to exist, absorbs the psychological function of anti-Semitism (Bergmann and Wilhelm Heitmeyer 2005). Thus, consumers with anti-Zionist attitudes shall express lower WTP values for peace brands. Similarly, consumers who deny Palestine the right to exist (e.g., as an independent national state) should be in disfavour of peace products.

Third, norms are a main determinant of human behaviour. Following well-known models from social psychology such as Schwartz's norm-activation model (Schwartz 1977) and Ajzen's theory of planned behaviour (Ajzen 1991), a higher WTP can be expected if a positive personal and social norm is present. A personal norm means that an individual perceives a moral obligation for buying peace products. An individual's perception of social pressure from reference group members to buy peace products is captured by the social norm. For example, an individual might get social approval from significant others if he/she buys peace products, but social disapproval if he/she does not do so.

Fourth, the study will deal with values which influence consumer behaviour (see Trommsdorf and Teichert 2011). Consumers have different values concerning the environment, shopping, cooking and/or eating. Accordingly whether or not they would support peace brands should also differ to a certain extent. For example, people who are socially orientated and likely to support fairly and environmentally friendly produced products would probably pay more for peace brands.

Fifth, the present study has to take possible differences between countries into account. For instance, it might be that countries differ with regard to the effects of anti-Semitism on consumers' WTP for peace brands. Due to Germany's history, a very strong norm of "anti-anti-Semitism" is present. Thus, it is that in Germany effects of anti-Semitism are lower than in other countries (Zick et al. 2010), but that there are no differences with regard to the effects of anti-Zionism (as a form of detour communication of anti-Semitism). Due to that, in Poland stronger effects of anti-Semitism are present as in France or Great Britain (Zick et al. 2010). In the project Group-Focused Enmity in Europe (GFE-Europe), which is analyzing different enmities in Europe, Great Britain has the lowest anti-Semitism concerning our selected countries. Related to Islamophobia<sup>2</sup>, a similar outcome could be recognized. Great Britain has the lowest anti-Islamic attitude with a median of 2.52 and Poland the strongest with 2.71. France with 2.50 and Germany with a median of 2.62 are in between.<sup>3</sup> These examples demonstrate that a consumer's country of origin is a relevant control variable when investigating Israeli-Palestinian peace products.

### **3.2 Methods**

#### *Discrete Choice Experiments*

The willingness to pay analyses will be carried out by choice experiments. One of the economic theory footholds of choice experiments is the 'Characteristics Theory of Value' by Lancaster (1966). This theory holds that any good can be described as a bundle of characteristics, and the level they take. The utility of a product is determined by those characteristics (ibid). For example, olive oil can be described in terms of country of origin and

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<sup>2</sup> It would be observed that anti-Arabism is frequently mixed with Islamophobie or negative attitudes concerning Islam. There is no strict separation between both phenomenon in the society as well as in sciences. No direct international anti-Arabismus data are exist. Therefore we used Islamophobic data for the comparison of the countries opinions towards that topic.

<sup>3</sup> The attitudes are measured on a four point scale, were 1=strongly disagree; 2= disagree; 3=agree and 4=strongly agree means.

production attributes, for e.g. produced between Israel and Palestine, organic versus non-organic, and the price. But it is never possible to observe all utility parts of a product, e.g. uncaptured alternative attributes (McFadden 1974a). Therefore another economic proposition for choice experiments is the random utility theory. McFadden's random utility theory postulates that utility is a latent construct that exists in the mind of the consumers, but it cannot be observed by the researcher. If a researcher designs and implements a valid preference election procedure, it is possible to understand a significant proportion of the unobservable consumer utility, but some proportion of the utility will be unexplained (McFadden 1974a; Louviere 2001). Therefore the consumer's utility function  $U_i$  of the  $i$ th alternative can be portioned into two components: an, for the analyst, observable or systematic component part  $V_i$  and an unobservable or random part  $\varepsilon_i$  (Hensher et al. 2005; Loureiro and Umberger 2003; Louviere et al. 2000; Louviere 2001; McFadden 1974a; Walker and Ben-Akiva 2002).

$$U_i = V_i + \varepsilon_i \quad (1)$$

The assumption is that consumers will choose an alternative from a choice set to maximize their utility (Hensher et al. 2005; Gao et al. 2010). Therefore the consumer will evaluate and compare each alternative as represented by  $U_j$ ;  $j = 1, \dots, J$  alternatives and select the maximum utility alternative. For example, the probability of an individual choosing alternative  $i$  is equal to the probability that the utility of  $i$  is at least equal to the utility of alternative  $j$  after evaluating each alternative in the choice set of  $j = 1, \dots, i, \dots, J$  alternatives (Hensher et al. 2005). With consideration of equation one, this can be written as:

$$Prob_i = Prob[(V_i + \varepsilon_i) \geq (V_j + \varepsilon_j)] = Prob_i[(V_i - V_j) \geq (\varepsilon_j - \varepsilon_i) \forall j \in j = 1, \dots, J; i \neq j] \quad (2)$$

The consumer will select alternative  $i$  if the sum of the systematic ( $V_i$  and  $V_j$ ) and the random part ( $\varepsilon_i$  and  $\varepsilon_j$ ) of alternative  $i$  is at least equal to the sum of the systematic and the random part of alternative  $j$  (Louviere 2001). In other words the consumer will choose alternative  $i$ , if the difference in the observed part of the utility alternative  $i$  is at least equal to the unobserved part of the utility of alternative  $j$  after evaluating all alternatives of the choice set (Hensher et al. 2005). Concerning the Lancaster theory,  $V_i$  includes the product attributes  $x_i$  which cause utility. Each attribute will be valued by  $\beta_i$  according to its impact on the utility. This can be represented in the formula:

$$V_i = \beta_{1i}f_1(X_{1i}) + \beta_{2i}f_2(X_{2i}) + \dots + \beta_{Ki}f_K(X_{Ki}) \quad (3)$$

Where  $f$  subscripts that the attributes are variables in the utility function. The relationship can be linear, quadratic or logarithmical. The product has  $K$  attributes. The attribute characteristics, loadings and the absolute term is specific for each product alternative  $i$  (Hensher et al. 2005).

According to the random error term in equation (2) the model can be a logit or probit model for the estimation of  $\beta$  for each attribute (Train 2009).

We estimate the random parameter logit model and for comparison we also estimated a conditional logit model. Both models are used to analyze the choice of an individual among a set of I alternatives. The conditional logit model is focused in alternative specific characteristics. The alternative specific variables vary by outcome and individual (Long and Freese 2001). The probability for an individual n for selecting alternative i in a choice situation can be described as:

$$\text{Prob}_{nj} = \frac{\exp(\beta \mathbf{x}_{in})}{\sum_{i=1}^I \exp(\beta'_n \mathbf{x}_{in})}$$

Where  $\mathbf{x}_{in}$  stands for the characteristics of the ith alternative for individual n with the corresponding parameter vector  $\beta$ . The conditional logit model gives well arranged results but it is limited by the *Independence of Irrelevant Alternative* axiom (IIA) (McFadden 1974b or Maier and Weiss 1990). That means that the odds ratio of two alternatives is independent from availability and characteristics of different alternatives (Maier and Weiss 1990; Long and Freese 2001; McFadden 1974b). But in reality individuals often violate this assumption when making choices.

In contrast the random parameter model combines characteristics of the different alternatives as well as individual characteristics (Long and Freese 2001; Hensher et al. 2005). The model neglected the IIA axiom and is therefore more flexible and close to reality. The probability for an individual n for selecting alternative i in a choice situation can be express as:

$$\mathbf{Prob}_{in}(\beta_n/\mathbf{X}_n, \eta_n) = \frac{\exp(\beta_n \mathbf{x}_{in} + \eta_{in})}{\sum_{i=1}^I \exp(\beta'_n \mathbf{x}_{in} + \eta_{in})} \quad (4)$$

Where  $\eta_{in}$  includes extra information for each individual (Hensher et al. 2005; Hensher and Green 2003; Long and Freese 2001).

#### *The Data Collection Process*

The data for this study were collected via an online panel from mid-March to the beginning of April 2012. In total 13.452 panel members in Germany and Great Britain were contacted by the panel provider. 2590 contacted persons started the questionnaire and 60% completed the online questionnaire answering questions about their shopping, cooking and eating habits as well as political attitudes concerning their shopping behavior, the Middle East conflict and anti-Arabism as well as anti-Semitism. In total, 1456 respondents from Germany and Great Britain were included in analysis.

The core part of the survey consists of a discrete choice experiment. In the experiment consumers were shown different product descriptions of extra virgin olive oil and cherry tomatoes and had to choose which one they would buy. The choice of analyzed products was motivated by the production potential of Israel and the Palestinian territories. Olive oil and tomatoes are widely produced in this region but currently mostly locally marketed. Olive oil was chosen since it represents a more costly premium product which is not frequently

purchased. It might also be purchased as a gift or, since it can be served in its original container, otherwise allow a purchaser, when entertaining guests or in a restaurant, to ‘display’ his or her support for peace in the Middle East. Cherry-tomatoes, in contrast, are an everyday food commodity which are less costly and purchased more frequently. Each description contains three product alternatives and one opt-out alternative. The opt-out-alternative was chosen to resemble the situation in a supermarket as closely as possible. The alternatives were defined by different attributes including price, production method and country of origin. Their levels are presented in Table 2.

**Table 2: Levels of the Attributes in the Choice Experiments**

Attribute	Levels	
	<i>Olive oil</i>	<i>Cherry tomatoes</i>
Organic	Yes, No	Yes, No
Country of origin	Israel, Palestinian Territories, Peace Brand, Italy	Israel, Palestinian Territories, Peace Brand, Netherlands
Price for GER (€)	3, 6,10,15	1, 1.75, 2.50, 3.25
Price for GBR (£)	2, 4, 8, 12	0.8, 1.40, 2.00, 2.70

Source: Authors’ elaborations.

The extra virgin olive oil containers shown are half liter bottles. The cherry tomatoes are packed in 250g packages. The price varies as shown in table 2 from 3 to 15 Euros in Germany and from 2 to 12 British Pound in Great Britain for olive oil and from 1 to 3.25 Euros in Germany and 0.8 to 2.70 British Pound in Great Britain for cherry tomatoes. The price levels between the different countries were calculated by the purchasing power parities<sup>4</sup> of EUROSTAT 2010 to make them comparable. The production methods are organic or non-organic. Special features for the country of origin are the peace brands, products which are produced in a framework of peacemaking. Other countries of origin are Israel and the Palestinian Territories for both products, as well as Italy for olive oil and the Netherlands for cherry tomatoes.

Since the full factorial of all attribute- (level-) combinations is too large we worked with a fractional factorial design. More specifically we employed an optimal orthogonal in the differenced (OOD) design as implemented in the software Ngene (see Burgess and Street 2005, for the software and manual <http://www.choice-metrics.com>). Besides orthogonality, the choice design was constructed in a way that there would be minimal overlap between attribute levels across alternatives on a choice card. The basic idea is that this criterion forces respondents to make trade-offs between the single attributes on a choice card. Orthogonality

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<sup>4</sup> “Purchasing power parities (PPPs) are indicators of price level differences across countries. PPPs tell us how many currency units a given quantity of goods and services costs in different countries.”(Eurostat 2012)

makes sure that the influence of a single attribute can be determined independently from the other attributes present on a choice card. We obtained 20 choice cards per product which were blocked into four groups, that is, every respondent answered five choice cards (the design has a d-optimality of 98%). Figure 1 gives an example of a choice card as presented in the survey. Respondents should imagine that they are in front of a supermarket shelf and were asked to select the product that they would choose.

**Figure 1: Example of Choice Card**

Characteristics	Olive Oil A (500ml)	Olive Oil B (500ml)	Olive Oil C (500ml)	None of them
Organic	Yes	Yes	No	
Origin	Peace Brand	Palestinian Territories	Italy	
Price	10 Euro	3 Euro	6 Euro	
<b>I choose... (please click on)</b>	O	O	O	O

Source: Authors' design of the choice experiment.

The questionnaire design approach is sequential. This means that the questionnaire had been developed and was then pretested by a small number of people. Hereafter, translation into target languages was carried out (Harkness et al. 2003). A back translation process was used. The translation process of the questionnaire was carried out by native speakers. For example, we first translated from German to English and then back from English to German. After the translation both questionnaires in the source language would be compared to make sure that the questionnaire was the same in both languages as recommended by Harkness (2003). The selected items of the questionnaire are connectional, comprehensible and similarly interpretable in all four countries. All questionnaires were checked by other native speakers again to make sure that all questions are understandable.

## 4. Data

### *Composition of the Sample*

From the 1456 respondents which completed the questionnaire 811 are female and 645 are male. In Table 2 the descriptive statistic of the sample composition is represented. In total 781 respondents answered the German questionnaire and 675 the English one. The age is between 17 and 67 years for both countries. The mean age is 42 years for Germany and 40 years for Great Britain. Concerning the education level most of the respondents have a lower secondary education with degree after 10 years. For comparability between the survey countries the household net income variable in the questionnaire is measured in deciles from EU-SILC data.<sup>5</sup> The majority of the respondents in Germany and Great Britain are in the second net

<sup>5</sup> The deciles are calculated by the Leibniz Institute for the Social Sciences Social Indicators Research Center (gesis) using the 'European Union Statistics on Income and Living Conditions' (EU-SILC) Data from 2009.

income decile, between 1041 and 1500 Euro for Germany and 831 and 1180 British Pound for Great Britain (see appendix1). The political orientation of the respondents is measured in a ten point scale. The number 1 stands for left wing and number 10 for right wing of the political system, therefore five and six are the middle categories (middle left and middle right).

**Table 2: Sample Composition**

<b>Demographic Variables</b>	<b>GER</b>	<b>GBR</b>	<b>Total</b>
<b><i>Gender:</i></b>			
Female (%)	52.4	59.6	55.7
Male (%)	47.6	40.4	44.3
<b><i>Age :</i></b>			
Mean	42.37	40.57	41.53
Std.	12.27	11.83	12.10
Min.	18	17	17
Max.	65	67	67
<b><i>Education:</i></b>			
Still student (%)	0.4	3.3	1.7
Without degree (%)	0.3	2.7	1.4
Lower secondary ( 8/9 years) (%)	13.8		7.4
Lower secondary (10 years) (%)	45.5	33.2	39.8
Upper secondary (12/13 years) (%)	17.4	29.2	22.9
University degree (%)	22.7	31.7	26.9
<b><i>Political orientation:</i></b>			
Mean	4.7	5.04	4.86
Std.	1.73	1.78	1.76

Source: Authors' elaborations.

### *Results of the Choice Experiment*

Based on the advantages, mentioned in chapter 3.2, we estimated the random parameter logit model by using the Stata command by Hole (2007) with simulated maximum likelihood using replications of 500 Halton draws. For comparison, also the conditional logit model was estimated. Three alternative specific constants were included in the analysis to see if there would be systematic influences of each alternative, e.g. if one option is preferred to be chosen. In the estimation price was a fixed variable and not randomly distributed. Therefore the distribution of the marginal willingness- to pay for an attribute is simply calculable by the distribution of that attribute's coefficient. The non-price attributes were all randomly distributed within a normal distribution. The reference category for the countries of origin are

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“The “EU-SILC provides cross-sectional and longitudinal microdata on income, poverty, social exclusion and living conditions” on household and individual level data (Gesis 2012)

the Palestinian Territories and for the price the lowest one for each country. The estimation results of both models for both products and countries are presented in tables 3 and 4.

Estimations show that the random parameter logit model is useful in this particular context, because the estimated standard deviations are significant, which means that there is heterogeneity in preferences among the respondents which are represent in that model. As well as the log likelihood value increases by using the random parameter logit instead of the conditional logit. Therefore the random parameter logit model will be interpreted in the following.

The attributes for olive oil in both countries are highly significant, except for “Israel” (see table 3). In the German model “Israel” is significant on the 10% level and in the random parameter logit model for Great Britain it is not significant. Therefore respondents in Great Britain and Germany do not or not highly significantly differ between products from Israel or the Palestinian Territories. All other means and standard deviations are significant. This denotes heterogeneity in the attribute preferences. People in both countries prefer lower prices for olive oil. Concerning the country of origin in Great Britain and Germany the “peace brand” and the “Italian” product are preferred concerning the product from the Palestinian Territories. In both countries the organic attribute is positively valued.

**Table 3: Conditional Logit and Random Parameter Logit for Olive Oil**

	Conditional Logit		Random Parameter Logit			
	Coef. (GER)	Coef. (GBR)	Coef. (GER)	Coef. Std (GER)	Coef. (GBR)	Coef. (GBR)
ASC 1	1.02***	1.57***	1.58***		2.27***	
ASC 2	1.28***	2.07***	1.96***		3.08***	
ASC 3	0.99***	1.54***	1.49***		2.34***	
Organic	0.51***	0.31***	0.89***	1.50***	0.56***	1.44***
Peace Brand	0.51***	0.58***	0.58***	1.42***	0.78***	1.71***
Israel	0.10*	0.23***	-0.15*	0.90***	-0.11	1.24***
Italy	0.54***	0.56***	0.86***	2.01***	1.11***	2.18***
Price	-0.19***	-0.30***	-0.31***		-0.52***	
(S)LL	-12281.5	-10079.89	-4034.09		-2989.74	
No. of respondents			781		675	
No. of observations			15620		13500	

Source: Authors' elaborations.

Notes: \*\*\*Significant on the 1% level; \*\*Significant on the 5% level; \* Significant on the 10% level.

The results for cherry tomatoes are presented in table 4. All attributes for both countries are significant, except “Israel” as country of origin for Great Britain. Therefore people in Great Britain do not distinguish between products from Israel or the Palestinian Territories. All the other countries of origin are preferred compared to the Palestinian product. The price attribute for both countries has a negative direction, like for olive oil. Respondents prefer cheaper products. Also organic products are more positively valued than conventionally products.

**Table 4: Conditional Logit and Random Parameter Logit for Cherry Tomatoes**

	Conditional Logit		Random Parameter Logit			
	Coef.	Coef.	Coef.	Coef. Std.	Coef.	Coef. Std.
	(GER)	(GBR)	(GER)	(GER)	(GBR)	(GBR)
Intercept 1	1.50***	2.28***	2.38***		3.70***	
Intercept 2	1.96***	2.73***	2.95***		4.37***	
Intercept 3	1.64***	2.37***	2.25***		3.73***	
Organic	0.76***	0.39***	1.40***	1.82***	0.79***	1.84***
Peace Brand	0.56***	0.63***	0.57***	1.99***	0.76***	2.16***
Israel	0.33*	0.31***	0.19**	1.07***	-0.01	1.12***
Netherlands	0.46***	0.33***	0.91***	1.65***	0.74***	1.97***
Price	-0.82***	-1.36***	-1.42***		-2.41***	
(S)LL	-12102.25	-10172.85	-3877.62		-3042.92	
No. of respondents			781		675	
No. of observations			15620		13500	

Source: Authors' elaborations.

Notes: \*\*\*Significant on the 1% level; \*\*Significant on the 5% level; \* Significant on the 10% level.

### *WTP*

In the above estimated models we can see if coefficients are significant and in which direction they interact. But we do not obtain absolute values for interpretation of the strength of each attribute compared to the other attributes. Therefore we calculated the marginal willingness to pay for a change in each attribute by dividing the attribute coefficient by the price coefficient. The results are presented in tables 5 and 6. The estimations of the WTP and the confidence intervals were obtained using the Krinsky and Robb method (see Haab and McConnell 2002) with 1000 replications.

In the olive oil random parameter models for both countries all attributes are significant, except "Israel". There is a positive willingness to pay for "peace brands" as well as products from Italy. The surplus for products from Italy is greater than the surplus for the peace products. The differences could be confirmed by the Wald test for the coefficients in the random parameter model as well as by changing the reference category in the random parameter model from product from the Palestinian Territories to the Italian product. The coefficients for the peace product and Italy differ on the 5% level in the Wald test. With Italy as reference category in the random parameter model the directions for all country attributes are negative. Therefore respondents in Germany and Great Britain prefer the Italian product. Nevertheless, the peace brand is preferred compared to products just from Israel or the Palestinian Territories. Respondents in both countries are supporting organic products with extra payment.

Table 5: Marginal WTP and 90% Confidence Intervals for Attributes of Olive Oil

	Conditional Logit			Random Parameter Logit		
	<i>Marginal Mean</i>	<i>Lower bound</i>	<i>Upper bound</i>	<i>Marginal Mean</i>	<i>Lower bound</i>	<i>Upper bound</i>
<i>GER</i>						
Organic	2.68	2.27	3.13	2.84	2.35	3.35
Peace brand	2.71	2.13	3.25	1.87	1.27	2.41
Israel	0.53	-0.10	1.14	-0.50	-1.09	0.09
Italy	2.85	2.24	3.40	2.77	2.05	3.45
<i>GBR</i>						
Organic	1.02	0.77	1.29	1.09	0.77	1.42
Peace brand	1.90	1.53	2.26	1.51	1.04	1.91
Israel	0.76	0.34	1.16	-0.21	-0.64	0.21
Italy	1.82	1.41	2.18	2.13	1.64	2.61

Source: Authors' elaborations.

Table 6: Marginal WTP and 90% Confidence Intervals for Attributes of Cherry Tomatoes

	Conditional Logit			Random Parameter Logit		
	<i>Marginal Mean</i>	<i>Lower bound</i>	<i>Upper bound</i>	<i>Marginal Mean</i>	<i>Lower bound</i>	<i>Upper bound</i>
<i>GER</i>						
Organic	0.92	0.82	1.03	0.99	0.86	1.12
Peace brand	0.68	0.55	0.80	0.40	0.25	0.54
Israel	0.41	0.27	0.54	0.14	0.00	0.27
Netherlands	0.57	0.43	0.69	0.65	0.49	0.79
<i>GBR</i>						
Organic	0.29	0.23	0.35	0.32	0.25	0.40
Peace brand	0.46	0.38	0.53	0.31	0.21	0.41
Israel	0.23	0.14	0.31	-0.01	-0.09	0.08
Netherlands	0.24	0.15	0.32	0.31	0.20	0.41

Source: Authors' elaborations.

The German consumers are willing to pay a higher premium for the products from the Netherlands than for the peace brands. Those findings are underpinned by the Wald test of the coefficient of the Netherlands and the peace brand. Both coefficients differ on a 5% level from each other. We also changed the reference country to the Netherlands in the random parameter model. Here the significant direction for the peace brand was negative. Therefore respondents prefer the Dutch product instead of the peace brand. Nevertheless respondents

preferred the peace brand compared to a product which is produced alone by the Palestinian Territories or Israel. People in Germany are willing to pay a surplus for organic products.

A completely different picture occurred regarding the British consumers concerning their willingness to pay for cherry tomatoes. The British respondents were willing to pay the same surplus for the peace brand as for the Dutch product. The Wald test for the coefficients as well as the changed reference category in the random parameter logit model confirmed these findings. The Wald test on a 5% significance level could not reject the null hypothesis, that there are no differences between the coefficients for the peace brand and the product from the Netherlands. By a reference category change to the Netherlands the peace brand attribute is no longer significant on the 10% level. Therefore respondents do not distinguish between products from the Netherlands and peace brands. Beyond this, British people are also willing to pay extra for organic products.

## **5. Discussion**

This research targets analyzing consumers' willingness to pay for the ethical commodity attribute of a peace brand across Great Britain and Germany. The attribute of interest is evaluated using choice experiments. We suggest labeling a commodity as a "peace brand" if it supports reconciliation, peace building and peaceful coexistence of members of the parties in political and/or violent conflicts, that is, between Israelis and Palestinians in the given case. We estimated conditional logit models and random parameter models as well as marginal willingness to pay for olive oil and cherry tomatoes in Germany and Great Britain. Concerning the restrictions of the conditional logit model and the better fit of the random parameter logit model we interpreted the random parameter models. For olive oil first off all a positive willingness to pay for the Italian product is apparent. However, Israeli-Palestinian peace products are preferred compared to products which are produced only in one of those countries. Consumers in Great Britain as well as in Germany are willing to pay extra for the 'organic' attribute. Respondents in Germany are more willing to pay for cherry tomatoes from the Netherlands than for peace brands. But they also prefer the cooperation product instead of a single country product, just from Israel or the Palestinian Territories. Consumers in Great Britain value peace products and products from the Netherlands similarly. They would support both in the same manner instead of a single country product. For organic cherry tomatoes both countries are willing to pay extra as opposed to non-organic products.

In the ongoing research project, data for France and Poland are being gathered and variables, such as socio-economic status, anti-Semitism, shopping behavior et cetera, will be included in the model. We expect that the WTP for peace brands depends on the political attitudes towards the Israeli-Palestinian conflict. Indirect determinants could be ethnical or religious prejudices, such as anti-Semitism and anti-Arabism, which are often interdependent with individuals' views regarding this conflict. Also typical consumer structures, such as ethical shopping, will probably have an influence on the WTP for such products. This information is accounted for in the ongoing survey and will be analyzed in further research.

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## Appendix 1: Net income decile

<b>Decile GER in Euro</b>	<b>Decile GBR in British Pound</b>	<b>GER</b>	<b>Land GBR</b>	<b>Total</b>
Up to 1040	Up to 830	14.6%	13.8%	14.2%
1041-1500	831-1180	15.4%	14.7%	15.1%
1501-1900	1181-1480	12.4%	13.7%	13%
1901-2280	1481-1790	13.6%	10.3%	12%
2281-2680	1791-2120	13.2%	11.7%	12.5%
2681-3130	2121-2480	12.2%	9.2%	10.8%
3131-3640	2481-2920	7.6%	6.8%	7.2%
3641-4250	2921-3500	4.5%	7.4%	5.8%
4251-5280	3501-4490	3.1%	5.9%	4.4%
More than 5280	More than 4490	3.6%	6.4%	4.9%
<b>Total</b>	Number	781	673	1454
	%	100	100	100

Source: Authors elaboration.

Note: Two cases are missing values.