

TOWARDS A CHARACTERIZATION OF THE ETHICAL CONSUMER: CONSPICUOUS ETHICS

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Abstract - This paper considers a group of consumers who have preferences over how a good is produced and distributed, rather its traits alone. Moreover, it is hypothesized that these preferences also depend on prices, and that prices inform consumers about the way goods are produced and distributed. In this paper we done the motivation, and state the assumptions and conditions representing the consumption behaviour of the ethical consumer. It is shown that a price dependent direct utility function provides the necessary structure in the characterization of the consumption behaviour of the ethical consumer.

Keywords - Ethical Consumerism, Fair Trade, Ethical Preferences, Price-dependent Preferences
JEL: D01, D10, D11

I. INTRODUCTION

Ethical consumption is on the rise. A significant number of consumers base their daily consumption decisions on the basis of ethical values, such as human rights, environmentally friendly production, sustainable production and distribution standards, and animal well-being [16]. Ethical consumers, hence, are consumers who beyond making rational consumption decisions on price-quantity apply certain values when making consumption decisions. According to Doane [6], ethical consumers feel responsible towards society and express these feelings via their purchasing behaviour. Examples of positive ethical consumption are the purchase of fair trade, organic, and "green" products. Negative ethical consumption refers to the consumption behaviour where ethical consumers express their concerns about society and environment through the boycott of purchasing unethically produced goods, i.e., goods produced under child labour, and wages below a minimum wage [16]. Another distinct property of ethical consumption is that the demand for ethically produced and distributed goods is positively correlated with prices. We illustrate this at the example of Fair Trade coffee consumption.¹ Basu and Hicks [2] and Pelsmacker et al [12] analyse the stated preferences of students in the US and Canada and show that a positive relationship between Fair Trade prices and demand for ethically produced coffee exists. These results have been replicated for revealed preferences of customers of supermarkets in the same countries by Laureiro and Lotade [11] and Cranfield et al [8]. See also [4],[3],[14] for similar results. In this paper we address these properties of ethical consumption:

- (a) Ethical consumers have preferences over ethically produced and distributed goods.
- (b) Ethical consumers boycott the consumption of unethically produced and distributed goods.

- (c) The demand for ethically produced and distributed goods is positively correlated with prices.

The comprehensive literature review on Fair Trade consumption by Andorfer and Liebe [1] classifies the Lancaster model [10] as one of the main theoretical approaches to analyse Fair Trade consumption. However, Andorfer and Liebe do not provide further insights into the model and in particular its characterization of consumption goods. We aim at providing these details subsequently. Property (a) requires a characterization of a consumption good in terms of ethical values. Lancaster introduces a model where consumers do not derive utility from the consumption of goods but from their characteristics. He defines goods $x \in \mathbb{R}^L$ and characteristics of goods z in terms of consumption activities $y \in \mathbb{R}^M$, where $f: \mathbb{R}^M \rightarrow \mathbb{R}^L$ and $g: \mathbb{R}^M \rightarrow \mathbb{R}^N$ are smooth mappings. It then follows that the characteristics of goods are indirectly described by a composite mapping

$$z = g(f^{-1}(x)).$$

In Lancaster's model a consumer derives utility from the characteristics of a good. Hence, a characteristic bundle $z \in \mathbb{R}^N$ is assumed to be quantifiable. This is a restrictive assumption, which does not permit modelling ethically produced goods. To see this, consider the ethical value production under no child labour. The model says that the consumer derives utility from no child labour in a measurable continuous way. Hence, less child labour is better than more. But, in our characterization above (b), an ethical consumer would boycott the purchasing of an unethically produced good [16]. Moreover, market prices are associated with commodities and not the characteristics of the goods. This implies that preferences cannot be price dependent, suggesting that the structure of the model is not sufficiently rich to model property (c).

Remark 1 Lancaster's model does not permit ethical preferences (a). It does not permit the observed ethical consumption behaviour (b) and (c). The standard consumer model and neoclassical economic theory in general assumes that a consumer chooses a consumption bundle x given an equilibrium price p subject to a budget constraint such that his utility derived from consuming the good is maximized.

Remark 2 The standard economic model does not imply (a). According to Debreu [5] goods are characterized by their physical, temporal, and spatial nature. Moreover, the characterization of the consumer is not sufficiently rich in structure to permit consumers to boycott the consumption of unethically produced goods (b) and to demand more when prices rise (c). These observations lead to the consideration of a model of conspicuous consumption [17]. In "The Theory of the Leisure Class", Veblen ([17], chapter 4, p.35-36) recognizes that the consumption of "more excellent goods" is evidence of wealth and that failure to do so becomes a mark of inferiority and demerit. Moreover, he understands that a utility function, which, is independent of prices is not a suitable framework for the analysis of consumption behaviour of conspicuous goods. Implicit in his formulation of the consumer, Veblen believes that prices do not only signal the scarcity of goods in the coordination of consumption allocations, but they do also affect the individual's preferences [15],[13].

Conspicuous consumption refers to the consumption of types of goods which publicly display economic power. Veblen also introduces the following definitions: Invidious consumption refers to the consumption of goods that provoke the envy of other people. Conspicuous compassion refers to charitable donations of money in order to enhance the social prestige of the donor, with a display of superior socio-economic status.

Remark 3 In Veblen's model none of the consumption behaviours imply (a). Hence (b) and (c) can not be inferred from Veblen. The literature on the theory of ethical consumption is sparse, suggesting that the characterization of the ethical consumer is a non trivial open problem. Nevertheless, in this paper, we attempt to go a step towards such a characterization. This requires at first instance to provide a motivation for the consumption of ethical goods. At variance to the neoclassical model and Lancaster, we follow Veblen's paradigm and introduce the new concept of conspicuous ethics. This concept suggests that consumers like to spend money on the consumption of ethically produced and distributed goods because they strive for superior ethical esteem towards society. Based on this motivation for ethical consumption, the next problem is then to provide a well defined and mathematically tractable consumer model. This requires establishing a set of assumptions on the utility of the ethical

consumer. The empirical literature on ethical consumption suggests a positive relationship between prices and demand for ethically produced and distributed goods. In order to capture this consumption behaviour in our model, we hypothesize that ethical consumers have price dependent preferences over how goods are produced and distributed. Our main result shows that it is indeed necessary to characterize ethical consumers by price dependent direct utility functions. The necessity follows from a shift of the indifference curve given a change in the relative prices. The next section discusses the model of ethical consumption in some detail. The main result is discussed in the conclusion, which also suggests directions for future work.

II. MODELLING THE ETHICAL CONSUMER

Definition 1 Conspicuous ethics refers to an ethical consumption behaviour where a consumer expresses superior ethical responsibility towards society by purchasing ethically produced and distributed goods. The ethical consumer also expresses superior ethical responsibility towards society by boycotting the consumption of unethically produced and distributed goods.

Let there be a group of socially responsible consumers represented by an index $i = 1, \dots, I$ satisfying definition 1. There are $l = 1, \dots, L$ ethically produced and distributed consumption goods. A consumption bundle is denoted

$$x_i \in X_i, \text{ where } X_i \subseteq \mathbb{R}_{++}^L.$$

We consider the following price normalization $q = (q^1, \dots, q^n) \in \mathbb{S} \cup \bar{\mathbb{S}}$, where

$$\mathbb{S} := \{p \in \mathbb{R}_{++}^L : \sum_{l=1}^n p^l = 1\},$$

with its closure simplex defined by

$$\bar{\mathbb{S}} := \{p \in \mathbb{R}_+^L : \sum_{l=1}^n p^l = 1\}.$$

Preferences for goods may depend on prices because consumers judge quality by its price [17] or because a higher price enhances the "snob appeal" of a good [15]. Similarly, we hypothesize that preferences depend on prices because an ethically produced and distributed good enhances the "superior social responsibility" of a consumer towards society. For example, consumers are willing to pay a premium for ethically produced goods, and when market prices fall below a certain threshold, consumers are willing to pay a minimum price to producers, which guarantees ethical production. We employ a relative price hypothesis which implies that both the short run and

long run demand functions are homogenous of degree zero in prices and total expenditure ([13], page 67). It is well known that such demand functions permit a meaningful welfare analysis, which is not the case when considering absolute price dependent preferences [13]. Assumption 1 For every $i = 1, \dots, I$, an ethical preference is a pair consisting of a preference ordering over an ethically produced and distributed consumption bundle $x_i \in \mathbb{X}_i$ and a relative price system $q = (q^1, \dots, q^n) \in \mathbb{S}$, where

$$s : \mathcal{S} \rightarrow \mathbb{S} \quad (1)$$

is a one-to-one map, disentangling the relative ethical consumption prices $p \in \mathcal{S}$ into a price index $q \in \mathbb{S}$ which enters the direct utility of the consumer .

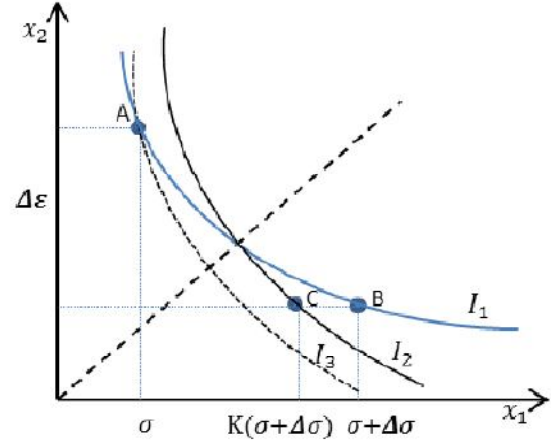


Figure 1: Result of theorem 3: Shift of price dependent preferences

We introduce a parameterized price dependent utility function

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$$u_i : \mathbb{X}_i \times \bar{\mathbb{S}} \rightarrow \mathbb{R} \quad (2)$$

Assumption 2 (i) The parameterized utility function $u_i(x_i; q)$ is smooth on the domain $\mathbb{X}_i \times \mathbb{S}$, and continuous on the domain $\mathbb{X}_i \times \bar{\mathbb{S}}$. (ii) The parameterized utility function is smoothly increasing w.r.t. every x_i^l , $Du_i(x_i; q) > 0$ for every $q \in \bar{\mathbb{S}}$. (iii) The parameterized utility function is smoothly quasi concave. The restriction of the quadratic form $D^2u_i(x_i; q)$ to the tangent hyperplane at $x_i^* \in \mathbb{X}_i$ to the hypersurface $\{x_i \in \mathbb{X}_i : u_i(x_i; q) = u_i(x_i^*; q)\}$ is negative definite for every $q \in \bar{\mathbb{S}}$ and $x_i^* \in \mathbb{X}_i$. (iv) For any u_i^* there exists some $x_i^* \in \mathbb{X}_i$ such that the hypersurface $\{x_i \in \mathbb{X}_i : u_i(x_i; q) = u_i^*\}$ is bounded from below for every $q \in \bar{\mathbb{S}}$. (v) The parameterized utility function is smoothly increasing w.r.t. every q_i^l , $Du_i(x_i; q) \geq 0$ for every $q \in \bar{\mathbb{S}}$ with strict equality for at least one q_i^l .

Let an ethical consumer $i = 1, \dots, m$ be endowed with a vector of initial endowments $\omega_i = (\omega_i^1, \dots, \omega_i^n) \in \Omega_i \subset \mathbb{R}_{++}$, and let his set of feasible consumption allocations be defined by $\mathcal{B}(p, \omega_i) := \{(p, x_i) \in \mathcal{S} \times \mathbb{R}_+^n : p \cdot x_i \leq p \cdot \omega_i\}$. Let assumptions 1 and 2 hold. Then for any given ethical price system³ $p \in \mathcal{S}$ the objective of the consumer is formalized as

$$\arg \max_{x_i \in \mathcal{B}(p, \omega_i)} u_i(x_i; s(p)) \quad (3)$$

Theorem 3 An ethical consumer is characterized by a price dependent direct utility function if there is a constant $0 < K(\Delta \epsilon_i) < 2$ such that

$$\mathcal{E} = \frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k} > 0. \quad (4)$$

Proof. By the Fechner and Weber theorem [7], we have

$$\Delta \epsilon_i = \ln(\sigma_i + \Delta \sigma_i) - \ln(\sigma_i) \quad (5)$$

$$\begin{aligned} \sigma_i &:= \frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k} \\ \Delta \sigma_i &:= \frac{q^k}{MRS(s(p))_j} \frac{\partial MRS(s(p))_j}{\partial p^k} - \frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k} \end{aligned}$$

From equation (5), we obtain by substitution

$$\begin{aligned} \Delta \epsilon_i &= \ln \left(\frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k} + \frac{q^k}{MRS(s(p))_j} \frac{\partial MRS(s(p))_j}{\partial p^k} - \frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k} \right) \\ &\quad - \ln \left(\frac{q^k}{MRS(s(p))_i} \frac{\partial MRS(s(p))_l}{\partial p^k} \right) \\ \Delta \epsilon_i &- \ln \left(\frac{\left(\frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k} + \frac{q^k}{MRS(s(p))_j} \frac{\partial MRS(s(p))_j}{\partial p^k} - \frac{q^k}{MRS(s(p))_j} \frac{\partial MRS(s(p))_l}{\partial p^k} \right)}{\left(\frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k} \right)} \right) \end{aligned} \quad (6)$$

which yields

$$e^{\Delta \epsilon_i} = e^{\ln \left(\frac{\frac{q^k}{MRS(s(p))_j} \frac{\partial MRS(s(p))_j}{\partial p^k}}{\frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k}} \right)} =: K(\wedge \epsilon_i) \quad (7)$$

From equations (6) and (7) we obtain

$$\begin{aligned} K(\Delta \epsilon_i) &= \frac{\left(\frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k} + \frac{q^k}{MRS(s(p))_j} \frac{\partial MRS(s(p))_j}{\partial p^k} - \frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k} \right)}{\frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k}} \\ K(\Delta \epsilon_i) \frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k} &= \frac{q^k}{MRS(s(p))_i} \frac{\partial MRS(s(p))_l}{\partial p^k} \\ &\quad + \frac{q^k}{MRS(s(p))_j} \frac{\partial MRS(s(p))_j}{\partial p^k} \\ &\quad - \frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k} \\ K(\Delta \epsilon_i) \frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k} - \frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k} &= \frac{q^k}{MRS(s(p))_j} \frac{\partial MRS(s(p))_j}{\partial p^k} \\ &\quad - \frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k} \\ \frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k} (K(\Delta \epsilon_i) - 1) &= \frac{q^k}{MRS(s(p))_j} \frac{\partial MRS(s(p))_j}{\partial p^k} \\ &\quad - \frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k} \end{aligned}$$

Define a new constant $K := K(\wedge \epsilon_i) - 1 = e^{\Delta \epsilon_i} - 1$, which by substitution an little algebraic manipulation yields

$$\frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k} = \frac{\frac{q^k}{MRS(s(p))_j} \frac{\partial MRS(s(p))_j}{\partial p^k} - \frac{q^k}{MRS(s(p))_l} \frac{\partial MRS(s(p))_l}{\partial p^k}}{K} > 0$$

The right hand side contracts if $0 < K < 1$, hence $e^{\Delta \epsilon_i} - 1 < 1$ from which the condition of the theorem follows. ■

CONCLUSION

The paper considers conspicuous ethics as the main driver of ethical consumption. It is assumed that ethical consumers have preferences over the way goods are produced and distributed. This is at variance to the standard economic model, which

assumes a preference ordering over the traits of goods. Moreover, in order to reect the empirically observed positive relationship between prices and demand for ethically produced goods, it is hypothesized that preferences also depend on 5 prices. This is similar to the literature on product quality [13] and "snob appeal" [15]. The relative price

hypothesis suggest that short run and long run demand functions are homogenous of degree zero. This is a desirable property, which permits meaningful welfare analysis [9]. The main result shows that as small perturbation to the price system shifts the preferences of the ethical consumer, suggesting an objective function represented by a prize parameterized direct utility function. This paper provides a new framework for modelling ethical consumption. Moreover, the formula stated in the main theorem is empirically verifiable. The hypothesis to reject is $\varepsilon \leq 0$, which suggests that ethical preferences do not depend on prices $\varepsilon = 0$ or satisfy the usual law of demand $\varepsilon < 0$. This is work in progress.

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