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Corporate Social Responsibility and the Economics of Consumer Social Responsibility*

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Abstract: The promotion of Corporate Social Responsibility (CSR) is likely to depend on consumers' purchase behaviors. While many consumers like the idea of social responsibility, the ethical consumption remains at a low level. This survey analyses two main barriers to ethical consumption: the willingness-to-pay for it, which relates to consumer social preferences; and the information asymmetry between companies and consumers. The economic literature shows that consumer social preferences are related to altruistic, self-image and social image concerns. Only consumers with strong social preferences and a low marginal utility of income (a high income) are likely to purchase CSR products. Moreover, purchase decisions crucially depend on the existence of labels, which truthfully identify the CSR products. Public policies may promote consumer social responsibility through education programs that enhance social preferences in children, price subsidies and careful label regulation.

Key-Words: CORPORATE SOCIAL RESPONSIBILITY, CONSUMER, SOCIAL PREFERENCE, ASYMMETRIC INFORMATION, LABEL

JEL codes: L15, M14, D03, D82.

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1 Introduction

The European Commission defines Corporate Social Responsibility (CSR) as "a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis" (European Commission, 2001).[1] It sees CSR as a tool that would help reconcile economic, social and environmental ambitions, and "wishes to give greater political visibility to CSR, to acknowledge what European enterprises already do in this field and to encourage them to do more" (European Commission, 2006). CSR implies the use of social-, environmental- and health-friendly technologies during the production process and the incorporation of these technologies into the product itself.[2] The spectrum of activities covered by CSR is likely to be large, as social responsibility requires that attention be paid to many stakeholders, including the company's stock holders, its suppliers, its employees, its customers, and all individuals and communities that may be affected by its decisions. This is reminiscent of considerations of externalities associated to private actions in public economics. In most cases, CSR activities aim at reducing negative externalities, such as pollutant emissions or the variability of farmers' income. In some cases, positive externalities are produced, as in the financing of technological transfers to local farming communities, or school building. Hence, from a neo-classical point of view, favoring the development of CSR has three key advantages. It may help to solve some market imperfections, such as the externalities generated by market activities. It may increase the local provision of public goods in an efficient, decentralized, manner. *A priori*, state intervention is kept at a minimum, and so are market distortions.

CSR has increasingly become an important concept in public policies, corporate communication and management sciences, which have used various conceptual framework to examine consumer demand for CSR (see, *inter alia*, Carrigan and Attalla, 2001; Mohr *et al.*, 2001; Sen and Bhattacharya, 2001; Chatzidakis *et al.*, 2007; Valor, 2008). Consumers' responses to CSR have been less carefully analyzed in economics, perhaps because there is wide gap between positive attitudes toward social responsibility and actual purchase behaviors. Opinion surveys reveal that there is a growing interest of consumers in the use of socially responsible technologies by companies (Doane, 2001). According to MORI (2000), 70 per cent of European consumers declare that they are willing to pay more for a product

[1] Quoted in Renaut (2003).
[2] Such incorporation can be material as in aerosol products with no fluorocarbons, or just symbolic as in fair-trade coffee.

which they perceive as ethically superior and 66 per cent declare that a CSR claim has triggered a purchase at least once in the past year (Hines and Ames, 2000). Yet, market shares remain quite low: French consumers and U.S. consumers spent only 1.71 Euro and 1.14 Euros respectively per year on purchases of fair-trade products in 2005, as against 19.02 Euros for the Swiss or 4.62 Euros for the British (Poret, 2007). The current survey presents the economic approach to this attitude-behavior gap. It complements marketing- and psychology-based insights into this question, by focusing on the two main economic barriers to CSR consumption: *(i)* the consumers' subjective valuation of CSR, and *(ii)* the information asymmetry between companies and consumers. Understanding and breaking down these barriers is a key issue, because companies' involvement into social responsibility is partly determined by the prospect of not loosing profits or expanding market opportunities.[3] In this perspective, we show that the development of CSR may be favored by appropriate consumer policies.

From the economist's point of view, 'CSR products' are both private goods and public goods. Their consumption produces some private hedonic benefits, but consumers can also derive utility from knowing that the firm is committed to care for the well-being of their suppliers and their employees or for the environment, *i.e.*, that it produces some public good alongside the product supply chain (Besley and Ghatak, 2007). Whether the consumption of CSR products leads to additional welfare gains for consumers, as compared to standard products, depends on two conditions. First, consumers must grant some value to the public good aspect of their purchase. Second, they must be well informed about the quantity of public good that has been incorporated into the product during the production process. The current paper discusses in details these two conditions.

The decision to purchase a CSR product is primarily determined by the consumer's willingness-to-pay (WTP) for CSR. The WTP is a monetary measure of her preference for this product attribute. It depends on two parameters of her utility function: the marginal utility of income and the marginal utility of CSR. The latter is determined by her 'social

[3] Corporate social responsibility may then be motivated by two lines of arguments: pure, intrinsic, altruism on the one hand, which often requires that part of stockholders' expected benefits be sacrificed; expanding sales by a strategy of product differentiation, on the other hand. Accordingly, the management literature makes a clear distinction between altruistic and strategic CSR. Lantos (2001) makes a finer distinction between *ethical* CSR – avoiding societal harms –, *altruistic* CSR – doing good works at possible expense to stockholders –, and *strategic* CSR – good works that are also good for the business. From the consumer's point of view, it may indeed matter whether he perceives the firm involvement into socially responsible activities as purely strategic or driven by genuine altruism.

preferences', which refers to her propensity to internalize the effect of her own actions on others' welfare. We first show how social preferences are revealed by economic experiments using actual monetary incentives. This literature suggests a first explanation for the attitude-behavior gap: most (if not all) measures of attitudes toward ethical consumption are not incentive compatible. We then trace social preferences back to three important motives: altruism, self-image and social image. Self-image concerns are important for those individuals who want to reassure themselves that they are good people by contributing to the provision of public good. Social image concerns may also drive the choice of CSR products, when their consumption is a means of buying social prestige or of avoiding social stigma (Bénabou and Tirole, 2010). We present empirical evidence that, in addition to pure altruism and self-image, social-image concerns strongly affect individuals' generosity, which should be more intensively used in the private and social marketing of ethical products. Last, following the recent advances in the economics of personality psychology, we relate social preferences to some personality traits. For psychologists, personality traits are "*relatively enduring patterns of thoughts, feelings, and behaviors that reflect the tendency to respond in certain ways under certain circumstances" (Roberts cited in Almlund et al., 2011).* Interestingly, some traits have been linked to the individual propensity to donate to charities or to engage in social activities. As personality traits have been shown to be sensitive to interventions, especially during early childhood, education is a means of favoring the consumption of ethical products (Borghans *et al.*, 2008). However, well-developed social preferences will not translate into actual purchase decisions for consumers with a high marginal utility of income, *i.e.* for the less well-off, as the latter reduces their WTP.

In addition, a high WTP for CSR products will lead to a purchase only if consumers have accurate information about who has made the product, and how it has been made. That the production process followed socially responsible procedures is largely a credence attribute: its presence cannot be verified by a careful and low-cost pre-purchase inspection, as it would be the case for a 'search attribute', or by the repetition of consumption experiences.[4] This raises problems of information asymmetry between consumers and firms, and the latter are likely to develop strategic behaviors on the supply side of the market. Since consumers with well-developed social preferences are often willing to pay more for a CSR product, unsubstantiated

[4] Of course, in a time of global and connected knowledge, motivated consumers could check the level of CSR embodied in a good by searching for information about the economic, environmental and social policy of the producers. But, there is no doubt that consumers rarely verify these attributes for daily purchases. This would consume too much time and cognitive resources.

claims may proliferate and cause *adverse selection*, whereby consumers are not able to distinguish the true from the false CSR products. As a consequence, since producing the former is generally more expensive, the true CSR products will be selected out of the market (as in the market for 'lemons' described by Akerlof, 1970). Labeling is a natural solution to adverse selection. A key distinction between simple communication (the so-called 'green-washing') and labeling is that the latter requires a reputable certification agent whom consumers can trust (Caswell and Mojduszka, 1996). Labels transform credence attributes into search attributes. They favor the emergence of a separating market equilibrium, whereby consumers with social preferences are matched with CSR-firms, and consumers without social preferences are matched with non-CSR firms. Although the literature on labels is mainly theoretical, we present some recent empirical results from laboratory experiments that evaluate the effect of labels on consumers under different label regulation rules. Last, we point several limits to the use of labels, which essentially relate to biases in the consumers' perception and treatment of information. This suggests that the proliferation of labels should be avoided, and that labels should be unified and carefully regulated by public authorities,

The reminder of the paper is organized as follows. Section 2 focuses on consumers' social preferences. Section 3 analyzes the information issue, and the role of labels. Section 4 concludes on the role of consumer policies in the development of CSR.

2 Consumers' social preferences

2.1 Social preferences and the willingness-to-pay for CSR

When a consumer purchases a CSR product, she makes an indirect donation, *via* the producer, to the beneficiaries of CSR activities (*e.g.* communities of farmers, employees etc.). Individuals with social preferences internalize the amount of this indirect donation in their utility function and their utility is increased accordingly.

More formally, suppose that the consumer's utility function is linear in the product characteristics. Two varieties are available on the market. They are characterized by the amount d of donation that they incorporate and another attribute x. The donation d is a measure of the CSR activity of the firm. For the standard product, d=0. We suppose that both products have the same level of x. If the consumer does purchase the standard product, then her utility is:

$$U_0 = \alpha(I - p_0) + \beta x$$

where I is her income and p_0 is the price. α is the marginal utility of income and β is the marginal utility of the other characteristics. If she purchases the CSR product, then her utility will still depend on her remaining resources – her income *I* less the price paid p_1 –, the other attribute *x*, but also on the amount of CSR that has been incorporated into the product, *d*:

$$U_1 = \alpha(I - p_1) + \beta x + \gamma d$$

where γ is the marginal utility of CSR. The more developed are the individual social preferences, the higher is her γ. She chooses the CSR product if and only if:

$$U_1 \geq U_0 \;\; i.e. \;\; \frac{(p_1 - p_0)}{d} \leq \frac{\gamma}{\alpha} = WTP(CSR)$$

Here $(p_1\text{-}p_0)$/d is the price premium per unit of CSR (in general $p_1 > p_0$). γ/α is the Willingness-To-Pay (WTP) for one unit of CSR. It equals the ratio of the marginal utility of CSR and the marginal utility of income. The CSR product will be preferred only if the price premium is lower than the WTP.

If the marginal utility of income is high, which is the case for the less well-off, then the WTP is likely to be low. This may explain why the consumption of fair-trade or ethical products is more developed in high income households. Price subsidies to CSR products may then help to reduce the price premium, and may render these alternatives more attractive to low-income households.

The purchase of a CSR product is more likely when the marginal utility of donation is high. This depends on the individual's social preferences. Because a correct measure of individuals' social preferences must be based on incentive compatible mechanisms, we first describe how social preferences are elicited in canonical economic laboratory experiments. While the term 'social preferences' is helpful to coin a number of observed donation behaviors, it is not explicit about the motivations underlying the donations. Hence, we present three important motives that contribute to social preferences: altruism, self-image and social image. Last, we suggest that social preferences are related to personality traits on which education policies can act.

2.2 Experimental measures of social preferences

In the textbook version of the *homo economicus* paradigm, people pursue their self-interest and seek happiness for themselves only. Greater generosity has strategic reasons only. Yet, experimental evidence reveals that the generosity of individuals is largely driven by non-pecuniary reasons.[5] Two types of games are often used to elicit individual social preferences in an experimental context with real monetary incentives: the D*ictator game* and the P*ublic Goods game*.[6]

The Dictator game is a simple bargaining game (see Forsythe *et al.*, 1994, for a review of the literature). Two players face a pie that represents the total amount of money available. Player 1 (the Dictator) decides how to divide the pie between himself and Player 2 (the Receiver). The latter cannot reject this division and she knows that she will never play again with Player 1. Although Player 1 has no strategic incentive to share the pie with Player 2, more than 60 per cent of the subjects in the role of Player 1 leave a strictly positive amount to Player 2 (but this amount is always lower than half of the pie). The mean donation by participants in laboratory experiments is about 20 per cent of the pie (Camerer, 2003). The Dictator game provides an evaluation of the relative importance of social preferences for Player 1, as there are no present or future monetary benefits to expect from sharing the pie. This experimental situation corresponds to a situation in which individuals decide to give to non-profit associations from which they will almost surely never receive any return in the future. Donations to charities that operate in distant countries, such as *Médecins sans Frontières* provide an 'out-of-the-lab' illustration of the Dictator game.

In the canonical Public Goods game, individuals are matched in groups. All individuals in the group receive initially the same endowment, and they know that they can individually invest into a public good. All individuals in the group decide simultaneously, without discussions and debates, which amount they should invest into the production of a public good. These individual contributions are added up, and this social investment is multiplied by

[5] In *The Theory of Moral Sentiments*, Adam Smith views empathy and reciprocity as necessary conditions for the existence of social exchange. Humans are naturally other-oriented: "How selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in the fortunes of others, and render their happiness necessary to him, though he derives nothing from it, except the pleasure of seeing it" (Adam Smith quoted by Vernon Smith, 1998).

[6] Social trust (How much do I trust others?) is another dimension of social preferences. It is often elicited through a *Trust game* designed by Berg *et al.* (1995). Although *a priori* social trust should not be related to the consumption of CSR foods, it may perhaps play a role in consumers' beliefs about the trustworthiness of the recipient. Bekkers (2007) finds a positive effect of generalized social trust on donations to non-profit organizations.

a number higher than one and lower than the number of participants in the group. The resulting sum – the public good – is then divided equally between all group members, whatever their initial contributions.[7] As a consequence, at the level of the group, the social return associated to an investment into the public good is higher than one. From the group point of view, the optimal decision is that all individuals invest their total endowment into the public good. However, for each individual, the optimal decision is to invest zero into the public good and to let the others contribute: an individual is always better off when others contribute but not him. Since the 'selfish' optimal decision is to free-ride, if individuals had no social preferences, the contribution to the production of the public good should be null. However, experimental evidence shows that most individuals invest into the production of the public good, sometimes up to their total initial endowment. The total investments into the production of the public good are on average between 40 per cent and 60 per cent of the social optimum (see Ledyard, 1995, for a survey). Andreoni (1988) shows that in repeated Public Goods games, learning (repetition effects) and strategy do not explain much of individual behaviors. The data are rather consistent with the existence of social preferences. This type of experiment corresponds to situations where individuals can benefit from their own generosity, and from the generosity of others. Gifts to environmental associations such as WWF or Greenpeace exemplify this kind of situation.

Empirical evidence from the Dictator and Public Goods games suggest that individuals do no behave as selfish *homo economicus*. Many people accept to 'trade' private monetary gains for donations, because caring for others increase their own welfare. Such behaviors reveal social preferences. We now examine some deep psychological motives that determine social preferences.

2.3 Opening the black box of social preferences: altruism, self-image and, social image

Donation behaviors are observed even when the identity of dictators and recipients is anonymous in the Dictator game, or the level of individual contributions is not public

[7] More formally, let E be the initial endowment of player i, d_i her individual investment into the public good, and λ the collective rate of return. Then, the individual return to investment is $\Sigma_j \lambda d_j/n$, where n is the number of group members. Then, the resulting monetary benefit for individual i is $E_i^* = E + \Sigma_{j \neq i} \lambda d_j/n + d_i(\lambda/n - 1)$. Since $\lambda/n - 1 < 0$, an individual who would just like to maximize her benefit with respect to d_i will choose not to invest; she is sure that she will get at least her initial endowment. If all individuals invest their initial endowment, then they all receive $E_i^* = \Sigma_j \lambda E/n = E\lambda > E$ (since $\lambda > 1$). While this cooperative strategy is Pareto-superior, it is not a Nash equilibrium of the game.

information in the Public Goods game. In these games, donation behaviors are driven neither by strategic concerns nor by social image concerns, *i.e.*, the individual reputation in the group. Here, the literature considers that social preferences are motivated by purely altruistic or self-image concerns.

Studies of Public Goods games traditionally assumed that behaviors were driven by pure altruism, whereby an individual's utility increases with the utility of others (Becker, 1974). Andreoni (1990) argues, however, that individuals also value their individual contributions per se. This is the 'warm-glow' effect, which is probably related to self-image concerns.[8] The latter has been recently considered by Bénabou and Tirole (2011). Their main hypothesis is that we do not know for sure who we are. We have several conflicting identities, and we have preferences over this set of identities: in general, we prefer to identify ourselves as generous and altruists, rather than greedy and selfish. This uncertainty can be solved by observing our own actions, which serve as signals about our own identity. As such, actions have indirect benefits, and these benefits may influence our choices, especially if our identity is quite uncertain (*e.g.*, for teenagers and young adults). A number of pieces of evidence demonstrate that warm-glow and (potentially) self-image concerns are important.[9]

Dana *et al.* (2006) propose a variant of the Dictator Game, wherein Player 1 (the Dictator) can exit the game for 90 per cent of the initial endowment after having made the division of the pie. If they choose to exit, Player 2 (the Receiver) is not told about the game and receives nothing. A significant fraction of Dictators exerts the exit option, even if playing the game may yield a higher monetary payoff (up to 100 per cent of the endowment) than the exit option (only 90 per cent). They are willing to pay 10 per cent of the endowment to leave the Receiver under a veil of ignorance, while they could merely give these 10 per cent to the Receiver. They do not want to appear unfair to the recipient, even if they do not know him and cannot be identified. They may give only to appear fair to themselves. These Dictators are not motivated by altruism, but by self-image concerns.

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[8] Using the notations of footnote 7, let E_i^* be the final monetary gains of individual i, and $\Sigma_j \lambda d_j$ the amount of public good that has been produced by the group. Pure altruism is illustrated by the following utility function $U(E_i^*, d_i; d_j, j \neq i) = E_i^* + v(\Sigma_j \lambda d_j)$, where v(.) is the increasing concave utility of the public good. The warm-glow effect can be modeled by adding a sub-utility function w(.), such that: $U(E_i^*, d_i; d_j, j \neq i) = E_i^* + v(\Sigma_j \lambda d_j) + w(d_i)$.

[9] We here present only the direct evidence based on experiments. Ribar and Wilhelm (2002) provide indirect evidence based on an econometric analysis of 'real world' data. If there is no warm-glow effect, then individuals do not value their own contribution to the public good. Hence, their contribution should fall to zero as the number of potential donators (the size of the group) increase: my marginal contribution to the public good does not matter if I believe that many other people will contribute in order to reach an acceptable level of public good provision. Using American data on private and public donations, Ribar and Wilhelm find that there is no crowd-out effect. Individual donations do not decrease with the number of donators.

Crumpler and Grossman (2008) design another Dictator game experiment, where Dictators initially choose a recipient among a list of charities. Their initial endowment is $10, and they are informed that a third party – the 'proctor' – will compensate their donation, so that the charity will receive neither more nor less than $10. Here, pure altruists have no incentives to give, as for them only the final contribution to the charity matters and it is independent from their choice. Yet, participants donated, on average, 20 per cent of their endowments and approximately 57 per cent of the participants made a donation. The importance of self-image concerns is also demonstrated by variants of Public Goods games. For instance, Park (2000) frames the choice of the investment into the public good positively in one treatment, by telling the subjects that their contribution will make others better-off, and negatively in another treatment , by telling them that keeping the money will make others worse-off. In the first case, the positive framing of the choice renders the warm-glow benefits more salient. Individuals give significantly more than under negative framing. That framing has an impact on donations is not consistent with pure altruism. The warm-glow hypothesis can rationalize this result.

Pure altruism and self-image concerns are important motives for social preferences. Social image concerns – the way we think that others judge us in everyday interactions – have also received some attention. Social image is a strong incentive to engage in socially responsible consumptions. As emphasized by Bénabou and Tirole (2010), buying a hybrid car or installing solar panels on the roof of a house may be more rewarded, in terms of social image, than buying an energy-efficient furnace that will never be seen. In Dictator games, making donations public increases the amounts donated. This appears clearly when only a small number of categories into which the donations fall are publicized, e.g. [1,100[, [100,500[, 500 and more. People then tend to make donations very close to the lower bound of the categories, especially for big donations. Part of these donations are undoubtedly motivated by prestige (Harbaugh, 1998). Soetevent (2005) analyzes donations to churches in either 'closed' collection bags or open collection baskets and found an increase of donations by 10 per cent when baskets are used. An increase of donations is also observed in laboratory Dictator games when donations are made public (Ariely *et al.*, 2009). Removing the anonymity of individual investment choices in Public Goods game increases the contributions (Andreoni and Petrie, 2004, Rege and Telle, 2004).

The effect of social image on socially responsible consumptions depends on the market share of CSR products. This has some consequences for consumer policies. Many States have implemented subsidies to environmentally responsible consumption, especially for durable goods (cars, eco-labeled houses, etc.). Social image concerns imply that these subsidies are less useful when few people or, on the contrary, almost everyone participate to consumption. When few consumers opt for social responsibility, social distinction is still an important motive for doing it. This is all the more true, that CSR products have generally higher prices.[10] When almost all consumers choose social responsibility, then there is a stigma attached to not doing it and peer pressure may force consumers to adopt CSR-products.[11] However, social image concerns alone are unlikely to generate a significant move of consumers toward CSR products. For this to be observed, the real price of CSR products should fall, as a consequence of a rise in income for the less well-off consumers, or a fall in the production costs of CSR products. A fall in cost may somehow contradict the objective of CSR, if it is obtained at the expense of the corporate employees or suppliers.

Social psychologists have long recognized that a number of altruistic behaviors are influenced by internalized standards of conduct. "People sometimes act altruistically because *this is the right thing* to do in a given situation. On other occasions, however, they might help someone else because they empathize with him" (Berkowitz, 1972). Social image concerns are thus related to social norms of consumption. As such, the expression of altruistic preferences is likely to differ from one social group to another. The higher social classes will perhaps value donations to humanitarian causes and the consumption of fair-trade or organic goods, while members from the lower and middle classes may attach more importance to the time one gives to the community.[12] If this is the case, then games with money incentives will tend to underestimate the altruism of the latter.

[10] The consumption of CSR products does not only signal how attached to the public good the individual is, but merely her social status. Social image concerns may thrust the adoption of socially responsible ways of consuming, at least for well-off consumers, but they also generate negative externalities in the short-term: if socially responsible consumption buys social prestige, then those individuals who cannot afford these material signs of social responsibility may feel worse.

[11] Vermeir and Verbeke (2006) find in a sample of 456 young consumers surveyed about their attitudes and intentions towards sustainable food products that experiencing social pressure from peers increases intentions to buy despite negative attitudes. Hence, social pressure can be a driver of purchase even if the consumer like less the CSR product than the standard one.

[12] Simon (1993) already noted that identification to a community favors altruistic behaviors toward the other community members.

A realistic approach to the measurement of social preferences should take into consideration the social context of choice (social norms, membership of a specific social group, values and moral norms) and should disentangle the three main motives underlying social preferences: the self-image concerns, the social image concerns and altruism. As individuals' self- and social-image concerns seem to matter a lot, public or private policies can use those concerns to promote generosity of consumers and then sustainable consumption. Additionally, social preferences depend on the recipient's identity and behaviors, and on values and moral norms. For instance, a consumer who believes that people in poverty "have just what they deserve" will tend to give to different causes than the one who believe that poverty is just bad luck (see Fong, 2007 for experimental evidence in a Dictator game). Wymer (1997) and Bennett (2003) find that personal values are an important determinant in the choice of the charities to which individuals choose to give. For instance, someone who places a higher importance on health is more likely to give to charities that are engaged in health programs.

2.4 Social preferences and personality traits

Bénabou and Tirole (2010) note that the social preferences are likely to be generated by some deeper psychological processes of construction and preservation of the self. This is illustrated by Konow and Earley (2008), who find a positive and significant correlation between generosity and long-run happiness (life satisfaction) in a Dictator game, mediated by the healthiness of individual psychological functioning. In the psychological literature, healthy psychological functioning is defined by the possession of a set of *personality traits*, among which there is self-acceptance, *i.e.* the ability to embrace all facets of ourselves, be they positive or negative. Personality traits are more generally defined as "enduring patterns of perceiving, relating to, and thinking about the environment and oneself that are exhibited in a wide range of social and personal contexts" (APA, 2000, p. 686). Hence, personality traits are stable patterns of thoughts and feelings that are revealed by behaviors (Almlund et al., 2011). They are generally measured through psychometric tests, which use a number of questions related to thoughts, feelings and behaviors. These questions are designed so that answers tend to be correlated through a single common factor, which is the trait one wants to measure (this is called 'construct validity'). They must also discriminate between individuals, so that people do not end with the same score value (this is called 'discriminant validity'). Last, they must predict other behavioral responses (this is called 'predictive validity'). As there is no firm

consensus about the traits that exhaustively define a personality, a number of different taxonomies have been proposed in the literature (see Almlund et al., 2011, about the measurement problems in personality psychology). Despite this lack of theoretical structure, personality traits are interesting from an economist point-of-view, because they may provide direct empirical measures of preferences (Caplan, 2003).

More specifically, studies in personality psychology suggest that those individuals who are likely to engage in pro-social behaviors (donations, volunteerism, etc.) in the absence of material or strategic benefits, exhibit a 'pro-social personality' (Penner *et al.*, 1995; Graziano and Eisenberg, 1997; Van Lange, 2000). This pro-social classification of personality clearly echoes the concept of social preferences used by economists.

Several specific psychometric scales have been developed to measure pro-social personality or some dimension of it: empathy as defined by Davis (1980) (for evidence, see Eisenberg *et al.*, 1989; Penner, 2002; Bekkers, 2005; Einolf, 2008; Bekkers and Wilhelm, 2010, altruism as defined by Gordon (1976) (for evidence, see Bekkers and Schuyt, 2008), social responsibility (for evidence, see Reed and Selbee, 2002; Bekkers and Schuyt, 2008), and social value orientation as defined by Van Lange *et al.* (1997) (for evidence, see Van Lange *et al.*, 1997; Bekkers, 2006).[13] Nevertheless, the value of these scales for the empirical identification of preferences is rather weak. Their predictive validity is generally assessed by correlations with pro-social behaviors or hypothetical games. In most studies, these correlations are not normalized so as to control for the impact of factors that obviously affect individual choices, *e.g.* the time and budget constraints, and for the lack of monetary incentives.[14] More attention should also be devoted to the difference between personality traits and values. Values differ from personality traits, as they reflect individual differences in how people *want* to think, feel and act, not in how they *actually* think, feel and act (Borghans *et al.*, 2009). The above scales do not generally make this distinction, as they rely on both hypothetical statements and actual outcomes. One may then wonder whether pro-social personality can be predicted by personality traits drawn from a more general taxonomy

[13] Pro-social behaviors, which reveal pro-social personality, are also positively correlated with age, education, income, parental education and parental volunteering in the past. Mixed evidence is found for the household structure but married people or people with children are generally more pro-social. No significant correlation is found between pro-social behaviors and gender. See Bekkers and Wiepking (2011) for a survey. Nevertheless, these empirical correlations must not be interpreted as robust evidence that pro-social personality is influenced by these variables in the same way. For instance, the relationship between income and pro-social behaviors may just reflect the impact of the marginal utility of income, in a population of individuals that would have the same personality, *i.e.* the same social preferences.

[14] One exception is Offerman *et al.* (1996), who show that contributions increase in a Public Goods game with individual scores on a pro-social orientation scale.

(Gergen *et al.*, 1972). This would limit the proliferation of candidate variables, and give more solid foundations to the concept of pro-social personality.

In this perspective, the literature has recently considered the 'Five Factor Model of Personality', proposed by Costa and McCrae (1992), which aims at summarizing personality by five traits. One of these traits only, agreeableness, has been found to be positively correlated to pro-social behaviors (Graziano and Eisenberg, 1997). Agreeableness characterizes inter-personality tendency (agreeableness consists of six dimensions: trust, straightforwardness, altruism, compliance, modesty, tender-mindedness). The empirical literature in experimental economics confirms this finding. In a Public Goods game experiment, Perugini *et al.* (2010) find that agreeableness is positively correlated with contributions to the public good, and in a Dictator game experiment by Ben-Ner *et al.* (2004), agreeableness increases donations.[15] The latter also shows that extraversion, which is characterized by warmth, gregariousness, assertiveness, activity, excitement-seeking, and positive emotions, is associated with higher donations.

These personality traits are likely to be related to social preferences, and to predict how consumers value CSR. This is important for public policy making, as personality traits have been found to be important determinants of individual choices and outcomes. Heckman and Masterov (2007), Borghans *et al.* (2008), and Almlund *et al.* (2011) provide examples of social interventions in the childhood that changed the personality of disadvantaged children and improved their socioeconomic achievements. They argue that personality traits are sensitive to investments by parents and schools. Hence, if personality traits determine social preferences, and the latter affect consumer social responsibility, then early interventions through school programs may produce some returns in terms of increased social responsibility later in life. However, we are fully aware that this may appear as an attempt to shape children preferences, which do not respect the principle of individual sovereignty. We have two arguments here. First, if consumer social *ir*responsibility produces negative externalities, then some public intervention is justified. As the World Trade Organization rules prohibit for the moment specific taxes on non-CSR products, one has to use other policy tools. Second, children preferences are quite malleable. They are shaped by parental education, schools, and

[15] See also Ben-Ner and Kramer (2011).

the market. As long as parents are left with the option to exit, there is no reason to dismiss this proposal.[16]

However, empirical evidence on the relationships between personality traits and gift behaviors in experimental games is still scarce. In addition, socio-cultural variations in traits and social preferences have not been investigated systematically, as well as the socio-cultural distribution of personality traits. Further researches are needed to assess the interest of public investments in personality traits related to social preferences.

3 The impact of labels

Consumers may well have social preferences. If they cannot recognize a CSR-product from a non-CSR product, then consuming the former instead of the latter will bring them no additional pleasure. Consumers need to be perfectly informed about the type of product they purchase in order to make optimal choices.[17] This is the *raison d'être* of the labels. They inform consumers as well as firms' strategies. Labels thus modify the market equilibrium.

3.1 Labels to disclose corporate social responsibility

Differing from other product characteristics such as appearance, flavor or durability, the environmental or social quality of the production process is rarely observed by consumers. CSR is credence attribute, which means that consumers are not informed about it before purchasing the good, or when they consume (Darby and Karni, 1973; Nelson, 1974). The asymmetry of information between sellers and consumers implies that the latter are not able to purchase the goods that best match their preferences. As a consequence, there are welfare losses, which are likely to be larger for those individuals who have a higher WTP for CSR (Bonroy and Constantatos, 2004). Therefore, the market equilibrium is not efficient. This is indeed a general result from the neo-classical approach to consumer economics: *consumers are always better off when they have more information* (Teisl *et al.*, 2001).

[16] In France, they are already interventions at school to make children aware of the dangers of the pollution, etc. Here, we suggest that teachers should not only inform children, and try to socialize them to values of social responsibility; they should also propose optional programs, joint with social psychologists, to work on children *actual* behaviors.

[17] Polls show that European consumers would like to know more about the origin and the production process of food products, and they would appreciate to have this information on the packaging (Guillon and Juliot, 2001).

The regulation of production processes by production standards and norms is a way to reduce consumers' uncertainty about the type of product they purchase. All States have laws that oblige producers to respect some production standards. However, it is not easy to define standards that correspond to all producers and it is even more complicated to find international social standards that would be accepted by all countries. The widespread alternative is a market approach based on voluntary certification and the labeling of production standards. Labeling CSR is a way to differentiate products on purchase points. It is a low-cost means of giving consumers direct information (National Academy of Sciences, 1991). Labels help to restore the symmetry of information between sellers and consumers. As such, they may increase market efficiency and consumer welfare (Golan *et al.*, 2001). [18]

There are two classes of labels: 'public labels' and 'private labels'.[19] We define public labels as labels that are certified by a third-party on the basis of criteria that are supposed to be known by consumers. This third-party can be a governmental agency (*cf.* the Blue Angel label in Germany or the EU eco-label) or an independent organization (*cf.* the Fair-Trade label or the AB organic label in France). Regarding CSR, the most well-known public labels are the fair-trade labels Max Havelaar and Transfair, which guarantee good working conditions for small farmers in the developing world. Many other fair-trade labels exist and they are all certified by an international organization named "Fairtrade Labeling Organizations" (FLO). Labeling standards include a minimum price for producers and a fair-trade premium, safe working conditions, and the prohibition of child labor and discriminations.

Private labels often take the form of 'logos' incorporated in the packaging by the producers or the retailers themselves, claiming messages such as "This product respects the environment" or "We valorize long-term relationships with producers". These claims are unsubstantiated, since they are not certified by a third-party and cannot easily be verified. As private labeling does not require any certification by a trustworthy organization, consumers do not know the true degree of compliance of the company with their own environmental and social norms and values. Hence, firms have a strategic incentive to cheat and claim that they are highly involved in CSR, even if they are not. There are expected benefits from cheating,

[18] Labeling is also an efficient way to reveal consumer preferences for CSR in a non-experimental context. Of course, purchase behaviors will not reveal the social preferences of all consumers, as there are financial and hedonic barriers to the purchase of CSR-products. Although people with low income tend to give more (in proportion of their own income) to social causes, they are less likely to purchase goods with environmental or social labels because of their prices or their tastes. See also the Section 3.3 about the segmentation of the market.
[19] See Kuhn (2005) for details on these two forms of labeling.

which include higher market shares and higher prices, for no costs since they do not have to design and engineer an environment- or people-friendly production process. This generates an adverse selection problem. A number of consumers will end by considering that all private labels just represent 'green-washing' (especially if there are press reports about opportunistic behaviors). True CSR firms will be driven out from the market, as they have higher production costs, and the true CSR products are likely to disappear. From a theoretical point-of-view, this adverse selection problem may be solved by third-party certification, or by the combined effect of market discipline, reputations and the awareness of media, NGO activists and consumer associations, *i.e.* by self-regulation. The newspaper *The Economist* suggested in an answer to the 'No-Logo' movement that brands play the same signaling role as labels, because "they make firms accountable to consumers", and "brands of the future […] will also have to signal something wholesome about the company behind the brand […] social responsibility".[20] If a private CSR label becomes a salient element of the brand identity, then the producer faces potential reputation costs if it cheats. One key element here is that the reputation costs will depend purely on consumer reactions to changes in company reputation. The reputation effect is likely to dominate in markets with a limited number of competitors, barriers to entry, and well-established brands. Here, the rents are so high that the firm will not take the risk to lose its position.

Third-party certification avoids, in theory, this problem. Nevertheless, another problem of adverse selection may appear if the certification agency has opportunistic behaviors that induce skepticism about the label trustworthiness. The role of the trustworthiness of the certification agency is key regarding the effect of the label on consumers' behavior. Depending on the frequency and accuracy of controls, public labels can be more or less trustworthy. Section 3.3 gives additional insights into these issues.

For the neo-classical *homo economicus*, the effect of labels are twofold. They inform consumers about the product quality. They reveal therefore their Willingness-To-Pay (WTP) for CSR, which is the money metric of the welfare gains that it generates. On the other hand, labels differentiate the product varieties that are offered on the market. Choosing to label a product is a strategic decision, because it lowers competition between firms, but it also

[20] See *The Economist*, "The Case for Brands" (http://www.economist.com/node/771049/print) and "Who's wearing the trousers?" (http://www.economist.com/node/770992/print), September 6th 2001, from the print edition.

reduces the size of the market. We now present some empirical results about consumer WTP for CSR-labeled products. Then, we analyze the effect of labels on the market equilibrium, focusing on whether labeled products co-exist on the market with unlabeled products (we call this a separating equilibrium). We also consider the consequences of the credibility of the label, which comes down to consider the impact of the credibility of the certification agency on the market equilibrium. Finally, we will discuss some limits in the use of labels that stem from bounds on consumer rationality and biases in their perceptions.

3.2 Effect of labels on consumers' willingness to pay

The consumer WTP for CSR labels can be elicited by two types of methods.[21] First, there are methods based on hypothetical choices. Several varieties are presented to individuals. They are differentiated along a number of dimensions, including the presence of a label and the price. Individuals then state their preferred choice and an econometric analysis of their answers produces estimates of the WTP for the attribute 'label'. This method is costless and can be used as a first step analysis of the potential effects of a labeling policy on consumers' behaviors. One important drawback is that the estimated WTP is certainly biased, as answers are purely declarative. We imagine well that, for reasons of social desirability and because it is only cheap talk, most consumers exhibit a strong preference for CSR.

Experimental auctions are a second type of method. Here, the subjects have to make choices that have actual monetary consequences, and they often go back home with the products for which they have expressed a strong preference. These methods yield, in theory, unbiased estimates, because they are based on monetary incentives. However, they cost more in time and money. As such, they generally involve smaller samples and are less representative of the general population.[22]

[21] A third method that we will not detail in the current survey would be to analyze actual purchase behaviors by estimating econometric models of demand for differentiated products. This requires that varieties with labels be already purchased and, for reasons of statistical robustness, that a large number of purchases be observed. This method produces estimates that can be used to simulate the impact of labeling a product that was previously unlabeled.

[22] These methods are also used to identify the WTP for organic or Genetically Modified (GM) food. Although there might be an altruistic dimension in the preference for organic and the refusal of GM food, the health dimension is by far the most important (see, *inter alia*, Huang, 1996, McGarry Wolf *et al.*, 2002).

Studies based on hypothetical choices conclude unambiguously that consumers are ready to pay more for labeled products. For instance, Blend and van Ravenswaay (1999) find in a representative survey of American households that over one-third of consumers would be willing to pay a premium per pound of $0.40 for eco-labeled apples, where the label certifies that the apples have been produced with sustainable agricultural practices. In this study, , the consumers choose between two alternatives: their habitual purchase choice and the 'new' and hypothetical eco-labeled apple. However, there is a specificity of food products: the willingness to pay for a labeled product is highly correlated with its perceived hedonic quality. Loureiro *et al*. (2002) also elicit preferences for an eco-label, but they control for the consumer's perception of the hedonic quality of the eco-labeled apples. They identify separately the WTP for the hedonic quality and the WTP for the eco-label. They find a much smaller premium of $0.05 per pound only for the latter. McCluskey and Loureiro (2003) replicate this study with a different label that indicates whether the apple has been produced by farmers who provide fair and safe working conditions. In addition, individuals were asked to state the relative importance of a series of nine characteristics in choosing apples: price, freshness, taste, color, variety or type of apple, size, quality, where and how the apple was grown. Again, although answers reveal that consumers are willing to pay a premium for CSR apples, they also condition their purchase to the perceived hedonic quality of the apple. In this study, the most important characteristics of an apple in consumers view are its taste, its quality and its freshness, while how the apple was grown is next to last.

Some hypothetical choice studies also examine the effect of labels with varying levels of performance. For instance, Hicks (2006) tests the impact of a fair-trade label on consumers' WTP for coffee, when the percentage of poor farmers participating to the production process and the farmer income guaranteed by the label vary.[23] He finds that consumers are willing to pay a premium for the labeled coffee over the unlabeled coffee, but only when the percentage of poor farmers included in the program is high enough. In a similar study, Basu and Hicks (2008) show that, for a given percentage of participating farmers, the consumer WTP is positively related to the income guarantee associated with the label, but only up until a critical level. After this point, perhaps surprisingly, the WTP decreases. They explain this result by a consumer aversion to poverty and relative deprivation. This would lead consumers to consider

[23] There are also some studies on fair-trade coffees based on hypothetical choices. De Pelsmacker *et al.* (2005) find that Belgian consumers are ready to pay a premium of 10% for a fair-trade coffee. Loureiro and Lotade (2005) conducted a survey in four locations in the State of Colorado in the U.S., which yields similar results.

that the farmers excluded from the program are worse off when the income guaranteed to the farmers included into the program is too high.

Experimental studies often use the Becker-DeGroot-Marschak (BDM) auction mechanism to determine the WTP of subjects for a specific product (Wertenbroach and Skiera, 2002; Noussair and Ruffieux, 2004; Bougherara and Combris, 2009). In a BDM auction, a product is presented to the subjects with a description of its characteristics. One key point is that this description can be manipulated by the experimentalist, in order to identify the causal effect of information on individual behaviors. After the presentation of the products, all participants must simultaneously submit a monetary offer, in an envelope. They cannot communicate with each other, in order to avoid social interaction effects. The experimentalist then chooses a price at random in a distribution of prices that has been given to the participants before the experiment. Participants who have submitted an offer higher or equal to the price randomly drawn by the experimentalist receives the product and have to pay the price drawn. Participants who have made an offer lower than the price drawn by the experimentalist do not receive the product and pay nothing. In this set-up, if an individual submits an offer that is much higher than her true WTP, then she is at risk of paying a lot for a product she does not really like. If her offer is much lower than her true WTP, then she is at risk of not getting the product even if she would like to. Her interest is to submit an offer that is equal to her true WTP.

Using this method, Tagbata and Siriex (2008) test the effect of an organic label and a fair-trade label on the WTP for chocolate tablets. There are three phases in the experiment. In the first phase, subjects blindly taste four types of chocolate tablets. In phase two, the packages of the same four chocolates are presented to the subjects. One tablet has the organic label, another has the fair-trade label, the third one has both labels and the last one has no label. Subjects are not allowed to taste the chocolates and they are not informed that these chocolate tablets are the same as in the first phase of the experiment. In phase three, subjects taste the tablets and observe the packages, *i.e.* they observe the labels. In phases one and three, in addition to the elicitation of the subjects' WTP by BDM auctions, the experimentalist evaluates their overall hedonic preference (taste) for each product. In this experimental set-up, it is possible to disentangle the effect of the label from the effect of taste, and the effect of social preferences (the fair-trade label) from the effect of health preferences (the organic label). Chocolates with the organic or fair trade labels have a higher liking rating in phase

three as compared to phase one. They also attract a higher willingness to pay of the participants. The new information – "having a label" – therefore increases the subjective value of the labeled tablets. This result confirms that the WTP for labeled products is likely to be correlated with taste perceptions. However, some heterogeneity in individual preferences is observed. For about half of the subjects, labels do not matter when they make their offer, while it is an important choice criterion for the remaining half. Hence, the degree of social preferences exhibited by individuals seems to be a discrete individual characteristic – to be altruistic or not to be -, rather than a continuous characteristic.

A significant minority of consumers are ready to pay a premium for products with CSR labels. However, a number of them seem to consider CSR labels as a sign of hedonic or health quality. A majority of consumers have a low WTP for CSR, because they have weak social preferences, or their marginal utility of income is higher. The implementation of third-party certification is likely to modify consumer purchase behaviors. The new equilibrium that may emerge under a labeling policy will be separating, but the separation line is likely to be function not only of consumer social preferences, but also of their income, and their health and hedonic preferences.

Whatever the drivers of the separation on the demand side, there is a market segmentation that raises strategic issues for firms.

3.3 Effect of labels on market equilibrium

As some consumers are willing to pay a positive premium for purchasing CSR products instead of standard ones, firms may have some strategic advantage at increasing their commitment to social responsibility. In a meta-analysis of 95 studies, Margolis and Walsh (2001) uncover evidence of a positive correlation between the degree of CSR of companies and their financial performance. Frooman (1997) counts 27 studies in which companies known as socially irresponsible suffered from a loss of wealth. CSR investments have also been linked to the ability to secure greater access to capital funds. In the U.S., in 2003, 11 per cent of the professional funds were managed in portfolios that screen for ethical, environmental and other socially responsible practices (Social Investment Forum, 2003). Adopting a socially responsible attitude seems to be beneficial to firms, and this may explain

the growth of CSR investments. However, correlation is not causality, and it seems difficult to test with available business data whether adopting CSR practices has a positive impact on performance (Cavaco and Crifo, 2010). It may indeed be the case that more competitive firms are more able to adopt CSR standards, or that a third factor – for instance, operating in an innovative sector or well-developed shareholders' social preferences – explains both the company's ability to perform and its choice of social responsibility. There is a clear lack of causal empirical evidence about the link between CSR and companies' profits and strategies. As a consequence, we here present some selected results from theoretical studies. They yield predictions about the consequences of labeling on the market equilibrium, *i.e.* the companies' supply and profits and the consumers' welfare gains. We also present recent experimental studies on the consequences of the implementation of a CSR label on market outcomes.

- *When labels provide a perfect information*

Let consider a market wherein products can differ by their prices and by a one-dimensional credence attribute, *e.g.* the 'CSR attribute', that can be signaled by a label. We assume first that the information provided by the label is perfect. We will discuss the quality and the trustworthiness of the certification process in the next subsection.

A first set of papers use Hotelling's spatial competition paradigm to analyze corporate strategies. For instance, Conrad (2005) assumes that the consumers are randomly distributed along a [0,1] segment that represents their heterogeneity in social preferences: the closer to 1, the stronger the social preferences. There are two firms, which have to choose their localization on this segment, *i.e.* the amount of 'CSR attribute' they want to incorporate in their product, and a supply price. Given the price and the quality of the products, the consumers choose a firm in order to maximize their utility. The latter decreases with the price paid and their distance to the firm localization, as it is always the case in spatial competition model. The author also assumes that consumers are concerned by their social image (*cf.* Section 2.2.). A separating equilibrium is found and, unsurprisingly, the market share and the price of CSR products increase when social image concerns are more important for consumers. This basic framework can be enriched by introducing some heterogeneity in the cost structure of firms and by endogeneizing accordingly their labeling decisions. As firms must make investments in order to be certified, the firm with the most efficient cost structure will be more prone to invest in social responsibility (Crampes and Hollander, 1995; Amacher *et al.*, 2004). Certification costs may also have a strong impact on market segmentation. For

instance, Auriol and Schilizzi (2003) show that the label is a credible signal for corporate social investments only when the certification cost is high enough. This raises fairness issues: when certification costs are important, the prices of labeled products are rather high. As a consequence, a separating market equilibrium with both CSR and non-CSR products is much less likely to appear when consumers are poor or when the market is not very developed, even if most consumers have strong social preferences.

A second set of articles models CSR as the joint production of public good (or curtailment of public bad) and private good. For instance, Besley and Ghatak (2007) analyze a competitive market with identical firms. Consumers have heterogeneous preferences over a public good and a private good, and producing the CSR-product (a joint public *and* private good) implies higher marginal costs. At the equilibrium, some firms will produce the private good only, for consumers who have weak social preferences. Other firms contribute to the production of the public good and charge a higher price for the private good to reflect their contribution to the public good. Competition guarantees that the price charged by the CSR firms exactly finances the cost of the public good, since the price premium paid for the CSR product is exactly equal to the average consumer WTP for the public good: firms cannot neither charge a higher premium (competitors will take over its market), nor charge a lower premium (make losses). Once again, only those consumers who have strong social preferences and a low marginal utility of income buy the CSR product. This separating equilibrium improves the social welfare as compared to a situation where only private goods are produced.

An experimental study by Rode *et al.* (2008) mirrors somehow the modeling framework presented above. They organize a market where three firms and six consumers exchange units of a virtual good, which are converted into real money at the end of the game. One of the three firms has a higher cost of production because it complies with the conditions of an internationally recognized NGO fighting child-labor. This is the socially responsible firm, and the individual who is committed to play this firm makes a true donation to the NGO at the end of the game. As expected, this player offers higher prices than individuals playing the firms with the lower costs, whether labeling is possible (the research treatment) or not (the baseline treatment). When labeling is not possible, the consumers purchase at the lowest price, even if they know the costs of production for each offer. When labeling is possible, *i.e.* when consumers learn why there is a high-cost offer, then it gets higher market shares. There is an important heterogeneity in the label effect that may reflect differences in social preferences.

- *When labels are imperfect*

The objective of third-party certification is to provide objective and correct information. When third-parties can monitor perfectly all aspects of the company's production process declarations, and when the rate of information disclosure is high enough, the label is perfect enough (McCluskey, 2000). Nevertheless, frauds can be observed even when the certification agency is honest, because monitoring costs alter the quality of certification. The latter depends on the probability of controlling the firm and the intensity of the control and audit procedures. These two parameters are set by the certification agency. If the latter are too low, some firms will have an interest to try to cheat to get the label, even if they do not comply with the criteria asked by the certification organization. There is a probability of green-washing brown firms that can affect the credibility of all labels.[24]

Besides, the reputation of the certification agency is key for the consumers' trust (Caswell and Mojduszka, 1996). One solution to ensure trust in labeling is to control the certification agencies themselves (McCluskey, 2000). It then appears that all certifying organizations do not have the same trustworthiness regarding the efficiency of their monitoring procedures. For example, Albersmeier *et al.* (2009) find that the reliability of the German third-party certification of food chain safety is very heterogeneous, because the auditing procedures have not been standardized. An important issue is that there is some competition between certification agencies, and this may have consequences for consumers in terms of higher prices or lower confidence in labels. Hvide (2009) considers a market, where certification agencies compete for firms who want to apply for a label. A key condition of efficiency is that the certification fees correctly reflect the difficulty of the tests. In this situation, the price premium paid by the consumers is higher than when the certification agencies have the same standards and tests. Therefore, consumers must support the costs for the guaranty of quality and trustworthiness of the certification process. However, the problems of label credibility are mitigated in theory when one introduces reputation effects. In this case, a firm that cheats and is detected is likely to disappear from the market (see Section 3.1.). The probability of detection has a clear deterring effect (Besley and Ghatak, 2007).

[24] A discussion on the certification system Fairtrade Labeling Organizations International (FLO) and its credibility can be found in Ballet and Carimentrand (2006).

3.4 Limits to the use of labels

An important limit to the effectiveness of labeling strategies is that a label is generally a small part of the information set used by consumers when they have to choose between different varieties of a product. The information available at the time of purchase also includes prior experiences, media advertising, word-of-mouth information, nutritional labeling, brand reputation, other quality labels, all informational cues that are displayed on the packaging (colors, shape, health claims, etc.) (Caswell and Padberg, 1992). Given the amount of information that is available, labels may not always be correctly perceived by consumers. This is all the more true that there are now many labels on the market, with subtle differences between them.[25]

Marketing research has demonstrated for a long time that the accumulation of information creates a 'halo' effect, whereby individuals draw an impression of a product from a few pieces of information, and use this impression to infer the value of some other attribute. For instance, Tagbata and Siriex (2008) report that the WTP for chocolate is the same whether the product has an organic label, a fair trade label, or both, although the organic and fair trade labels refer to very different attributes. The effects of both labels are not additive and all that matters is to have a label or not (see also Ruffieux, 2004). This implies that there is a cluster of consumers with social, environmental and health preferences, which interpret labels as an overall quality grade, without making any distinction between the health, and the CSR aspects of quality. The 'halo' effect is potentially damageable if it is used by marketers to manipulate consumer perceptions. Chandon and Wansink (2011) present experimental evidence from the marketing literature that unregulated health claims about a specific nutrient are enough for leading consumers to believe that the product scores well on all nutrition aspects. While evidence about the use of a CSR halo by firms are lacking (the so-called greenwashing), this justifies a careful regulation of CSR claims. The 'homo economicus' is better-off with more information, because his/her unlimited cognitive capacity protects her from such errors of perception. But the 'homo sapiens' may perhaps be worse-off, because of systematic perception biases.

[25] In France, there are three organic labels, which are simultaneously a health and a CSR-guarantee: AB, the EU organic label, Demeter. The AB and EU labels tolerate the use of GMO in the foodstuffs for stock breeding. Regarding CSR, there are five labels at least: Max Havelaar, the Marine Stewardship Council, the CCP, Nature et Progrès, and the "Agriculture Raisonnée" (sustainable agriculture). There are some private retailer labels, such as "Agir pour l'Environnement" (« Act for the Environment », retailer: Carrefour). A number of quality labels guarantee the hedonic quality of the products, such as the AOC, the Label Rouge, and European labels guaranteeing the region of production.

As a consequence, truthful labeling is a necessary condition for the development of a significant market for CSR products that may satisfy consumers with well-developed social preferences. But, it is not a sufficient condition, especially if labels and claims proliferate. This call for the harmonization and unification of CSR labels, possibly at the EU level.[26] In addition, labeling is necessary but not sufficient because the effect of CSR information also depends on the consumers' perception of "congruence between their own characters and that of the company" (Sen and Bhattacharya, 2001). If they have well-developed social preferences and perceive a discrepancy between the 'nature' of the firm (shaped by its reputation and history) and its social initiatives, then they tend to perceive the latter as hypocritical or purely strategic (Becker-Olsen *et al.*, 2006). This may decrease their willingness to purchase the product, even if corporate social efforts and investments have been awarded by a label.

As a consequence, a complementary strategy is to develop a brand, whose name is enough to suggest several attributes (including CSR). One example is "Body Shop", which is associated to good practices in terms of research and development and choice of raw products. But while labeling is relatively easy to implement on the short term, brand building is probably a longer term strategy (20 years or more).

4 Conclusion

Approaching CSR from the consumer point of view provide rationales for the existence of a market for CSR products. In this view, the two main ingredients that may sustain the production of CSR goods are consumer social preferences and information disclosure of CSR characteristics of products. Regarding the first ingredient, the literature shows that consumers have heterogeneous social preferences and consumers with strong social preferences are more likely to purchase CSR products. Moreover, as socially responsible consumption is driven by social image concerns, in addition to altruism and self-image, developing on strong social norms of consumption may be sufficient to trigger the purchase of CSR products, even if individuals are not altruistic. Social image concerns may even drive non-CSR firms out of the market.

[26] One leading example of harmonization is the EU eco-label for industry and technology, that is already awarded for more than 25 product groups (but not food). See http://ec.europa.eu/environment/ecolabel/.

The disclosure of CSR information is key for the existence of CSR as CSR is a credence attribute of products. The consumption of CSR products is associated to additional benefits for consumers with social preferences in terms of utility/well-being only if the consumer is aware that the product has been produced according to CSR principles. This requires that a label indicates the CSR quality of the product. In fact, empirical studies reveal that a significant fraction of consumers are ready to pay more to consume products with CSR labels. Therefore, a separating market equilibrium may emerge whereby consumers with strong social preferences (and high income) buy CSR products and consumers with weak social preferences (or low income) buy non-CSR products. However, the credibility of the CSR label is an important issue. Some firms may cheat and look for green-washing, which generate an adverse selection problem if the label is not trustworthy. Public labeling is always better than private labeling. The credibility of public labeling requires that certification agencies monitor correctly firms, and be themselves monitored. Studies on imperfect labeling and on the untrustworthiness of certification agencies also suggest that monitoring costs and competition among the certification agencies may deteriorate the market efficiency. In markets with a small number of firms and barriers to entry, reputation effects are likely to deter frauds.

However, the perspective of market segmentation will not make all companies switch to social responsibility if the CSR market share remains low. The most likely equilibrium is that only consumers with high revenues and strong social preferences will buy labeled products at a higher price, while poor consumers or consumers with weak social preferences will purchase standard products at a lower price. Finally, while a separating equilibrium increases social welfare, it is not sufficient to drive-out of the market unethical firms. Government policies, combined with labeling, should help to eliminate these firms (see Davies, 2005, about child labor). A first solution is to subsidize CSR products. A second solution is to invest in children social preferences.

Bibliography

Akerlof, G.A. (1970), "The market for" lemons": Quality uncertainty and the market mechanism", *Quarterly Journal of Economics*, **84**(3): 488-500.

Albersmeier, F., H. Schulze, G. Jahn and A. Spiller (2009), "The Reliability of Third-party Certification in the Food Chain: From Checklists to Risk-oriented Auditing", *Food Control*, **20**(10): 927-935.

Almlund, M., A.L. Duckworth, J.J. Heckman and T. Kautz (2011), "Personality Psychology and Economics", *NBER Working Paper*, **16822**.

Amacher, G.S., E. Koskela and M. Ollikainen (2004), "Environmental Quality Competition and Eco-Labeling.", *Journal of Environmental Economics and Management*, **47**: 284-306.

Andreoni, J. (1988), "Why Free-Ride? Strategies and Learning in Public Goods Experiments.", *Journal of Public Economics*, **37**: 291-304.

Andreoni, J. (1990), "Impure altruism and donations to public goods: a theory of warm-glow giving", *The Economic Journal*, **100**(401): 464-477.

Andreoni, J. and R. Petrie (2004), "Public goods experiments without confidentiality: a glimpse into fund-raising", *Journal of Public Economics*, **88**(7-8): 1605-1623.

APA (2000), *Diagnostic and statistical manual of mental disorders: DSM-IV-TR*. Arlington, VA: American Psychiatric Publishing.

Ariely, D., A. Bracha and S. Meier (2009), "Doing good or doing well? Image motivation and monetary incentives in behaving prosocially", *American Economic Review*, **99**(1): 544-555.

Auriol, E. and S. Schilizzi, G. M. (2003), "Quality Signaling through Certification. Theory and an Application to Agricultural Seed Markets.", *Mimeo, University of Toulouse*.

Ballet, J. and A. Carimentrand (2006). Le Commerce Equitable: Des Labels à l'Ethique Relationnelle. Journées d'étude du GDR Economie et sociologie, March 23 & 24, 2006, Les nouvelles figures des marchés agro-alimentaires: apports croisés de l'économie, de la sociologie et de la gestion. Montpellier.

Basu, A.K. and R.L. Hicks (2008), "Label Performance and the Willingness to Pay for Fair Trade Coffee: A Cross-National Perspective.", *International Journal of Consumer Studies*, **32**: 470-478.

Becker-Olsen, K.L., B.A. Cudmore and R.P. Hill (2006), "The impact of perceived corporate social responsibility on consumer behavior", *Journal of Business Research*, **59**(1): 46-53.

Becker, G.S. (1974), "A Theory of Social Interactions", *Journal of Political Economy*, **82**(6): 1063-1093.

Bekkers, R. (2005), "Participation in Voluntary Associations: Relations With Resources, Personality, and Political Values.", *Political Psychology*, **26**: 439-454.

Bekkers, R. (2006), "Traditional and Health-Related Philanthropy: The Role of Resources and Personality", *Social Psychology Quarterly*, **69**(4): 349-366.

Bekkers, R. (2007), "Measuring Altruistic Behavior in Surveys: The All-or-Nothing Dictator Game.", *Survey Research Methods*, **1**(3): 139-144.

Bekkers, R. and T. Schuyt (2008), "And Who is Your Neighbor? Explaining Denominational Differences in Charitable Giving and Volunteering in the Netherlands.", *Review of Religious Research*, **50**(1): 74-96.

Bekkers, R. and P. Wiepking (2011), "A Literature Review of Empirical Studies of Philanthropy: Eight Mechanisms That Drive Charitable Giving", *Nonprofit and Voluntary Sector Quarterly*, **in press**.

Bekkers, R. and M.O. Wilhelm (2010), "Helping Behavior, Dispositional Empathic Concern, and the Principle of Care.", *Social Psychology Quarterly*, **73**(1): 11-32.

Ben-Ner, A. and A. Kramer (2011), "Personality and altruism in the dictator game: Relationship to giving to kin, collaborators, competitors, and neutrals", *Personality and Individual Differences*, **in Press**.

Ben-Ner, A., L. Putterman, F. Kong and D. Magan (2004), "Reciprocity in a Two-part Dictator Game.", *Journal of Economic Behavior and Organization*, **53**: 333-352.

Bénabou, R. and J. Tirole (2010), "Individual and corporate social responsibility", *Economica*, **77**(305): 1-19.

Bénabou, R. and J. Tirole (2011), "Identity, Morals and Taboos: Beliefs as Assets", *Quarterly Journal of Economics*, **126**(2): 805-855.

Bennett, R. (2003), "Factors underlying the inclination to donate to particular types of charity", *International Journal of Nonprofit and Voluntary Sector Marketing*, **8**(1): 12-29.

Berg, J., J. Dickhaut and K. McCabe (1995), "Trust, Reciprocity and, Social History", *Games and Economic behavior*, **10**: 122-142.

Berkowitz, L. (1972), "Social norms, feelings, and other factors affecting helping and altruism". in L. Berkowitz (Ed.), *Advances in experimental social psychology*. New York: Elsevier, **6:** 63-108.

Besley, T. and M. Ghatak (2007), "Retailing Public Goods: The Economics of Corporate Social Responsibility.", *Journal of Public Economics*, **91**: 1645-1663.

Blend, J.R. and E.O. van Ravenswaay (1999), "Measuring Consumer Demand for Ecolabeled Apples.", *American Journal of Agricultural Economics*, **81**(5): 1072-1077.

Bonroy, O. and C. Constantatos (2004), "Biens de Confiance et Concurrence en Prix: Quand Aucun Producteur ne Souhaite l'Introduction d'un Label", *Revue Economique*, **55**(3): 527-532.

Borghans, L., A.L. Duckworth, J.J. Heckman and B. ter Weel (2008), "The Economics and Psychology of Personality Traits", *Journal of Human Resources*, **43**(4): 972-1059.

Bougherara, D. and P. Combris (2009), "Eco-labelled food products: what are consumers paying for?", *European Review of Agricultural Econnomics*, **36**(3): 321-341.

Camerer, C.F. (2003), *Behavioral Game Theory: Experiments in Strategic Interaction*: Princeton, NJ: Princeton University Press; New York, NY: Russell Sage Foundation.

Caplan, B. (2003), "Stigler–Becker versus Myers–Briggs: Why Preference-based Explanations are Scientifically Meaningful and Empirically Important.", *Journal of Economic Behavior and Organization*, **50**: 391-405.

Carrigan, M. and A. Attalla (2001), "The myth of the ethical consumer – do ethics matter in purchase behaviour?", *Journal of Consumer Marketing*, **18**(7): 560-577.

Caswell, J.A. and E.M. Mojduszka (1996), "Using Informational Labeling to Influence the Market for Quality in Food Products", *American Journal of Agricultural Economics*, **78**(5): 1248-1253.

Caswell, J.A. and D.I. Padberg (1992), "Toward a More Comprehensive Theory of Food Labels", *American Journal of Agricultural Economics*, **74**(2): 460-468.

Cavaco, S. and P. Crifo (2010), "The CSR-Firm Performance Missing Link: Complementarity Between Environmental, Social and Business Behavior Criteria?", *WP series of Ecole Polytechnique 2010-19*.

Chandon, P. and B. Wansink (2011), "Is Food Marketing Making us Fat? A Multidisciplinary Review", *Foundations and Trends in Marketing*, **in press**.

Chatzidakis, A., S. Hibbert and A. Smith (2007), "Why People Don't Take their Concerns about Fair Trade to the Supermarket: The Role of Neutralisation", *Journal of Business Ethics*, **74**(1): 89-100.

Conrad, K. (2005), "Price Competition and Product Differentiation When Consumers Care for the Environment.", *Environmental and Resource Economics*, **31**: 1-19.
Costa, P.T. and R.R. McCrae (1992), *Revised NEO Personality Inventory and the Five-Factor Inventory professional manual*. Odessa, FL: Psychological Assessment Resources.
Crampes, C. and A. Hollander (1995), "Duopoly and Quality Standards.", *European Economic Review*, **39**(1): 71-82.
Crumpler, H. and P.J. Grossman (2008), "An experimental test of warm glow giving", *Journal of Public Economics*, **92**(5-6): 1011-1021.
Dana, J., D.M. Cain and R.M. Dawes (2006), "What you don't know won't hurt me: Costly (but quiet) exit in dictator games", *Organizational Behavior and Human Decision Processes*, **100**(2): 193-201.
Darby, M.R. and E. Karni (1973), "Free competition and the optimal amount of fraud", *Journal of law and economics*, **16**(1): 67-88.
Davies, R., B. (2005), "Abstinence from Child Labor and Profit Seeking.", *Journal of Development Economics*, **76**: 251-263.
Davis, M. (1980), "A Multidimensional Approach to Individual Differences in Empathy", *JSAS Catalog of Selected Documents in Psychology*, **10**(85).
De Pelsmacker, P., L. Driesen and G. Rayp (2005), "Do consumers care about ethics? Willingness to pay for fair trade coffee.", *The Journal of Consumer Affairs*, **39**(2): 363-385.
Doane, D. (2001), *Taking Flight: The Rapid Growth of Ethical Consumerism*. London: New Economics Fundation.
Einolf, C.J. (2008), "Empathic Concern and Prosocial Behaviors: A Test of Experimental Results Using Survey Data", *Social Science Research*, **37**: 1267-1279.
Eisenberg, N., P.A. Miller, M. Schaller, R.A. Fabes, J. Fultz, R. Shell and C.L. Shea (1989), "The role of Sympathy and Altruistic Personality Traits in Helping: A Reexamination.", *Journal of Personality*, **57**: 41-67.
European Commission (2001), *Promoting a European framework for Corporate Social Responsibility*. Green Paper: COM(2001) 366 final.
European Commission (2006), *Making Europe a pole of excellence on corporate social responsibility*. Communication: COM(2006) 136 final.
Fong, C.M. (2007), "Evidence from an Experiment on Charity to Welfare recipients: Reciprocity, Altruism and the Empathic Responsiveness Hypothesis.", *The Economic Journal*, **117**: 1008-1024.
Forsythe, R., J.L. Horowitz, N.E. Savin and M. Sefton (1994), "Fairness in Simple Bargaining Experiments.", *Games and Economic Behavior*, **6**: 647-369.
Frooman, J. (1997), "Socially Irresponsible and Illegal Behavior and Shareholder Wealth: A Meta-Analysis of Event Studies.", *Business and Society*, **36**(3): 221-249.
Gergen, K.J., M. Gergen and K. Meter (1972), "Individiual Orientations to Pro-social Behavior.", *Journal of Social Issues*, **28**: 105-130.
Golan, E., F. Kuchler and L. Mitchell (2001), "Economics of Food Labeling.", *Journal of Consumer Policy*, **24**: 117-184.
Gordon, L.V. (1976), *Survey of Interpersonal Values: Revised Manual*. Chicago, IL: Science Research Associates.
Graziano, W.G. and N. Eisenberg (1997), "Agreeableness: A Dimension of Personality.". in R. Hogan, J. Johnson and S. Briggs (Eds.), *Handbook of Personality Psychology*. San Diego, CA: Academic Press**:** 795-824.
Guillon, F. and M. Juliot (2001), "Les attentes des consommateurs s'élargissent", *Economie et Humanisme*, **357**: 18-21.

Harbaugh, W.T. (1998), "The prestige motive for making charitable transfers", *American Economic Review*, **88**(2): 277-282.
Heckman, J.J. and D.V. Masterov (2007), "The Productivity Argument for Investing in Young Children", *Review of Agricultural Economics*, **29**(3446-493).
Hicks, R.L. (2006), "Performance-Based Labeling.". in U. Grote, A. K. Basu and N. H. Chau (Eds.), *New Frintiers in Eco and Social Labeling*. Berlin and New York: Physica-Verlag, Springer Publishing.
Hines, C. and A. Ames (2000), *Ethical Consumerism. A Research Study Conducted for the Co-Operative Bank by MORI.* London: MORI.
Huang, C.L. (1996), "Consumer preferences and attitudes towards organically grown produce", *European Review of Agricultural Economics*, **23**(3): 331.
Hvide, H.K. (2009), "Oligopolistic Certification.", *The B.E. Journal of Theoretical Economics*, **9**(1).
Konow, J. and J. Earley (2008), "The hedonistic paradox: is homo economicus happier?", *Journal of Public Economics*, **92**(1-2): 1-33.
Kuhn, M. (2005), *The Greening of Markets: Product Competition, Pollution and Policy Making in a Duopoly.* Cheltenham: Elgar.
Lantos, G.P. (2001), "The Boundaries of Strategic Corporate Social Responsibility", *Journal of Consumer Marketing*, **18**(7): 595-632.
Ledyard, J.O. (1995), "Public Goods: A Survey of Experimental Research". in A. Roth and J. Klage (Eds.), *Handbook of Experimental Economics.* Princeton, NJ: Princeton University Press.
Loureiro, M.L. and J. Lotade (2005), "Do Fair Trade and Eco-Labels in Coffee Wake Up the Consumer Conscience?", *Ecological Economics*, **53**: 129-138.
Loureiro, M.L., J.J. McCluskey and R.C. Mittelhammer (2002), "Will Consumers Pay a Premium for Eco-labeled Apples?", *The Journal of Consumer Affairs*, **36**(2): 203-219.
Margolis, J. and J. Walsh (2001), *People and Profits? The Search for a Link between a Company's Social and Financial Performance.* Mahwah: Erlbaum.
McCluskey, J.J. (2000), "A Game Theoretic Approach to Organic Foods: An Analysis of Asymmetric Information and Policy.", *Agricultural and Resource Economics Review*, **29**(1): 1-9.
McCluskey, J.J. and M.L. Loureiro (2003), "Consumer preferences and Willingness to Pay for Food Labeling: A Discussion of Empirical Studies.", *Journal of Food Distribution Research*, **34**(3): 95-102.
McGarry Wolf, M., B. Johnson, K. Cochran and L. Hamilton (2002), "Consumer attitudes toward organically grown lettuce", *Journal of Food Distribution Research*, **33**(1): 155-160.
Mohr, L.A., D.J. Webb and K.E. Harris (2001), "Do Consumers Expect Companies to be Socially Responsible? The Impact of Corporate Social Responsibility on Buying Behavior", *Journal of Consumer Affairs*, **35**(1): 45-72.
MORI, L. (2000), "European Attitudes towards Corporate Social Responsibility.". in, *Research for CSR Europe*. London: MORI.
National Academy of Sciences (1991), *Improving America's Diet and Health: From Recommendations to Action*. Report of the Committee on Dietary Guidelines Implementation, Food and Nutrition Board, Institute of Medicine. Washington, D.C.: National Academy Press.
Nelson, P. (1974), "Advertising as information", *The Journal of Political Economy*, **81**: 729-754.
Noussair, C.N. and B. Ruffieux (2004), "A Comparison of Hedonic Rating and Demand-Revealing Auctions.", *Food Quality and Preference*, **15**(4): 393-402.

Offerman, T., J. Sonnemans and A. Schram (1996), "Value Orientations, Expectations and Voluntary Contributions in Public Goods.", *The Economic Journal*, **106**(437): 817-845.

Park, E.-S. (2000), "Warm-Glow versus Cold-Prickle: A Further Experimental Study of Framing Effects on Free-Riding", *Journal of Economic Behavior and Organization*, **43**: 405-421.

Penner, L.A. (2002), "Dispositional and Organizational Influences on Sustained Volunteerism: An Interactionist Perspective.", *Journal of Social Issues*, **58**: 447-468.

Penner, L.A., B.A. Fritzsche, J.P. Craiger and T.S. Freifeld (1995), "Measuring the Prosocial Personality". in C. D. Spielberger and J. N. Butcher (Eds.), *Advances in Personality Assessment*. Mahwah, NJ: Erlbaum, **10:** 147-163.

Perugini, M., J.H.W. Tan and D.J. Zizzo (2010), "Which is the More Predictable gender? Public Good Contribution and Personality.", *Economic Issues*, **15**(1): 83-110.

Poret, S. (2007), "Les défis du commerce équitable dans l'hémisphère Nord", *Économie Rurale*, (6): 56-70.

Reed, P.B. and L.K. Selbee (2002), *Is There a Distinctive Pattern of Values Associated with Giving and Volunteering? The Canadian case.* Montreal, Canada: 32nd ARNOVA Conference.

Rege, M. and K. Telle (2004), "The impact of social approval and framing on cooperation in public good situations", *Journal of Public Economics*, **88**(7-8): 1625-1644.

Renaut, A. (2003), "Corporate social responsibility in Europe: A chance for social dialogue?". in ILO (Ed.), *Labour Education*. Geneva: ILO.

Ribar, D.C. and M.O. Wilhelm (2002), "Altruistic and joy-of-giving motivations in charitable behavior", *The Journal of Political Economy*, **110**(2): 425-457.

Rode, J., R.M. Hogarth and M. Le Menestrel (2008), "Ethical Differentiation and Market Behavior: An Experimental Approach.", *Journal of Economic Behavior and Organization*, **66**: 265-280.

Ruffieux, B. (2004), "Le Nouveau Citoyen-Consommateur: Que Peut-On en Attendre en Termes d'Efficacité Economique?", *Sciences de la Société*, **62**: 93-117.

Sen, S. and C.B. Bhattacharya (2001), "Does Doing Good Always Lead to Doing Better? Consumer Reactions to Corporate Social Responsibility", *Journal of Marketing Research*, **38**(2): 225-243.

Simon, H.A. (1993), "Altruism and economics", *American Economic Review*, **83**(2): 156-161.

Social Investment Forum (2003). 2003 Report on Socially Responsible Investing Trends in the United States, SIF Industry Research Program.

Soetevent, A.R. (2005), "Anonymity in giving in a natural context--a field experiment in 30 churches", *Journal of Public Economics*, **89**(11-12): 2301-2323.

Tagbata, D. and L. Siriex (2008), "Measuring Consumer's Willingness to Pay for Organic and Fair Trade Products.", *International Journal of Consumer Studies*, **32**: 479-490.

Valor, C. (2008), "Can consumers buy responsibly? Analysis of solutions for market failures ", *Journal of Consumer Policy*, **31**(3): 315-326.

Van Lange, P.A.M. (2000), "Beyond Self-Interest: A Set of Propositions Relevant to Interpersonal Relations". in W. Stroebe and M. Hewstone (Eds.), *European Review of Social Psychology*. London: Wiley**:** 75-104.

Van Lange, P.A.M., W. Oten, E.M.N. De Bruin and J.A. Joireman (1997), "Development of Prosocial, Individualistic, and Competitive Orientations: Theory and Preliminary Evidence", *Journal of Personality and Social Psychology*, **73**(4): 733-746.

Vermeir, I. and W. Verbeke (2006), "Sustainable food Consumption: Exploring the consumer "Attitute - Behavioral Intention" gap", *Journal of Agricultural & Environmental Ethics*, **19**(2): 169-194.

Wertenbroach, K. and B. Skiera (2002), "Measuring Consumer's Willingness to Pay at the Point of Purchase.", *Journal of Marketing Research*, **39**: 228-241.

Wymer, W.W. (1997), "Segmenting volunteers using values, self-esteem, empathy, and facilitation as determinant variables", *Journal of Nonprofit & Public Sector Marketing*, **5**(2): 3-28.

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