

Do Social Product Features Have Value to Consumers?

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ABSTRACT

The present paper utilizes a random utility theoretic experimental design to provide estimates of the relative value that selected consumers place on the social features of products.

Experiments were conducted in Hong Kong and Australia using both university students and supporters of the human rights organization Amnesty International. The paper focuses on two classes of social features, “labor practices” and “animal rights and the environment”. The results show that the social features of products can, on average, affect an individual’s likelihood of purchasing a product. Also, this paper finds distinctive segments of ethically orientated consumers.

1. INTRODUCTION

There has been increasing debate on the importance of ethical consumerism in the marketing of products and the day-to-day strategic management of business (Devinney, Auger, Eckhardt, & Birtchnell, 2006). Ethical consumerism includes two basic components: (1) an 'ethical' component that underlies the importance of the non-traditional and social components of a company's products and business processes to that company's strategic success (e.g., environmental protectionism, labor practices, animal rights, etc.) and (2) a 'consumerism' component that implies that the preferences and desires of consumer segments are partially responsible for the rising importance of ethical or social factors. That is, firms would not independently take costly ethical positions without a customer base willing to grant advantages to companies that satisfy these desires (Bhattacharya & Sen, 2004; Harrison, 2003).

Recent studies and anecdotal evidence suggest that consumers are giving increasing consideration to the ethical components of products and business processes and that these concerns have financial implications for the businesses involved (Carrigan, Szmigin, & Wright, 2004; Mason, 2000; Uusitalo & Oksanen, 2004). However, the conclusions from these studies are based on case studies and survey results that ask respondents to simply rank the importance of a list of social issues and do not force consumers to consider any trade-off between social features of products and traditional utilitarian features. It is not unreasonable to believe that such studies may overstate the importance of social features, since the surveys contain answers that are clearly more socially-acceptable than the others (Auger & Devinney, 2007). For example, few people would answer that they do not care about the use of child labor or the amount of pollution involved in the manufacturing of the products they consume when there is no cost to hiding their true preference and when it is clearly the intent of the survey to gauge interest in that specific issue.

The purpose of this paper is to try to clarify a number of issues about ethical consumerism. Our primary concern is a direct one—“to what extent is a consumer’s purchase intention affected by the presence or absence of social product features?” To determine this, we use structured experiments to estimate the importance of both ‘functional’ and ‘social’ features in two product categories—athletic shoes and bar soaps—in two markets—Australia and Hong Kong—for a broad range of subjects. The subjects in this paper range from undergraduates and MBA (Master of Business Administration) students to supporters of Amnesty International. These experiments allow us to examine purchase intentions in constrained choice settings in which consumers are forced to balance features, instead of merely indicating the importance of a list of issues using unconstrained responses. Secondly, we are interested in whether the presentation of information about social concerns will affect the salience of such features. We determine this by designing an experiment in which respondents were exposed to different professionally designed news articles that described either all, some, or none of the social features.

Our choice of the three groups studied, which range from those who traditionally are not considered very socially conscious (Hong Kong undergraduates) to those subscribing to membership in a human rights group (Amnesty International), allow us to examine more definitely this issue of whether such preferences exist and are characterizable. At the most basic level, two questions need to be considered and are the subject of our research:

- (1) Do ethically orientated consumers exist? In other words, do individuals exist who would change their purchase intentions when presented with product options that include socially preferential attributes?
- (2) What is the impact of information about the nature of social features on purchase intentions? In other words, can the salience of socially preferential attributes be modified with the provision of additional information about the nature of these attributes?

2. CONCEPTUAL DEVELOPMENT

2.1 Ethical Consumers and the Importance of Socially Preferential Product Attributes

In reference to the first question, there is considerable evidence that socially conscious consumer segments exist as distinctive groups. In general, the ethics literature has shown that consumers indicate that they value moral stances. For example, Fullerton, Kerch, and Dodge (1996) and Stennhaut and Van Kenhove (2005) show that consumers generally are quite intolerant with regard to ethical abuses by retailers (e.g., cheating customers) and consumers (e.g., abusing the goodwill of retailers). Consumers also commonly ‘reward’ or ‘punish’ companies with their purchasing behavior (Nebenzahl, Jaffe, & Kavak, 2001). Similarly, a number of studies have shown that consumer attitudes towards ethics tend to vary between cultures (Srnrka, 2004; Vitell, 2003) and between groups with different demographic characteristics such as age (Vitell, Lumpkin, & Rawwas, 1991) and gender (Rawwas, 1996).

Studies that examined the importance of ethical consumerism have primarily focused on environmentalism or ‘green’ consumers. For example, Sriram and Forman (1993) examined the strength of consumer preferences using conjoint analysis. They studied milk, washing machines and deodorant using Dutch and American respondents, and varied the prevalence of such socially responsible features as recyclable packaging (milk), energy efficiency (washing machines) and animal testing (deodorant). They found that energy efficiency was not important to either group, but American consumers were more concerned about milk in recyclable packages than Dutch consumers, who wanted cheap, low fat milk in non-plastic containers. Both groups showed concern towards the testing of deodorants on animals.

A study by Elliott and Freeman (2001) produced some additional insights into the behavior of consumers. First, the authors found that consumers were willing to pay more for products made under desirable conditions, but that the price of the products affected how much more. For example, their results indicate that consumers were willing to pay 28 percent

more for \$10 items, but only 15 percent more for \$100 items. Further investigations led to some interesting generalizations. The authors found relatively high elasticities of demand for products made under bad conditions but low elasticities for products made under good conditions. Trudel and Cotte (2008) found similar results with the mediator being the consumers ethical attitudes. This suggests that companies can be negatively impacted by having their products identified as being made under non-desirable conditions but have little to gain from marketing their products as being produced under desirable conditions. We posit that purchase intentions can be affected by the presence of socially desirable features, but that individuals will not sacrifice basic product functionality for more socially desirable features. In other words, individuals will not sacrifice functionality for social desirability. Hence the following hypothesis:

H1: Groups of individuals exist who will change their purchase intentions when presented with product options that include socially preferential attributes, but only when the product options meet basic functional requirements.

2.2 The Role of Information in Ethical Purchasing

Our second research question focuses on the impact of information about social features on purchase intentions. Previous studies suggest that, in general, consumers do not know about the social features of most of the products they consume (Bhattacharya & Sen, 2004; Elliott & Freeman, 2001). That is, most consumers have no direct information about social features, meaning that their demand for 'better products' is a latent one. This makes the profitability of presenting information to the consumer, such as in eco-labeling, difficult to assess (Pedersen & Neergard, 2006). It also implies that simply studying what consumers do in a revealed preference setting is not possible since few such products are available and consumers are not knowledgeable about most of the relevant components. This is true even when a product exists that embodies these components. For example, most Western multinational companies

operate with codes of conduct that ban the use of underage workers or dangerous work conditions, however, few, if any, label the products as such or provide advertised guarantees.

The implication of this lack of information about social features is that properly informed customers may be more likely, given the chance, to make an ethical stand than uninformed customers. Two concepts from the literature on information processing and the role of information in consumer choice appear to be especially relevant within the context of our study. First, there is extensive literature demonstrating that individuals place more weight on negative information than positive information when forming opinions of a product, company, or person (Herr, Kardes, & Kim, 1991; Klein & Shiv, 1996). This negativity effect is often explained by the potentially more informative nature of negative information over positive information (Skowronski & Carlston, 1989). For example, Ahluwalia, Burnkrant, and Unnava (2000) found that the brand loyalty of consumers (or their level of commitment to a brand) moderates the negativity effect. That is, consumers tended to respond more positively to negative information when they were more committed or loyal to a brand.

Second, supplying customers with more details about social features may increase their salience. Most of the research in this area has focused on the issue of missing information, which is relevant to our research. For example, Kivetz and Simonson (2000) found that consumers gave more weight to attributes when all options were available than when only part of the options were available. The implication is that marketers may be able to increase (or decrease) the salience of an attribute by supplying more (or less) information.

Based on these results, our second hypothesis predicts that consumers who are given more information about the nature and breadth of social features will be more likely to make decisions based on ethical considerations. Specifically, we expect the negativity effect to be stronger when consumers are more thoroughly informed about the nature of social features, which should then increase the importance of social features in the purchase decision.

Moreover, the additional information may also increase the salience of the social features, providing a similar impact on purchase decision.

H2: Individuals who are exposed to information about the nature of social product features will react more to the existence of negative social product features than individuals who are not exposed to the same information.

3. METHOD

3.1 Experimental Design

We tested our hypotheses by designing and implementing a two-stage experiment that involved two survey instruments: an ethical disposition survey (EDS) and a choice experiment.

The choice experiment required subjects to: (1) evaluate their most recently purchased brand, (2) decide whether to consider and purchase 32 hypothetical bar soap or athletic shoe products, and (3) answer a series of socio-demographic questions. Purchase consideration and intention was measured as either a “yes” or “no”. Bar soaps and athletic shoes were used as products because of familiarity and relevance to specific social issues, namely “environmentalism” and “labor and animal rights” (and the fact that both males and females of all age groups would have experience with the product categories). Subjects were randomly assigned either to the bar soap or athletic shoe experiments. The functional product attributes were pre-tested to ensure their relevance to consumer purchase decisions and price levels were consistent with prices in both markets at the time of data collection. We chose social product attributes on the basis of their pertinence to each product category and representativeness of ethical concerns expressed by human rights activist groups, environmental and animal activist groups, as well as journalists. The attributes and their levels are shown in Table 1.

The choice experiment also involved an overarching experiment in which subjects were supplied with a professionally designed news article about functional and social factors

related to the production of bar soaps or athletic shoes. Articles were pre-tested for believability and comparability across both product categories and these tests indicated that they were realistic and effectively similar in style and content. There were eight experimental conditions plus two control conditions (see Figure 1 for experimental conditions). Subjects in the experimental conditions were randomly assigned to one of eight news articles for which the presence or absence of each of the social factors mentioned in the articles was systematically varied. Subjects in the control conditions received either no information (control 1) about the social factors, or 'full' information (control 2) about all social factors. Finally, subjects were randomly assigned to one of three conditions whereby two groups of subjects received both a choice experiment and the EDS survey, and the third group only received the choice experiment. The order of survey administration was randomized (i.e., for those subjects who received both components) so that subjects received a first instrument (EDS or choice experiment), and received a different second instrument (EDS or choice experiment).

There were three groups of subjects: (1) MBA students at an Australian university, (2) undergraduate students at a Hong Kong university ((Calder, 1982; Calder, Phillips, & Tybout, 1981) discuss the use of students in experiments), and (3) supporters of the human rights organization Amnesty International (in Australia). The Hong Kong instruments were translated into Chinese and back-translated to ensure consistency. The sample itself is not meant to be representative in the sense of providing a cross-section of consumers on which market predictions can be made; we were purposely looking for groups that would have variance in their reactions to the products and features presented. In the case of the Amnesty International sample we had a group of individuals with revealed behavior consistent with our base hypothesis and hence are predisposed to support at least some social causes.

More details on the experiment and its structure can be found in Auger, Burke, Devinney and Louviere (Auger, Burke, Devinney, & Louviere, 2003).

4. RESULTS

4.1 Simple Results

In total, 1,253 people were studied: 396 undergraduate students in Hong Kong, 357 MBA students in Australia, and 500 Amnesty International (AI) supporters (also in Australia). One hundred and eleven instruments were completed and returned from the Hong Kong students (28%), 162 from the Australian MBAs (45%), and 172 (34 %) from the AI supporters. Hong Kong subjects are mostly undergraduates, and are considerably younger than both the Australian graduate students and the AI supporters. They are also less likely to have children, be married or have postgraduate degrees. Considerably more women responded from the AI supporters (67%) and Hong Kong (54%) samples than the Australian university sample (32%) due largely to a greater proportion of females in these samples (the gender balance in each sample did not differ significantly from the sample characteristics).

4.2 The Importance of Social Attributes and Information

We tested our hypotheses using cross-tabulations and latent class regression analysis. In our first set of analyses, we used cross-tabulations to examine purchase probabilities across our samples, price levels, and information conditions. Specifically, we obtained the purchase probabilities for products with ‘good’ social attributes as well as the ratio of ethical purchases (for all social attributes) to total purchases across our three samples, four price levels, and four (or three) information conditions. Purchase probabilities were the number of times the subject indicated they would purchase that product divided by the total number of potential product purchases being considered. We present the results of these analyses in Table 2 for athletic shoes and Table 3 for bar soap. One example illustrates the proper way to read these results. For an AI supporter, the probability of purchasing any athletic shoe that was manufactured without child labor was 0.11 (see Table 2). In other words, if the absence of child labor was an attribute that appeared in the product offered, with every other attribute held constant, an AI supporter would purchase it in 11 percent of the cases. This 11 percent

accounted for 82 percent of total purchases of athletic shoes for that sample of respondents, implying that it was a potentially significant factor affecting a purchase decision. We now turn to the sample differences.

4.2.1 Differences by sample

Several interesting results emerged in the analyses of purchase probabilities across our three samples. First, AI supporters were much less likely to make a purchase of athletic shoes than respondents from our Hong Kong and Australian MBA samples. However, the probabilities were similar across the three samples for soap. This was a bit surprising given the relatively high prices for athletic shoes (versus soap) and the higher average income of the AI sample.

Second, and more relevant to our research questions, the results clearly show that AI supporters placed a greater level of importance on the social attributes of athletic shoes than did respondents from the other two samples. This can be seen by the much higher percentages of ethical purchases versus total purchases for child labor (82%), working conditions (75%), and living accommodations (66%) when compared to the other two samples. Only the minimum wage social issue showed few differences between samples.

Similar results were obtained for soap with respect to the importance of social features with animal testing (85%), biodegradable potential (65%), and animal-by-products (61%), constituting a much higher percentage of total purchases for AI supporters. These results lend partial support to hypothesis 1 by demonstrating that groups of consumers (in this case, AI supporters) placed greater importance on social attributes. Moreover, these individuals consistently placed greater importance on social attributes across both product categories and all social attributes, with one exception. Conversely, there were few, if any, differences in the importance of social attributes between the Hong Kong and Australian MBA samples. In fact, most of the ratios of ethical purchases to total purchases were around 50%, with the highest at 60% (no child labor for the Hong Kong sample) and the lowest at 48% (living conditions for the Australian MBA sample).

Third, the results also show that two issues, the use of child labor and the use of animal testing, had the greatest impact on purchases among the social attributes for the AI sample. In both cases, the ratio of ethical to total purchases for good social attributes was over 80%.

4.2.2 Differences by price levels

Our analyses by price levels produced both expected and unexpected results. As expected, the probability of purchasing a product (either athletic shoes or soap) decreased as price increased. However, the ratio of ethical to total purchases remained relatively constant among the four price levels across both products. The results suggest that the relative importance of the social attributes did not systematically vary across different levels of price. We are not suggesting that there were no variations in the ratio of ethical to total purchases, but that the variations (if they existed) do not appear to be systematic.

4.2.3 Differences by information conditions

Lastly, we examined the role of information in influencing the importance of social attributes on purchase intentions. In both cases, the results strongly suggest that providing respondents additional information about the nature of social attributes had little effect on their purchase intentions. Both the purchase probabilities and the ratios of ethical to total purchases were relatively consistent across all information conditions and ethical attributes. Hence, we find no support for the second hypothesis.

4.3 Segmenting the Socially-Conscious Consumer

Our next set of analyses consisted of a series of latent class binary logistic regressions (LCRs) with the dependent variable being whether the product would be purchased (+1) or not (-1). The LCRs also included the individual's characteristics as active covariates. Tables 4 and 5 present the results of the LCRs for athletic shoes and bar soap, respectively.

Interestingly, the results were almost identical for the two products, with three segments emerging from the analyses. For shoes (Table 4), segment 1 (41 % of respondents) can

clearly be labelled “socially conscious consumers” given that all four social attributes have a significant impact on purchase intentions. However, the results also clearly show that individuals within that segment placed significant importance on some of the functional attributes (i.e., fit and shock absorption) as well as price. Individuals in segment 2 (37 % of respondents) also valued social attributes, but only two out of the four affected purchase intentions, namely child labor and dangerous working conditions. On the other hand, several more functional attributes as well as brand (Nike) and price had an impact on their purchase intentions. Finally, individuals in segment 3 (22 % of respondents) were driven exclusively by functional features—especially price, fit, brand (Nike), and sole durability—with none of the social features having a significant effect on purchase intentions.

The pattern for bar soap was almost identical. Segment 1 (45 % of respondents) contained individuals who placed a significant level of importance on all three social attributes and thus can be labelled as the socially conscious consumer segment. As in the case of athletic shoes, individuals in segment 1 also valued some of the functional attributes with four attributes (including price) having a significant impact on purchase intentions. Individuals in Segment 2 (36.5 % of respondents) appear to be mostly concerned with the effect of the soap on their skin with the “pore clogging” and “acne worsening” attributes dominating all others. Only one of the social attributes, animal testing, was moderately significant. Finally, individuals in segment 3 (18.5 % of respondents) were concerned primarily with price with none of the social attributes having an impact on purchase intentions. Hence, these results, combined with the results from the cross-tabulation analyses, lend relatively strong support for hypothesis 1. This support is because segments of socially conscious consumers exist and, within those segments, individuals also place importance on functional attributes (we further discuss support for hypothesis 1 in the cross-validation study section).

The composition of the segments is consistent with our expectations and with the results of the cross-tabulations. Specifically, the socially conscious segments (segment 1 for both products) are composed primarily of AI supporters (88 % for shoes and 80% for soap) with the remainder coming almost exclusively from the Australian MBA sample (12 % for shoes and 19 % for soap). Segments 2 and 3 for both products have a mix of Australian MBAs and Hong Kong undergraduates with Segment 2 having a greater percentage of Australian MBAs and Segment 3 a higher percentage of Hong Kong undergraduates. The segments show few differences among the other demographic variables (i.e., gender, age, and education).

4.4 Cross-Validation Study

In order to determine if the results of the study (Study 1) were context or instrument-specific we undertook a second study (Study 2) with a similar subject population (i.e., a different sample of MBA students). In contrast to Study 1, Study 2 was based on a traditional stated preference discrete choice experiment (Louviere, Hensher, & Swait, 2000; Louviere & Woodworth, 1983). The functional and social features as well as the base prices were identical to the ones used in Study 1 and the presentation was also identical.

The product attributes were blocked into 4 “pair types” based on whether the ethical attributes were all ‘good’ or all ‘bad’ and the functional attributes were all ‘good’ or all ‘bad’ (see Table 6). The ‘good’ levels of the attributes are shown in Table 1 in bold. The brands were those showing identical effects in Study 1—Reebok and Adidas in the case of athletic shoes and international and local in the case of bar soap. For example, in the pair type 1 for shoes, brand X would be Adidas, with all the functional attributes at their best level and all the ethical attributes—child labor, working conditions, living conditions and minimum wages—at their worst level. Brand Y would be Reebok with all attributes, ethical and functional, at the ‘good’ levels.

Such a design forces the subject to trade off ethics, functionality and price, which we

made easier because of the way in which price was varied. Specifically, we selected three levels of prices, corresponding to the two extreme price levels (e.g., \$40 and \$130 in the case of the athletic shoes) and the average of the price levels in Study 1 (\$85 for athletic shoes). We next chose three markup percentages that would apply when all social features are ‘good’, and crossed them with the three price levels to make nine price combinations (10%, 25% and 50%). Finally, for a particular pair type, we assigned the base price from Study 1 to the option for which all social features were at ‘bad’ levels. We then added the percentage markup implied by each of the nine nested price levels to the option in each pair that displayed social features as ‘good’. Following this process created 12 price levels in total.

One of the most important features of Study 2 is that profiles containing ‘good’ social features are always priced higher than products with ‘bad’ social features. For athletic shoes the 12 price levels were: \$40, \$44, \$50, \$60, \$85, \$93.50, \$106.25, \$127.50, \$130, \$143, \$162.50 and \$195. For bar soaps the 12 price levels were: \$0.45, \$0.50, \$0.56, \$0.68, \$1.35, \$1.49, \$1.69, \$2.03, \$2.25, \$2.48, \$2.81 and \$3.38.

The experiment included 9 sets of two product profiles. This was done for both shoes and soap. For each of the 9 profiles, respondents were asked to select among three alternatives: product A, product B, or neither product. Hence, each respondent made a total of 18 choices (9 for shoes and 9 for soap). One hundred twenty-two subjects completed the experiment. Demographically, they did not differ from the first sample of Australian MBA students although they represented a different school and a different year of intake. We also varied whether or not the subject received the same “professionally designed news article” as in Study 1, in this case either describing all or none of the social features.

The results of Study 2 strongly support the findings of Study 1 and suggest that the sample consumers under consideration are willing to pay a premium for social attributes but will not sacrifice product functionality. A complete statistical analysis is available from the authors; Table 7 reveals the basic results. As expected, individuals switch away from the

product having ‘bad’ social attributes even when there is a cost to doing so (this is seen most clearly in pair type 1 and pair type 2, where one product is always good on both ethics and function). However, the subjects were not willing to sacrifice functional attributes for socially desirable products. This unwillingness to sacrifice functional attributes is revealed by examining pair types 3 and 4, where good function is always linked with bad ethics and vice versa. Whenever the functional features are ‘bad’, the subjects switch to the product with ‘bad’ social features to get the ‘good’ functional features. Finally, people were much more likely to forego purchases (i.e., choose the neither option) as the price premium increased. This was especially prevalent for athletic shoes. Hence, the results of Study 2 show strong support for hypothesis 1.

Study 2 permits us to investigate the impact of the size of the price premium on purchase intention. Figures 2 and 3 present the results of these analyses for shoes and soap, respectively. They show the percentage of respondents that selected the ethical product for each different price premium (both in absolute and percentage terms) and compare pair types 1 and 2 (where there is no dilemma as one of the products has both good function and good ethics) with pair types 3 and 4 (where the ‘good’ ethical product always has ‘bad’ functional features).

Two consistent results emerge from this analysis. First, the percentage of respondents willing to purchase ethical products decreases dramatically across all prices when the functional attributes are ‘bad’ (the difference in the two bar graphs in each figure). For example, in the case of athletic shoes the likelihood that someone will purchase the ethical product with a premium of \$4.00 and no degradation of functionality is 62%. However, with the same premium and having to sacrifice functionality the probability drops to 20%. Second, there is a clear impact of the price premium on the likelihood a consumer behaves ethically. For athletic shoes a \$1.00 increase in the price premium reduces the likelihood of purchase by about 0.70 percentage points when there is no dilemma (pair types 1 and 2, where the initial

likelihood of purchase is high) and 0.06 percentage points when there is a dilemma (pair types 3 and 4, where the initial likelihood of purchase is low). For bar soaps the numbers are of a similar order of magnitude. A 10 cent increase in the price premium will decrease the likelihood of purchasing the ethical bar soap by 3.7 percentage points when there is no dilemma (pair types 1 and 2) and about 1.2 percentage points when there is a dilemma (pair types 3 and 4). In the case of both product's categories, a 10% premium is sufficient to drive purchase intention to nearly zero.

Two other interesting results emerged from Study 2. First, when no information is provided, the subjects were less likely to make a choice (Table 7). Second, the ethical information itself does not affect the degree to which the presence or absence of social features affects the subjects' choice. This latter result is consistent with the results of Study 1, which demonstrated that providing additional information about the social attributes did not increase their salience. Overall, the results of Study 2 reveal that the results of Study 1 can be replicated with alternative designs and samples.

5. DISCUSSION

We address a much discussed but little understood phenomenon, the willingness of consumers to consider non-product social features in their purchase decisions. Although there has been an enormous amount of discussion surrounding the role of non-commercial factors in business activity, the amount of solid empirical scientific evidence is limited. For example, the South Africa boycott is looked on by human rights groups as a model for how such activity can be effective in changing a regime's stance, and is being replicated in Burma. However, the scientific evidence appears to indicate that the financial impact of the boycott was minor (Teoh, Welch, & Wazzan, 1999).

For both socially conscious segments (i.e., for shoes and soap), individuals within those segments placed a relatively high level of importance on the social attributes. In fact, all seven social attributes were significantly related to purchase intentions across the two

products. Our results also show that individuals within the socially conscious segments did not ignore functional attributes when making purchase decisions. For example, individuals in the socially conscious segment for soap (see Table 5) were also significantly influenced by the impact of the soap on their skin, as well as price and the shape of the soap. Similarly, individuals in the socially conscious segment for shoes (see Table 4) placed significant importance on fit, price and shock absorption. Hence, these results offer strong support for hypothesis 1.

Support for hypothesis 1 was also strong in Study 2. The results from Study 2 again demonstrate that individuals were not willing to sacrifice functionality for social desirability. For both products, purchase intentions decreased massively when the functional attributes were “bad”, even when the social attributes were good. That is, good social attributes did not compensate for weak functional attributes. This highlights the importance of forcing consumers to make trade-offs among attributes, both functional and social.

Overall, membership in the three segments followed a pattern that was both expected and easy to explain. Most of the individuals in the socially conscious segments came from the AI sample (88% for shoes and 80% for soap). Segment membership in the socially conscious segments was also consistent with our cross-tabulation analyses, which clearly showed that AI supporters placed much greater importance on ethical features than respondents from the other two samples.

The same cannot be said about the size of the socially conscious segments, which contained 41 % of the total sample for shoes and 45 % of the sample for soap. Two issues are important to keep in mind when interpreting the size of these segments. First, our sample was not representative, nor was it meant to be. Hence, our results do not suggest that over 40% of consumers in those countries are potentially socially conscious consumers. Second, our analyses show that consumers within the socially conscious segments are not only influenced by social attributes, but also by functional ones. Therefore, the number of individuals in the

socially conscious segments represents an upper limit of individuals who may change their purchase intentions based on the nature of the social attributes. It does not guarantee that all of those individuals would change their purchase behavior.

Interestingly, our analyses indicate that providing respondents with information on the nature of social features does not change the influence of these features on purchase intentions. Hence, we found no support for hypothesis 2. This is surprising in light of previous research (e.g., Klein & Shiv, 1996). The implications of these results are that consumers are knowledgeable about the nature of social attributes. That is, they understand the basic issues associated with the use of child labor or animal testing. Furthermore, they seem to be aware that certain social attributes are associated with certain types of products (e.g., child labor in shoe production and animal testing in cosmetics).

The focus of our research was restricted and possesses many limitations. We examined only two cultures (Australia and Hong Kong), analyzed limited samples within each (university and graduate students, and Amnesty International supporters), and only considered two products (shoes and soap). This is especially important when it comes to determining the size of socially conscious segments. Obviously this needs to be expanded (on-going work in multiple countries, across widely varying cultures, does appear to support the findings here).

Though the choice experiments forced respondents to make trade-offs among attributes, they only capture purchase intentions. It is plausible that the results from our experiments overstate the importance of social attributes, as our respondents did not have to make actual purchases. However, previous experience with stated preference methods across a wide range of contexts has demonstrated their usefulness and accuracy at predicting actual purchase behavior (Louviere et al., 2000).

The growing importance of this topic can be seen in the current movement toward social accountability audits (Economist, 1999), and the increasing amounts of money that

corporations spend to 'fix' systems under pressure from increasingly sophisticated interest groups. Our research shows that when consumers are not aware of the social dimensions of the products they purchase, subsequent and proper presentation of these dimensions can influence their future purchases. However, our results also suggest, consistent with the work of Bhattacharya and Sen (2004), that consumers will probably not sacrifice aspects of product performance for ethical considerations alone.

Table 1: Product Features and Ethical Attributes Used in the Experiments

Athletic Shoes	Bar Soap
Basic Product Features:	
Shock absorption/cushioning (LOW or HIGH)	Shape (ROUNDED or SQUARE)
Weight (LIGHTER or HEAVIER)	Natural ingredients (NO or YES)
Ankle support (LOW CUT or HIGH CUT)	Scented (NO or YES)
Sole durability (SHORT or LONG)	Artificial colors (NO or YES)
Breathability/ventilation (LOW or HIGH)	Moisturizer (NO or YES)
Fabrication Materials (SYNTHETIC or LEATHER)	Anti-bacterial protection (NO or YES)
Reflectivity at night (NO or YES)	Will it clog your pores? (NO or YES)
Comfort/fit (LOW or HIGH)	Will it worsen your acne? (NO or YES)
Brand of shoe (Nike, Adidas, Reebok, New Balance, Converse, Brooks, Fila, Puma, Etonic, Asics, Saucony)	Brand name (MAJOR MULTI-NATIONAL or LOCAL BRAND)
Price (\$40, \$70, \$100, \$130)—in Australia	Price (\$2.25, \$1.65, \$1.05, \$0.45)—in Australia
Price (\$300, \$550, \$800, \$1,050)—in HK	Price (\$6, \$9, \$12, \$15)—in HK

Ethical Features:

Is child labour used in making the product? (NO or YES)	Biodegradable formulation? (NO or YES)
Are workers paid above minimum wage? (NO or YES)	Tested on animals? (NO or YES)
Are workers' working conditions dangerous? (NO or YES)	Animal by-products used as ingredients? (NO or YES)
Are workers' living conditions at the factory acceptable? (NO or YES)	

Note: Two level items coded as -1 and +1. The first item (e.g., NO) is coded -1 and the second (e.g., YES) is coded +1.

In Study 2 all the 'good' attributes are represented in the above table by the use of bold text. The 'bad' levels are indicated by non-bold text.

Table 2: Purchase Probabilities and Percentage of Total Purchases for Shoes by Ethical Attributes and Brands

	Probability of buying ethical product (% total purchases)				Probability of Buying Brand	
	Child labor	Minimum wage	Working conditions	Living accommodations	Nike	Adidas
Sample						
Hong Kong	0.16 (60%)	0.14 (55%)	0.15 (56%)	0.13 (50%)	0.13 (24%)	0.14 (26%)
Australia MBA	0.20 (51%)	0.21 (54%)	0.21 (54%)	0.19 (48%)	0.21 (26%)	0.17 (20%)
Amnesty International	0.11 (82%)	0.08 (58%)	0.10 (75%)	0.09 (66%)	0.10 (31%)	0.09 (27%)
Price of Shoes						
\$40	0.20 (57%)	0.16 (45%)	0.19 (55%)	0.21 (61%)	0.29 (39%)	0.10 (13%)
\$70	0.19 (65%)	0.19 (64%)	0.19 (64%)	0.13 (42%)	0.07 (12%)	0.16 (26%)
\$100	0.12 (58%)	0.13 (64%)	0.13 (64%)	0.09 (43%)	0.07 (16%)	0.19 (43%)
\$130	0.09 (65%)	0.07 (48%)	0.07 (53%)	0.09 (63%)	0.13 (40%)	0.06 (18%)
Ethical features mentioned						
No features mentioned	0.12 (70%)	0.09 (50%)	0.12 (70%)	0.10 (55%)	0.08 (19%)	0.11 (26%)
2 features mentioned	0.16 (60%)	0.14 (56%)	0.15 (57%)	0.13 (52%)	0.14 (27%)	0.13 (24%)
4 features mentioned	0.13 (60%)	0.12 (54%)	0.18 (83%)	0.12 (54%)	0.19 (28%)	0.15 (22%)

Table 3: Purchase Probabilities and Percentage of Total Purchases for Soap by Ethical Attributes

		Probability of buying ethical product (% total purchases)			Probability of Buying Brand	
Sample		Biodegradable	Animal testing	Animal by-products	International	Domestic
	Hong Kong	0.21 (52%)	0.23 (58%)	0.21 (54%)	0.21 (53%)	0.19 (47%)
	Australia MBA	0.20 (50%)	0.22 (55%)	0.20 (51%)	0.20 (53%)	0.18 (47%)
	Amnesty International	0.16 (65%)	0.20 (85%)	0.16 (61%)	0.12 (44%)	0.15 (56%)
Price of Soap						
	\$0.45	0.25 (57%)	0.27 (61%)	0.17 (39%)	0.19 (44%)	0.24 (56%)
	\$1.05	0.25 (61%)	0.28 (67%)	0.28 (67%)	0.16 (39%)	0.25 (61%)
	\$1.65	0.16 (53%)	0.23 (75%)	0.23 (75%)	0.19 (60%)	0.12 (40%)
	\$2.25	0.08 (48%)	0.11 (63%)	0.07 (37%)	0.13 (69%)	0.06 (31%)
Ethical features mentioned						
	No features mentioned	0.22 (57%)	0.23 (60%)	0.19 (51%)	0.20 (52%)	0.18 (48%)
	1 feature mentioned	0.18 (57%)	0.22 (70%)	0.18 (57%)	0.16 (48%)	0.17 (52%)
	2 features mentioned	0.18 (53%)	0.22 (66%)	0.19 (56%)	0.17 (50%)	0.17 (50%)
	3 features mentioned	0.17 (61%)	0.22 (73%)	0.16 (59%)	0.14 (52%)	0.13 (48%)

Table 4: Latent Class Binary Logistic Regression Based Segments for Athletic Shoes
(Dependent Variable = Purchase Intention, Yes or No)

	Segment 1	Segment 2	Segment 3	Differences in Segments (p)	Combined Sample
Intercept	-1.149	-0.141	7.221***	.000	4.165***
Functional Features					
Shock Absorption (Low v High)	2.313*	2.649**	4.230***	.150	5.619***
Weight (Lighter v Heavier)	-0.929	-2.182*	-1.276	.960	-2.995**
Suppleness (Ankle Support; Low cut v High cut)	-1.193	-4.316***	0.102	.033	-3.994***
Sole Durability (Short v Long)	1.765	1.883	5.744***	.002	4.756***
Breathability (Low v High)	1.292	1.808	3.790***	.110	4.643***
Fabric (Synthetic v Leather)	-0.273	-0.022	-0.500	.930	-1.009
Reflectivity (No v Yes)	-0.074	0.075	1.734	.380	0.838
Comfort/Fit (Low v High)	4.603***	1.356	6.637***	.000	8.048***
Price (log)	-2.169*	-2.586**	-8.946***	.000	-9.649***
Social Features (Yes v No)					
Child Labor	-7.179***	-3.716***	-0.044	.000	-7.126***
Minimum Wage	2.868**	1.049	1.543	.160	3.421***
Dangerous Working Conditions	-5.879***	-4.649***	1.550	.000	-5.912***
Living Standards	3.021**	-1.469	0.464	.004	1.608
Brand					
Nike	-1.658	2.587**	4.769***	.000	3.488***
Adidas	0.476	0.978	0.086	.900	1.508
Sample					
Gender	2.394**	-2.534**	0.817	.037	-1.310
Age	-0.300	0.307	0.049	.940	0.012
Education	-1.181	0.516	1.493	.320	-0.581
Hong Kong (Proportion in Segment)	-2.730**	2.210*	2.949**		5.321***
Australia MBA (Proportion in Segment)	0.464	0.374	-1.159	.005	0.616
Amnesty International (Proportion in Segment)	3.273***	-2.675**	-2.827**		-4.480***
R ²	0.2089	0.2288	0.3457	0.3190	0.2432
Percent of Total	0.4122	0.3677	0.2201		

Note: * p < 0.05 ** p < 0.01 *** p < 0.001

Table 5: Latent Class Binary Logistic Regression Based Segments for Bar Soap (Dependent Variable = Purchase Intention, Yes or No)

	Segment 1	Segment 2	Segment 3	Differences in Segments (p)	Combined Sample
Intercept	-13.182***	-14.972***	-4.629***	.000	-5.239***
Functional Attributes					
Shape (Square v Round)	2.002*	1.509	0.013	.360	1.903*
Natural Ingredients (Yes v No)	1.071	3.185**	1.048	.240	3.124**
Scent (Yes v No)	1.603	1.999*	0.842	.710	2.686**
Artificial Coloring (Yes v No)	-1.268	-1.704	-0.107	.530	-2.803**
Moisturizer (Yes v No)	1.832	3.516***	1.452	.320	3.529***
Anti-Bacterial (Yes v No)	0.993	0.901	1.338	.940	2.092**
Pore Clogging (Yes v No)	-5.361***	-13.119***	-0.666	.000	-14.187***
Makes Acne Worse (Yes v No)	-5.251***	-12.775***	-2.766**	.000	-15.167***
Price (log)	-4.677***	-3.653***	-11.008***	.000	-11.302***
Social Attributes (Yes v No)					
Biodegradable	5.020***	1.693	1.510	.015	4.805***
Animal Testing	-10.846***	-3.104**	-1.048	.000	-13.121***
Animal By-Products	-6.114***	-1.024	-0.223	.000	-5.036***
Brand					
Local (vs International)	0.269	-0.598	-3.005**	.054	-0.825
Sample					
Gender	1.154	1.692	-2.611*	.031	-1.194
Age	-0.850	-0.158	0.920	.580	-0.899
Education	-0.446	-0.898	1.269	.420	0.017
Hong Kong (Proportion in Segment)	-2.297* (0.008)	3.189** (0.502)	0.750 (0.159)		0.795
Australia MBA (Proportion in Segment)	0.226 (0.193)	-0.395 (0.388)	0.064 (0.589)	.000	0.442
Amnesty International (Proportion in Segment)	3.738*** (0.799)	-3.348*** (0.110)	-0.953 (0.253)		-1.183
R ²	0.4142	0.3741	0.3712	0.4412	0.2911
Percent of Total	0.4506	0.3649	0.1846		

Note: * p < 0.05 ** p < 0.01 *** p < 0.001

Table 6: Experimental Conditions for Study 2

Product features	Pair Types							
	Type 1		Type 2		Type 3		Type 4	
Brand	X	Y	X	Y	X	Y	X	Y
Functional attributes	G	G	G	G	B	G	G	B
Ethical attributes	B	G	G	B	G	B	B	G

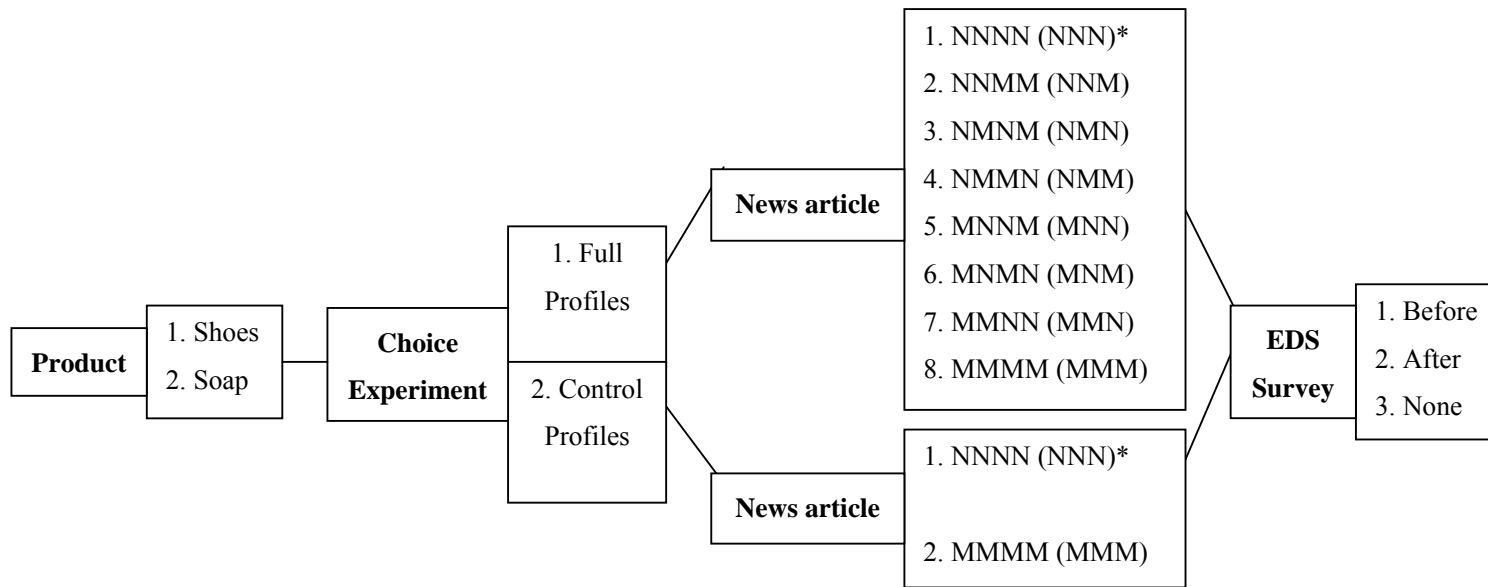
Note: G implies that all functional/ethical features are at ‘good’ levels; B implies that all functional/ethical are features at ‘bad’ levels. For shoes, brand X was Adidas and brand Y was Reebok. For bar soaps brand X was an international brand and brand Y a local brand.

Table 7: Likelihood of Choice by Pair Type

	Pair Types							
	Type 1		Type 2		Type 3		Type 4	
Brand	X	Y	X	Y	X	Y	X	Y
<i>Athletic Shoes</i>								
Percent Choosing	16	36	40	12	10	32	32	09
Percent Choosing Neither	48		48		58		59	
<i>Bar Soap</i>								
Percent Choosing	24	52	55	21	12	46	50	10
Percent Choosing Neither	24		24		38		40	

Note: Brands X and Y as indicated in Table 6.

Figure 1: Experimental Conditions for Study 1



N= Ethical feature is not mentioned in the article and M= Ethical feature is mentioned in the article
 *Conditions for soap are in brackets

Order of ethical features (e.g., MMMM implies that all ethical features are mentioned in the article)
 Shoes: 1) child labor, 2) workers paid minimum wage, 3) working conditions, and 4) living conditions
 Soap: 1) biodegradable formulation, 2) animal testing, and 3) animal by-products used as ingredients

Figure 2: Percentage of Respondents Choosing an Athletic Shoe Brand with ‘Good’ Ethical Features

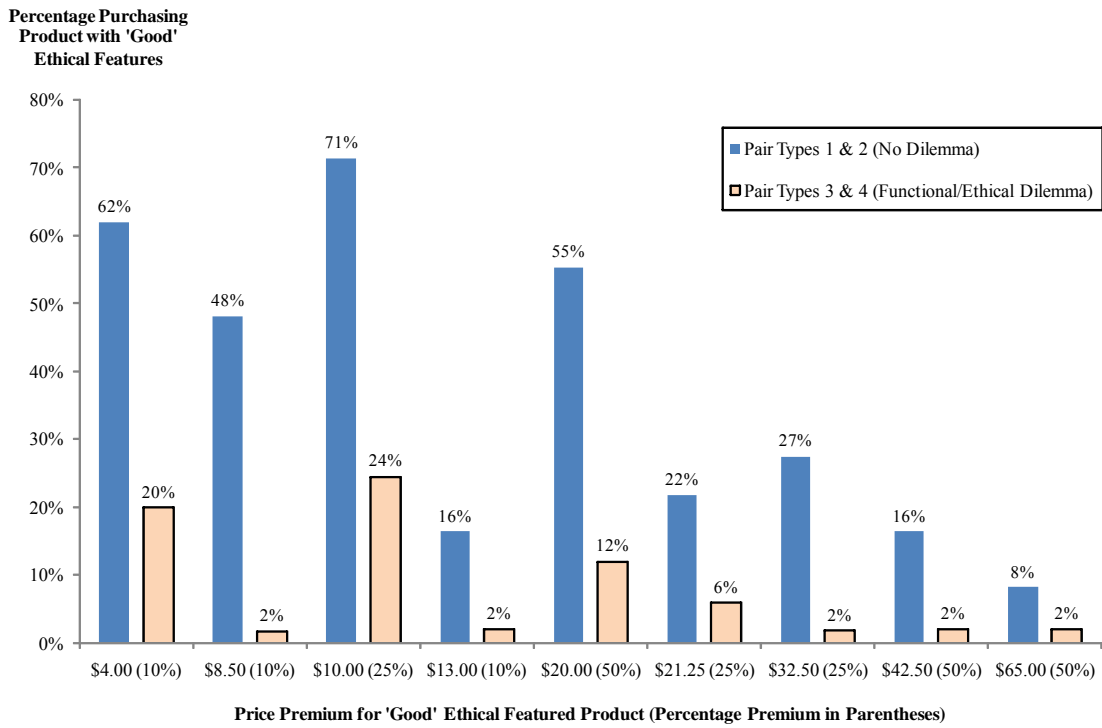
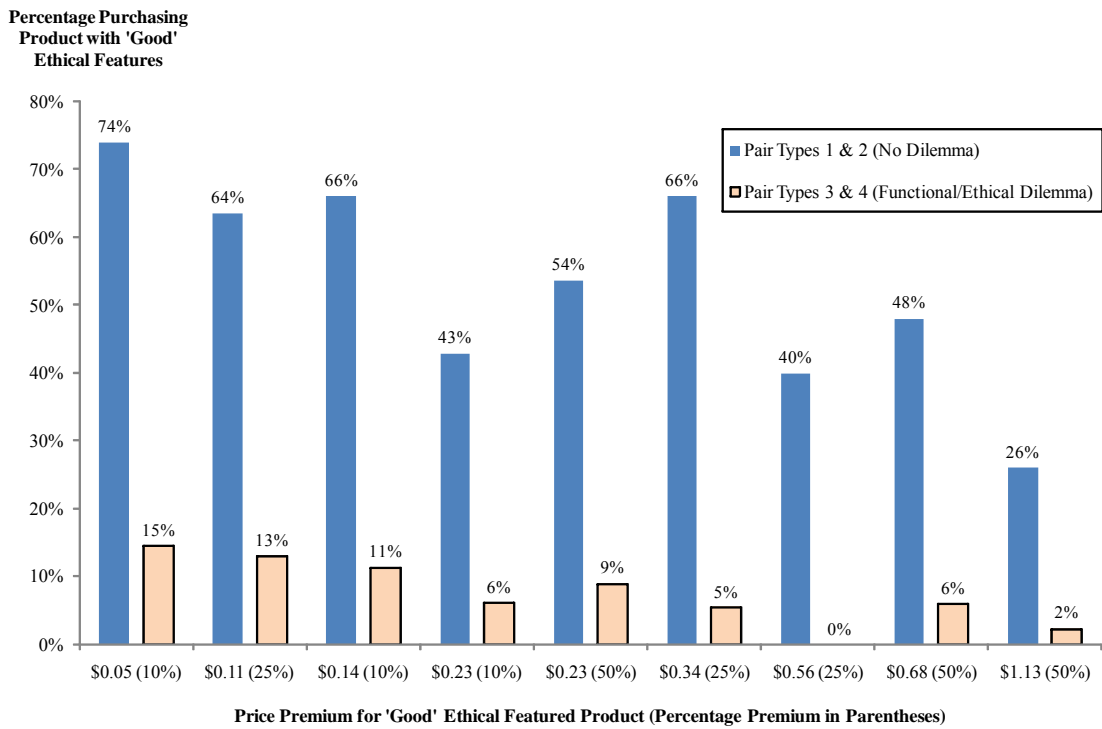


Figure 2: Percentage of Respondents Choosing a Bar Soap Brand with ‘Good’ Ethical Features



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