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College Student Perceptions Toward Prosocial Consumers

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Professor Joerg Bibow
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I. Introduction

In the current market climate, trends are favoring those who can provide environmentally and sustainable products. In a cross-continental comparison, preferences of consumers towards different label types were compared and results found that US consumers placed the more emphasis on functional labels with a purpose or message that have a sustainable dimension compared to consumers from France, Quebec, and Spain (Zepeda, Sirieix, Pizarro, Corderre, and Rodier, 2013). In order of preference, US respondents ranked the USDA Organic label and Fairtrade label as 3rd and 5th, respectively, while the other labels in the top 5 included a theme relating to sustainability (Zepeda et al., 2013). Because of the trend towards greener products, there has been a focus in academia regarding eco-labels. Zepeda et al. (2013) had found that labels work best on consumers who have a positive perception of the label’s message and that the message fits with the consumer’s personal values and behaviors. In Denmark, purchasing data found that eco-labeled products were more likely to be bought by consumers who had higher levels of knowledge and trust in a label (Daugjerg, Smed, Andersen, and Schwartzman, 2014). Additional factors, including income level and geographical residence of a consumer were significantly correlated with organic purchases (Daugjerg et al., 2014). Research has also shown that a consumer's level of ecological motivation is positively related to their preference for green products (Hahnel, Arnold, Waschto, Korcaj, Hillman, Roser, and Spader, 2015). Hahnel et al. (2015) found that consumers with high ecological motivation preferred green products even when the labels provided contradicting information. Other research has indicated that the relationship between ecological motivation and willingness to pay is minimally affected by factors, such as taste (Hahnel et al. 2015; Sorqvist, Hedblom, Holmgren, Haga, Langeborg, Nostl, and Kagstrom, 2013) However, in related contexts, research has not examined the next
step of potential factors that might affect the consumption of prosocial products, which would be whether there are social repercussions in the form of moral and environmentally related perceptions towards consumers of prosocial products. The current research seeks to capture and quantify this social consequence through the means of experimental methods. In addition, because most of the empirical literature on consumer research and prosocial labels has been done outside of the US, the current experiment will add to the US based literature on the topic of eco-labels.

Because the research goal is to understand the purchasing perspective from the viewpoint of the individual, the principles from behavioral economics seemed to be the natural choice to guide the current research goal. The aforementioned research has suggested that there is a great deal of psychology involved with the purchasing of green products. Behavioral economics looks to amend traditional economic assumptions by adding a psychological motivation to explain and predict behavior (Laibson and List, 2015). This definition of behavioral economics extends itself within the field of consumer research, as consumer research is about learning the factors affecting the behaviors of the buyer. First and foremost, the goal of consumer research is to understand which consumers will purchase certain green products and the reasons why. Behavioral Perspective Model of Consumer Choice (BPM) (Foxall, 1992) analyzes the consumer decision process by understanding the influences that affect the final decision and the reinforcement of later consumption. BPM will provide the conceptual framework to understand whether a consumer’s routine purchasing of a prosocial product may affect how other people perceive that consumer. The current research will examine moral and environmental perceptions, both separately and combined, towards the prosocial consumer. Because there is a link between personal values and behaviors regarding the environment and a consumer’s purchasing of
prosocial products, the hypothesis would be that an individual would perceive the consumer as someone who is environmentally friendly. Moreover, the research also attempts to understand whether individuals will perceive consumers who purchase prosocial goods as more moral than consumers who do not purchase prosocial goods.

The current experiment will set out with a between-subjects design in order to collect data necessary to answer the research question. The experiment will have four conditions and include a vignette that describes a consumer’s morning routine with a mention of a habitual consumption of instant coffee paired with a photo of that brand of coffee. The brand of coffee consumed and the gender of the consumer in the vignette will vary between the four conditions. The presentation of the vignette will be followed by scales measuring the respondent’s moral and environmentally friendly perceptions of the consumer, and will end with demographic questions and follow-up questions concerning the respondent. The research will focus on whether respondents will perceive the consumer of fair-trade organic coffee as more moral and environmentally friendly than the consumer of conventional coffee. The hypothesis for the current experiment would purport that respondents will have more positive attitudes towards consumers of prosocial goods.

In the literature review I will discuss the previous findings there have been in relation to the effects and most effective uses of eco-labels by using US based research. In addition, I plan to provide research that will validate my research design. Following that, I intend to discuss the conceptual framework that will be used to guide my research questions. In section III, I will restate my research question and discuss my expected hypotheses. After providing a brief recap, I will go into my research methodology. This will include a more detailed explanation of the population/sample, instrumentation, experimental procedure, and the results. Section IV will
conclude the results by discussing ideas for future research, how they might affect the paternalistic policy debate, and the potential marketing implications of my findings.

II. Literature Review

It was found for college students in the US that there was a congruency between eco-friendly attitudes and eco-friendly behaviors in individuals (Dahm, Samonte and Shows, 2009). Many students who displayed positive attitudes towards organic foods were more likely to be consuming organic foods on-campus, off-campus, and at home (Dahm et al., 2009). This predictive pattern between attitudes and behaviors extended itself to exercise, as there were significant relationships between positive attitudes towards organic foods and a healthy diet, regular exercise and consumption of organic foods (Dahm et al., 2009). The aforementioned findings identified evidence in favor of associations between green products and an environmentally healthy lifestyle as well as an indication of familiarity with organic foods among the college population. These results could suggest that individuals who participate in environmentally healthy lifestyles may be more likely to perceive a perpetual consumer of fair-trade coffee as more favorable.

In regards to eco-label, a study compared the effectiveness of five different eco-labeling techniques used for eco-friendly cars and found that participants viewed comparative labels as the most effective type (Teisl, Rubin and Noblet, 2008). The comparative labels provided a visual score of a car’s eco-friendliness against other models in the same vehicle class (Teisl, Rubin and Noblet, 2008). However, results also found that between the five different label conditions with varying information, there were relatively small differences in perceived label effectiveness (Teisl et al., 2008). Educated people were found to have placed more of an
emphasis on the information within eco-labels and were more likely to trust them because they were in a better position to understand how their purchase mattered in making an environmental impact (Teisl et al., 2008). However, those results were in relation to car labels and there are many other considerations that can go into purchasing a car as it typically requires a larger investment. Education will be an important consideration because it could be possible that the function of an individual’s perception towards prosocial consumerism might be affected by their knowledge of the certification process regarding eco-labels.

Research has reported that people can have an overlap in associations between non-certified terms such as “eco-friendly” and “sustainable” with certified terms such as “local” and “organic,” especially in younger consumers (Campbell, Khachatryan, Behe, Dennis, and Hall, 2015). The results also found that participants were more likely to associate non-certified terms attached to goods as sales gimmicks (Campbell et al., 2015). Coffee is less likely to fall under this trap of incorrect associations as most prosocial brands use two certified labels: USDA Organic and Fair Trade. A field experiment carried out by Stratton and Werner (2013) found that consumers preferred fair-trade coffee versus regular coffee across three different label conditions. Those results help signify the assumption that most people are aware of the purported goals of fair trade coffee and are visually familiar with the label. In addition, coffee is a non-durable good that needs to continually be purchased. This provides a greater indication that someone is consistently committing to a prosocial behavior. Other experiments have examined the effect labels or advertising have had on perceptions towards durable, environmentally responsible products, such as a hybrid car (Teisl et al., 2008). The reason a durable good was not used in the description was because it did not give an indication of a consistent habit. There have been other experiments that have examined how self-created social labels affected consumer
behavior on clothes and other home items (Stratton and Werner, 2013; Prasad et al., 2004; Hiscox and Smith, 2006). These experiments found results in favor of prosocial labels as evidenced by increased willingness-to-pay for socks not made in sweatshops and an increase in sales for labeled towels and socks (Stratton and Werner, 2013; Prasad et al., 2004; Hiscox and Smith, 2006). But because the time of purchase between such goods can vary so much, it makes it difficult to generalize the effect of the aforementioned prosocial self-made labels. Because instant coffee will be used for comparison, due to its commonplace and popularity with most people, respondents may be more inclined to believe that the consumer who is drinking fair-trade, organic coffee is more committed to prosocial behaviors and the beliefs associated with it than a consumer who is not routinely purchasing fair-trade, organic coffee.

Literature has argued that there are three different motivations to explain an individual's prosocial behaviors (Airley, Bracha, and Meier, 2009). These categories include intrinsic, extrinsic and image motivation. Intrinsic motivation would entail an individual who has altruistic preferences when it comes to his/her behaviors. Extrinsic motivation is explains an individual who prefers a material reward as a consequence of their prosocial behavior. Lastly, there is image motivation that deals with an individual whose actions are a function of how others’ perceive him/her. Research found that extrinsic incentives, such as monetary incentives, were more effective in assisting private prosocial behavior (Airley, Bracha, and Meier, 2009). The results suggested that people prefer receiving incentives if there is a lower visibility for their actions, because such incentives decrease the image value of a prosocial behavior. The current experiment focuses on whether respondents perceive the fair-trade, organic instant coffee consumer's prosocial behavior as either intrinsically motivated or image motivated.
Research by Winterich and Barone (2011) examined consumers' self-construct and social identification when examining consumer preference for discount versus donation-based promotions. A self-construal individual is someone who is more inclined to identify with certain groups while an individual with a cause-related social identity is someone who is inclined to identify with a specific cause. They found that those who identified with the causes of a particular charity or individuals who were more inclined to consider the welfare of others were more likely to prefer discount-based promotions (Winterich and Barone, 2011). Standard economics assumes that consumers share the standard perspective of homoeconomicus, a rational decision-making being that formulates its final choice outside of other factors. However, the results were interesting because they were able to find a preference in consumers for a noneconomic promotion, which goes against the conventional view of decision-making in neoclassical economics. Therefore, it is important to understand how much of economic behavior can be influenced by/associated with noneconomic factors.

The goal of this research is to achieve insight into how pervasive prosocial labels have become in providing social persuasion and/or reinforcement. One of the factors that will be assessed includes whether or not individuals who already partake in environmentally friendly practices will also have a positive perception towards the consumer who uses prosocial products. Field research in the UK found that celebrity endorsement, either face-to-face or on printed materials, provided immediate effects when it came to encouraging donations (Sanders, 2015). The results also found that the individuals who had donated in the past were more likely to be given a push to donate again when there was a form of celebrity endorsement (Sanders, 2007). This aforementioned scenario indicates a case of social reinforcement, where there is an encouragement for a repeat behavior in individuals who also display congruent behaviors.
However, if an individual who does not partake in prosocial practices but has a positive perception towards the consumer who uses prosocial products, then that would indicate social persuasion. Learning of these effects could give companies an idea on which groups to target their marketing towards.

*Behavioral Perspective Model*

The current research considered multiple models as the conceptual framework for the following experimental analysis. The most straightforward of the consumer choice related frameworks is the Generic Consumer Decision-making model, which is a linear five-stage model that breaks down the process of the consumer’s choice (Paren 2015; Peter & Olsen, 2012; Kotler et al., 2012). The model’s strength is that it provides a clear order of events regarding the purchasing behavior of a consumer, yet it de-contextualizes a very complex process. Moreover, the aforementioned model does not take the setting in which the decision is made into account. The Persuasion Knowledge Model (PKM) attempts to understand these complexities, by looking to understand how consumers develop methods to deal with and process the information from different advertisers (Zepeda et al., 2013; Friestand and Wright, 1994). PKM only focuses on the interaction between the consumer and the advertiser and fails to explain how interactions between consumers might explain purchase behavior. Lastly, there is the Identity Based Motivation (IBM) theory that argues that consumers make their purchasing decisions based on achieving a desired identity (Zepeda et al., 2013; Oyserman, 2009). IBM’s main principle is that purchasing patterns are an expression of the consumer’s identity and less so a consequence of social interactions with other consumers. Foxall’s (1992) Behavioral Perspective model (BPM) is the choice framework of the experiment because of its comprehensive explanation of how all the
aforementioned factors might drive a consumer’s choice. BPM helps provide a deeper explanation of the decision-making process by considering both the setting that a consumer makes his/her choice in and the utilitarian and informational reinforcement received from the final decision.

BPM is based upon principles from operant conditioning, which uses reinforcements and consequences to explain the strengthening or weakening of a particular behavior. The utilitarian reinforcement is the amount of utility the buyer receives from purchasing a product or service. The vignette in the current experiment includes a sentence that signifies the high utility that a consumer receives from drinking a particular type of coffee. This is done by stating how the consumer always drinks one particular brand of coffee every morning. The informational reinforcement is an indication of how well the consumer is doing, such as that consumer’s particular social status. The level of informational reinforcement varies and the distinction between high and low reinforcement lies within a continuous spectrum as the purchase of an expensive car would give a better indication of a well-off financial standing than the purchasing of an expensive pair of shoes. However, the Fair-Trade, Organic coffee used in the current experiment can be considered a product within the category of high informational reinforcement. The reason being that such prosocial labels come with positive social and environmental goals, which can be associated with a healthy or eco-friendly lifestyle (Dahm et al., 2009). Part of this lifestyle can include the purchasing of other prosocial goods. Research has shown that consumer's with a high level of pro-environmental motivation, strongly prefer green products (Hahnelet al., 2015). Moreover, the lifestyle could also include other habits eco-friendly habits, such as recycling (Dahm et al., 2009). The research is also looking to find whether a consumer's purchasing of a prosocial good is also perceived as more moral by other individuals. In relation
to the research question, the belief would be that an individual’s positive attitudes towards a consumer of prosocial products would provide a high level of informational reinforcement to the respondent that the consumer is in favor of prosocial goods. According to this logic, the current research is looking to understand whether an individual would perceive the consumer’s actions as altruistically motivated and if this would lead to a positive perception towards that consumer by another individual. Moreover, it could also be the case that a consumer’s continuous purchasing of an eco-labeled product might be perceived as very egotistically motivated, which in turn may lead to an individual having a negative perception of that consumer.

The setting in which the consumer makes a decision is a crucial aspect of BPM that sets it apart from the Generic Consumer Decision-making model and IBM. These environments can harbor both physical and social stimuli. Within the framework of the model, the setting of the environments can range in their relativeness openness. In the real world, BPM states that a closed setting would entail an environment where the physical and social aspects are largely out of control of the consumer. An example of this would be dining at a Benihana restaurant because the dining culture at the establishment is already set and every restaurant goer shares a similar experience where the chef makes food in front of everyone and uses the same performance techniques. The opposite holds true within an open setting, where any physical, social and verbal pressures are not prevalent. The most basic example of this would be a grocery market because shoppers are unrestricted when it comes to their purchases, and these purchases are free for every other shopper to see. The vignette in the current experiment describes fictional consumer who routinely purchases a product, from which the consumer receives a high amount of utility from, within an open setting (i.e. their home). According to BPM, the purchase of a product that is high in both utilitarian and informational reinforcement within a closed setting is considered routine
purchasing, while when it is done in an open setting it is considered status consumption (Paren, 2015; Foxall and Greenly, 1999). Explain how this may effect the results… It might be more in favor of the theory of change relating to the ego…

In terms of marketing potential, if the hypothesis of the current research was to hold true then it could help to suggest the situations where consumers may be more willing to purchase goods with pro-social labels. If people were to have better perceptions of those who partake in prosocial consumerism, then it indicates that those same people have a positive bias towards products that signify prosocial habits. According to BPM, a high informational product [explain] will more likely be purchased in an open environment, such as a supermarket, because individuals will want to confer a higher social status. Potential results can also give some insight into the relationship between prosocial labels and social persuasion and reinforcement. Social persuasion would entail a changed behavior in an individual who is unconvinced or uninformed about prosocial products. Moreover, social reinforcement would involve encouraging an individual who already purchases prosocial products to continue that behavior.

III. Experiment

Research Hypotheses

According to BPM, the current experiment sets out to understand how a consumer who purchases a high utility good within an open setting is perceived morally and environmentally, in terms of his habits. My first hypothesis is that the informational reinforcement displayed through the purchase of a product with certified, prosocial labels would lead others to perceive him/her as more environmentally friendly. As mentioned previously, it was found that college students' positive attitudes towards eco-friendly consumption were able to positively predict eco-friendly
behaviors (Dahm et al., 2009). Although the researchers found that relationship in the opposite direction from where my experiment is focusing on, there does seem to be a link between eco-friendly attitudes and behaviors. I expect that the fair-trade and organic labels, both of which are certified through developed standards, will provide a cue to the respondents, which will lead the participants to form an association of that logo with other eco-friendly behaviors.

The second hypothesis in this experiment is that there will more positive moral perceptions toward the fair trade, organic instant coffee consumer compared to the consumer in the conventional coffee condition. Both the Fair Trade label and the USDA Organic label have purported social and environmental goals and knowledge of these may lead to respondents believing that the consumers purchasing habits are aligned with his/her own personal beliefs regarding social causes. However, this significance can go in either direction. According to BPM, the purchasing of a high utility good in an open setting is defined as status consumption. Individuals can interpret this consumption pattern in one of two ways. One expectation could be that an individual will interpret a consumer’s continuous purchasing of an eco-labeled good, in this case with two certified labels, as an altruistic action. If individuals believe the consumer is buying a certified and labeled product because it is a reflection of his/her own humanitarian or prosocial beliefs, then individuals will perceive the consumer as a more moral individual. The other way in which an individual can perceive this consumption pattern would be one that reflects the consumer’s own egotistical nature. In this case, individuals will perceive the fair-trade, organic coffee consumer as less favorable and consequently, less moral as an individual.

Following the logic from the first and second hypotheses, my final hypothesis is that overall perceptions will be higher towards the consumer of fair-trade, organic instant coffee. This includes both moral and eco-friendly perceptions. Despite the uncertainty in the hypothesized
direction of significance in the second hypothesis, I believe that because the product in the experimental condition uses certified labels, as opposed to non-certified ones, then that will provide more of an indication of activism through consumerism. [College students will be used] The USDA organic label is meant to signify that a product was made with ingredients or processes that met an approved sustainable standard (USDA). The Fair Trade label is associated with a social goal of providing higher pay and better treatment for producers and to promote the use of more environmentally friendly farming practices (Fair Trade USA). These factors might then contribute to individuals associating the goals of these labels with the consumer who purchases the labeled product, and as a result will perceive them more favorably than a consumer of conventional instant coffee.

Method [Include table]

Population and Sample

The population of the sample included undergraduate students who were studying in the United States. The sample included 42 students (N=42), 58% of respondents were male and 43% were female. The mean age of the group was 20.77 years (SD = 1.32), with a range of 18 to 23 years. The racial ethnic background of students was 83% Caucasian, 8% Asian, 5% Black or African-American, 5% Other. The majority (48%) of the students were classified as Senior; the remaining students were 23% Junior, 15% Freshman, 13% Sophomore and 3% classified as Other. Socioeconomic upbringing for 50% of the participants was Middle-Upper, followed by 23% Upper, 23% Middle, 3% Low-Middle Unsure and 3% were Unsure. The majority (54%) of students had a major related to social sciences; the remaining field of studies were 21% Natural Science, 13% Double major, 8% Humanities, and 2% Quantitative reasoning.
Instrumentation

A survey was created in order to collect data for the research question. There were no incentives provided for participation in the experiment. The entire survey was 6 pages long and consisted of an informed consent page, vignette, a modified version of the Feelings of Obligation to Others Scale (FOOS), a modified version of the National Geographic GreenDex calculator, the former consisted of 9 questions and latter with 10, and a debriefing section (Goff and Noblet, 2016; Einolf, 2010). The first six follow-up questions requested demographic information about the participant: age, gender, racial background, class year, socioeconomic upbringing and major. The following three questions assessed the participants’ familiarity with the brand of coffee that was presented in their respective condition. Three questions gauged participants’ familiarity, trust, and understanding of Fair Trade. The final three questions assessed behaviors and attitudes relating to organic foods. All together, these questions took participants 5 to 10 minutes to complete. The current experiment did not undergo any certification from the Institutional Review Board.

Procedure

A survey was created using Qualtrics and it included a consent form, one of four vignettes, a moral perception subscale, an eco-friendly perception subscale, all of which used a sliding scale without having any numerical values presented, demographic questions, follow-up questions, and a debriefing form. The current experiment used a between-subjects experimental design and randomly assigned participants into one of four conditions. Each vignette was 3 sentences long and described Alex or Alexa’s morning routine, the time they wake up, their habitual consumption of instant coffee, and the type of brand they consistently consume. Each vignette was paired with a photo of the corresponding brand of coffee. This created a 2 (fair-
trade organic versus conventional) x 2 (male versus female) design that allowed for the comparison in attitudes toward four different groups; male fair-trade organic coffee drinker, female fair-trade organic coffee drinker, male conventional coffee drinker, and female conventional coffee drinker. The main focus of the research was to understand the differences between the two coffee conditions. The reason the male and female conditions were included in the experiment were in order to control for potential gender differences in affective perceptions. The brands of coffee used in the vignettes were Mount Hagen Fairtrade Organic Coffee and Jacobs Cronat Gold. I felt that Mount Hagan Fairtrade Organic Coffee (see Fig 1) was a good brand to use in the experimental condition because it provided the necessary information in the name to describe the types of label certifications it had. Moreover, I felt that Jacobs Cronat Gold (see Fig 2) brand coffee was an ideal coffee for the control condition because it had no certified labels associated with it and did not give away any clues as to what the other condition might have been.

*Figure 1* Mount Hagan Fairtrade Organic Coffee
Following the consent form was a presentation of one of the four vignettes and then questions evaluating the participants' attitudes towards the person that they had just read about. They were asked to rate nine different statements related to the character's perceived morality by using a sliding scale on how much they agreed or disagreed with the statement. Some questions evaluated participants' affective evaluations towards Alex or Alexa (i.e. An individual who would work hard even if they didn’t like or respect their employer). Other questions evaluated how participants' believed others would view Alex or Alexa (i.e. Someone who is viewed as successful by their peers). The same method of response was then used for ten modified National Geographic GreenDex questions, which measured the character’s perceived environmental friendliness (National Geographic). Questions that were asked mainly focused on the character’s likeliness of engaging in environmentally friendly behaviors (i.e. Someone who prefers to purchase local products). Roughly half of the questions in both scales were reversed scored (i.e. Someone who replaces broken items before trying to fix them). The purpose of this technique was to serve as a robustness check of the participants’ responding patterns. All surveys were programmed to be presented randomly.
After the presentation of the scales, demographic and follow-up questions were presented. Respondents were asked to answer a total of fifteen questions pertaining to personal characteristics as well as habits, knowledge and attitudes relating to fair-trade and organic products. After the demographic and follow-up section was completed, participants were debriefed on the nature of the study and the research hypothesis. Data was collected and stored through Qualtrics.

Results

After a week of administering the survey, all of the data was collected, cleaned, and the necessary items were reverse scored. The responses from the moral and eco-friendly subscales were then put into three categories. The first category was the average of the moral perception score, the second was an averaged eco-friendly perception score, and finally the overall average perception score. This process was done for each participant by taking the average from the corresponding questions values of the questions that they choose to answer. For example, if a participant only completed five of the eight questions from the Feelings of Obligation to Others Scale, then the average of those four values represented the participants’ moral perception of towards the character in the vignette. The rationale being that participants answered the questions they found to be relevant in measuring their perceptions towards the character, and because averages were taken, all averaged scores were similar in value. The only difference being that certain respondents found more questions relevant in evaluating perceptions towards the character than others. Once those averages were taken, I ran six separate one-way analysis of variances using a 95-percent confidence interval. Following the one-way ANOVAs, I ran eight separate two-sample t-tests with unequal variances to examine the difference in pro-environmental and moral perceptions between the male vignettes, the female vignettes, male and
female fair-trade vignettes and male and female conventional coffee vignettes. Afterwards, I ran two-way ANOVAs using the Coffee Condition and various follow-up questions as my independent variables and the average eco-friendly perception score to observe how respondents' knowledge, behavior, preference and trust may have had an effect on their respective affective evaluations. For the follow-up questions that included more than three options on the Likert scale, they were modified and put in one of two groups depending on the question. For example, respondents who indicated that they seek out organic food at least half of the time or more, then that behavior was categorized in a group that was in favor of organic purchasing food, which was denoted in the data with a 1. Those who indicated anything otherwise were categorized in group that was not in favor of purchasing organic foods, which was denoted in the data with a 0. For a more detailed explanation of the variables in the current experiment see table 1.

Table 1

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moral Average</td>
<td>Moral perceptions towards the consumer (0-100)</td>
</tr>
<tr>
<td>Environmental Average</td>
<td>Environmental perceptions towards the consumer (0-100)</td>
</tr>
<tr>
<td>Total Average</td>
<td>Overall perceptions towards the consumer (0-100)</td>
</tr>
<tr>
<td>Brand Familiarity</td>
<td>The respondent's familiarity with the brand presented in the vignette (Yes-1, No-2, Unsure-3)</td>
</tr>
<tr>
<td>Price Guess</td>
<td>The respondent's estimation of the price of the coffee in the vignette ($0-$20)</td>
</tr>
<tr>
<td>Fair Trade Recognize</td>
<td>Whether or not the respondent visually recognizes Fair-Trade logo (Yes-1, No-2, Unsure-3)</td>
</tr>
<tr>
<td>Fair Trade Understand</td>
<td>Respondent's knowledge of the Fair-Trade certification process (Yes-1, No-2, Unsure-3)</td>
</tr>
<tr>
<td>Organic Behavior</td>
<td>How often the participant seeks organic food options (Buys Organic Foods-1, Doesn’t Buy Organic Foods-2)</td>
</tr>
</tbody>
</table>
Organic Preference | The degree to which the respondent prefers organic foods (Prefers-1, Doesn't Prefer-2)  
Label Trust | The respondent's trust in the certified labels (0-100)  
Pro-Environmental Behavior | How often the respondent engages in pro-environmental behavior (Engages-1, Doesn't Engage-2)  

**Main Treatment Effect**

After running one-way ANOVAs for total average perception score and vignette condition, eco-friendly average perception score and vignette condition, and moral average perception score and vignette condition, total average score perception score and coffee condition (fair-trade organic vs. non fair-trade organic), eco-friendly average perception score and coffee condition, and moral average and coffee condition, only one test proved significant at the 5% level (see Tables 2.1-2.6). Preliminary results (see Table 2.5) indicated that participants had more eco-friendly perceptions of the fair-trade coffee drinkers than towards the conventional coffee drinkers ($F(1, 33) = 4.70, p = .03$).

**Table 2.1**  
One-way Analysis of Variance of Overall Perceptions by Vignette Condition

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3</td>
<td>739.961337</td>
<td>246.653779</td>
<td>1.52</td>
<td>0.2297</td>
</tr>
<tr>
<td>Within Groups</td>
<td>31</td>
<td>5042.64408</td>
<td>162.665938</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>5782.60542</td>
<td>170.07663</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Indicates statistical significance at the p>0.10 levels respectively.  
**Indicates statistical significance at the p>0.05 levels respectively.  
***Indicates statistical significance at the p>0.01 levels respectively.

**Table 2.2**  
One-way Analysis of Variance of Environmental Perceptions by Vignette Condition
**Table 2.3**

*One-way Analysis of Variance of Moral Perceptions by Vignette Condition*

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3</td>
<td>2012.47867</td>
<td>670.826225</td>
<td>2.34</td>
<td>0.0923*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>31</td>
<td>8877.2747</td>
<td>286.3637</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>10889.7534</td>
<td>320.286864</td>
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<td></td>
</tr>
</tbody>
</table>

*Indicates statistical significance at the p>0.10 levels respectively.
**Indicates statistical significance at the p>0.05 levels respectively.
***Indicates statistical significance at the p>0.01 levels respectively.

**Table 2.4**

*One-way Analysis of Variance of Overall Perceptions by Coffee Condition*

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>570.860258</td>
<td>570.860258</td>
<td>3.61</td>
<td>0.0660*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>33</td>
<td>5211.74516</td>
<td>157.931671</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>5782.60542</td>
<td>170.07663</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Indicates statistical significance at the p>0.10 levels respectively.
**Indicates statistical significance at the p>0.05 levels respectively.
***Indicates statistical significance at the p>0.01 levels respectively.

**Table 2.5**

*One-way Analysis of Variance of Environmental Perceptions by Coffee Condition*

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
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<tr>
<td>Between Groups</td>
<td>1</td>
<td>570.860258</td>
<td>570.860258</td>
<td>3.61</td>
<td>0.0660*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>33</td>
<td>5211.74516</td>
<td>157.931671</td>
<td></td>
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</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>5782.60542</td>
<td>170.07663</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Indicates statistical significance at the p>0.10 levels respectively.
**Indicates statistical significance at the p>0.05 levels respectively.
***Indicates statistical significance at the p>0.01 levels respectively.
Further analysis showed that gender effects may have had a role in driving the within-groups significance in environmental perceptions between the fair trade and non-fair trade conditions. I ran eight separate two-sample t-tests with unequal variances to examine the difference in pro-environmental and moral perceptions between the male vignettes, the female vignettes, male and female fair-trade vignettes and male and female conventional coffee vignettes. Results showed that the most significant difference relationship was in the pro-environmental perceptions between the male fair-trade coffee vignette ($M=60.70, SE=3.96$) and the male conventional coffee vignette ($M=42.54, SE=6.01$) conditions (see table 3.1); $t(15.99)=-2.52, p=0.01$. Another significant relationship was in the moral perceptions between the female fair-trade coffee vignette ($M=62.31, SE=4.43$) and the female conventional coffee vignette ($M=52.54, SE=2.65$) conditions (see table 3.2); $t(13.92)=-1.89, p=0.04$.

**Table 3.1**
Comparison of Pro-Environmental Perceptions Between Vignettes

<table>
<thead>
<tr>
<th></th>
<th>Female Vignette</th>
<th>Male Vignette</th>
<th>t-value (p-value)</th>
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</thead>
<tbody>
<tr>
<td>Fair Trade</td>
<td>58.75 (5.64)</td>
<td>60.70 (3.96)</td>
<td>0.28 (0.60)</td>
</tr>
<tr>
<td>Conventional</td>
<td>54.58 (4.30)</td>
<td>42.54 (6.01)</td>
<td>-1.63 (0.06)*</td>
</tr>
<tr>
<td>t-value</td>
<td>-0.58 (0.28)</td>
<td>-2.52 (0.01)***</td>
<td></td>
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</tbody>
</table>

Table 3.2

Comparison of Moral Perceptions Between Vignettes

<table>
<thead>
<tr>
<th></th>
<th>Female Vignette</th>
<th>Male Vignette</th>
<th>t-value (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair Trade</td>
<td>62.31 (4.43)</td>
<td>51.20 (4.95)</td>
<td>-1.67 (0.06)*</td>
</tr>
<tr>
<td>Conventional</td>
<td>52.54 (2.65)</td>
<td>55.54 (4.32)</td>
<td>0.59 (0.71)</td>
</tr>
<tr>
<td>t-value</td>
<td>-1.89 (0.04)**</td>
<td>0.66 (0.74)</td>
<td></td>
</tr>
<tr>
<td>(p-value)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Subgroup Analysis

I ran four separate two-way ANOVAs. The coffee condition was the only constant independent variable condition across all of the conditions and the four other independent variables included, the respondent's level of knowledge regarding fair-trade label certification, preference for organic foods, shopping behaviors regarding organic foods, and pro-environmental behaviors. In addition, a one-way ANOVA was run where the independent variable was coffee condition and the dependent variable was the respondent's overall trust in certified labels. Lastly, descriptive statistics were run for the final two variables: brand familiarity and brand price guess.
Of the four ANOVAs that were run, only one of the tests proved to be significant at the 5% level. Preliminary results did not find any significant differences within-groups when including all the variables in the equation. However, there were significant differences in pro-environmental perceptions between coffee conditions in the two-way ANOVAs with the Fair Trade Understand ($F(1, 31) = 4.24, p = 0.04$) and Organic Preference ($F(1, 31) = 4.45, p = 0.04$) variables, which indicates that regardless of respondents' knowledge level or preference for organic foods, both groups still perceived the fair-trade coffee consumer to be more environmentally-friendly than the conventional coffee consumer. On the other hand, these effects were only found at the 10-percent level with the Organic Behavior ($F(1, 31) = 3.82, p = 0.06$) and Pro-Environmental variables ($F(1, 31) = 3.39, p = 0.08$). From the participants who answered the brand familiarity question, 31 out of 35 indicated that they did not recognize the brand that was used in their respective vignette condition. Of the four participants who recognized the respective brands, 3 recognized the conventional instant coffee brand (Jacob's Cronat Gold) and 1 participant recognized the fair-trade organic brand (Mount Hagan). Average brand price guess indicated that participant's found the Mount Hagan Fair Trade Organic Instant Coffee ($M=9.25$) as more expensive than Jacob's Cronat Gold Instant Coffee ($M=8.15$). Finally, there was no significance found in the level of trust in certified labels between the two conditions ($F(1, 33) = 0.48, p = 0.49$).

IV. Conclusion

Discussion

The goal of the research was to understand how a consumer’s purchasing patterns affected how other people would perceive them. In my experiment, I set out to understand
whether someone who routinely purchased fair-trade, organic instant coffee would cause individuals to have a better perceive of him/her compared to a consumer who just purchased conventional, non-labeled instant coffee. The research was designed to understand whether prosocial consumption patterns would lead to higher moral and eco-friendly affective evaluations. BPM was used as a conceptual framework to both help guide the hypothesis and to explain how any potential results might provide potential applications in the field of marketing. These research questions were testing using a sample of college students from various schools in the Northeast of the United States.

The results from the experiment were only able to support my first hypothesis, which was that when examining differences between coffee conditions, individuals would have a more eco-friendly perception of the fair-trade, organic instant coffee consumer. However, there was not enough evidence to support the second or third hypotheses. Unfortunately, higher moral perceptions toward a consumer were not a function of a routine purchasing pattern of fair-trade, organic instant coffee between coffee conditions. Essentially, the results from my experiment suggested that if an individual were to habitually purchase a product with a certified label on it then that might lead others to perceive that consumer as someone who participates in more environmentally conscious behaviors. In addition, it also suggests that the habitual purchase of a product with a certified label on it will not lead to any changes in how individuals morally perceive you.

Further analysis found that respondents had significantly higher pro-environmental perceptions towards the male fair-trade coffee consumer than the male conventional coffee consumer. It was also found that while respondents' pro-environmental perceptions toward the female fair-trade coffee consumers were slightly higher than towards the conventional coffee
consumer, the difference was not significant. One explanation for these gender effects could be that most people are more inclined to assume that females are already more environmentally friendly than males, and providing additional information about their purchasing of prosocial habits will not change that preconceived idea. However, people may not feel that men are traditionally more environmentally friendly than females, and providing information about their prosocial purchasing habits gives a strong indication that that male consumer is much more environmentally friendly than other males. Interestingly, results also found that female fair-trade coffee consumers were perceived as more moral than female conventional coffee consumers. An explanation for this could be that the informational effect of knowing that a female consumer purchases a prosocial product provides a strong enough rationale to perceive them as more moral than the average consumer. In addition, the result could also have been due to the use of the Feelings of Obligation to Others Scale (FOOS) to measure moral perceptions. Because women are typically perceived as more caring than men, potentially due to reasons related to evolutionary psychology, the combination of the informational cue regarding the purchase of a prosocial product and the combination of questions that were related to caring for others, might have had a role in driving the significant results.

It was interesting that regardless of the respondents' knowledge of the fair-trade process or their level of preference for organic foods, participants were still significantly higher in their pro-environmental perceptions towards the fair-trade coffee consumers. This might suggest there is a general understanding and connection between green behaviors and a green lifestyle. While it was interesting to find that none of the subgroup conditions were more significant in their pro-environmental perceptions toward the fair-trade coffee consumers as a function of their level of preference, behavior, knowledge or trust. This further reiterates the connection there is among
college students regarding prosocial consumer habits and lifestyles. However, those results might have been due to most of the participants having been recruited from a liberal arts school in the Northeast. Future research could look to use a larger and more diverse sample.

There could be many potential factors that drove these results. It is possible to suggest that there was a split in the moral perceptions individuals had toward the fair trade coffee drinker. The lack of significance regarding moral perceptions could have been caused by a divide between individuals who felt that the consumer was primarily buying fair-trade, organic instant coffee because of purposes relating to their ego. Concurrently, there could have been other individuals who felt that the consumer was buying fair-trade, organic instant coffee because he genuinely was in favor of the social goals that the labels on the product were trying to promote. If this is the case, it could be that people are unsure of the full benefits that either the fair-trade or the USDA organic labels provide, respectively, and that there needs to be more information regarding these certifications for the general consumer public. In addition, individuals may not have been aware of the purported social goals that either social label was trying to promote and therefore had no way of forming any associations from the vignette. Future research could look to understand whether learning the purported goals of a label and how that subsequently affects the perceptions an individual has towards a consumer who continuously purchases prosocial products. However, another explanation for the lack of significance could have been due to the small sample size in the experiment.

Another factor that may have driven the results was the length of the survey that was administered. Considering that there were no incentives for participants to complete the survey, respondents could have experienced survey fatigue. The survey itself was quite comprehensive, including 19 questions from the modified versions of the Feelings of Obligation to Others and
the National Geographic GreenDex scales, and an additional 15 demographic and follow-up questions. It is possible the length of the survey caused respondents to place less thought into their responses and this could have led to biases in the results. Future research could look to seek approval from the Institutional Review Board in order to be able to provide incentives for potential participants. Another option could be to shorten the amount of questions from both of the scales and from the follow-up and demographic sections.

Another potential explanation for why there was no significance in the difference of moral perceptions may have been because the vignette description and the moral subscale did not pair well together. Certain questions in the modified Feelings of Obligation to Others scale were very particular in their nature (i.e. Someone who would support a government-sponsored international disaster relief even if it would mean spending less money on the nation’s own citizens) while the vignette description was very short and concise. The goal of the vignette was to emphasize the character’s habitual purchase of a particular brand of coffee, while trying to keep all else constant. It could be possible that some of the scenarios might have been too specific and made participants unable to make an association with the question asked from the vignette condition that they were presented. Future research could look to modify the scale and make the scenarios in the question less specific. Another idea could be to use a moral scale that deals with associations, such as asking a participant to come up with a certain amount of words that come to mind when describing the character in the vignette. However, it seemed that the brands of coffee used in the vignette a good control because a majority of the participants had not recognized the two brands of coffee.

Despite certain methodological shortcomings in the research, this should not discourage the discussion of any potential policy or marketing implications from the results. In terms of
policy, the market for green products is fascinating, as there seem to be many noneconomic factors that have been positively related to the purchase or willingness to pay of those products (Hahnel et al., 2015). This is a promising sign that demand is growing towards the types of products that encourage the implementation of more honest and sustainable systems. With the current debates regarding global warming and the need for industrial societies to begin adopting environmentally friendly habits and procedures, it has become a pressing issue regarding to begin the implementation of ecologically beneficial practices sooner, rather than later. However, in relation to the green industry in the United States, such implementation is contingent on consumers demanding prosocial products due to the way current policy instruments are set up. In addition, when it comes to marketing implications, the results can be useful in indicating what types of individuals are more likely to purchase prosocial products and this can give companies an idea of who to direct their advertising efforts towards, and how to go about those efforts.

Policy Debate

There are two different instruments that eco labels can be regulated by; command-and-control and/or market-based policy. The former refers to policy regulated by a governmental entity, and the latter refers to a policy run by basic market principles. These two instruments are not mutually exclusive as prosocial labels can be regulated by both at the same time. In the United States, labels such as the USDA Organic label, which require farmers to complete five different steps before they can become certified (USDA, 2012). There are fees associated with USDA Organic certification for farmers, but there are economic opportunities that can also arise from passing the regulations to become certified. The case of USDA Organic label provides an anecdote of the paired instruments used to regulate labels. The certification is done by the United
States Department of Agriculture, yet the market-based instruments help incentivize farmers into shifting towards more environmental and sustainable production methods. This logic in favor of market-based policy instrument is based off traditional economics, the rationale being that consumers are choosing to buy more eco-friendly produce and the market needs producers to meet that demand. This works fine when the market is shifting in that direction but if patterns were to change then there would be less incentive to implement better, more environmentally friendly and sustainable practices. The current experiment looked to isolate the social psychological effect of routinely purchasing prosocial goods. Because the research related to green products and eco-labels has shown that there are behavioral explanations for the purchasing of those aforementioned goods, I believed quantifying perceptions as a function of prosocial consumerism would provide a noneconomic factor in favor of prosocial goods.

When it comes to regulation, there is also a behavioral rationale. The justification from a behavioral standpoint is that consumers exhibit cognitive failures that stem from various biases, which in turn prevent them from making optimal decisions (Lusk, 2014). The issue then becomes a question of whether policy makers blame faulty markets or suboptimal decision-making individuals. The most common types of policy mentioned concurrently with behavioral economics are known as paternalistic policies. Because there are many labels in the US system that rely on market-based policy instruments, there could also be a case for policy instruments to include paternalistic qualities in case of a change in preferences in the market for prosocially labeled goods. The focus then becomes whether environmental policy should focus on regulating producers or motivating the consumer to purchase more green products. Proponents of paternalistic policies often argue that individuals can benefit from having their choices constrained in order to pave the way for more optimal ones (Lusk, 2014). Traditional economics
made a clear distinction that preferences were clearly defined by the final decision individuals made. With the rise of behavioral economics, as well as marketing, it is clear that arbitrary factors can have a large impact on the final choice made by economic agents. For example, Wansink (2006) found that, even when two bottles of wine were the exact same, patrons at a restaurant were more likely to eat more and stay longer when the type of wine being consumed was said to be from California rather than North Dakota. The other argument that proponents of paternalistic policies use is the concept of time inconsistencies, an idea where we have trouble properly gauging current benefits against the future costs (Lusk, 2014). Time inconsistencies describe the irrational agent who delays a decision with the misplaced belief that the agent’s future self will make a more rational decision (Lusk, 2014). All the aforementioned examples present noneconomic factors that affect economic behavior and my research found that individuals associated prosocial consumerism with eco-friendly perceptions. This supports the notion that there is a representative bias connected with prosocial goods. The results suggests that college students are linking together green lifestyles with green products and that maybe future policy could look to providing subsidies to other green products to entice more consumers.

The process of paternalistic policy would first consider whether it would be in people’s best interest to behave or consume a certain way. With regards to eco-labels, the argument could be that prosocial goods incentivize firms to create sustainable production systems and can help provide social benefits to farmers and therefore should be chosen over conventional products. The next step would be to design a policy to implement in order to achieve the aforementioned goal. In fact, the United Kingdom has created a Behavioral Insight’s Team to help in the process of making food and health policy recommendations (Lusk, 2014). The issue then becomes about using evidence from research to strengthen the case for paternalism. This can become
problematic because, while the findings from behavioral research can be interesting and reach the mainstream quickly, most experiments create an artificial setting to elicit these economically irrational behaviors and it can be tough to generalize significant results because of methodological concerns. Behavioral experiments carried out in the lab fail to provide a proper context, fail to take experience and learning into account and most research uses samples of 18-21 year old college students. This, unfortunately, is the case with my experiment as I examine the perceptions towards randomly assigned fictional characters.

Examples of the issues with using behavior research to drive paternalistic decisions are plentiful. In terms of context, one experiment found that construction managers fell victim to overbidding on items that had a common value to everyone, despite the fact that they bid on building contracts for a living (Dyer and Kagel, 1996). However, when those construction managers were followed by researchers into their actual work environment, it was found that they were able to take institutional details and past experiences into account and were much more likely to avoid overbidding for a contract (Dyer and Kagel, 1996). Another finding was that those with greater trading experience are less likely to overvalue an item, i.e. endowment effect, given to them versus those without any trading experience (List, 2003). These experiments show that the decisions that an individual makes in a laboratory setting does not provide a true representation of the decision they would make in a real life scenario. Although behavioral studies may find that individuals are prone to committing certain types of mistakes, it is difficult to use results from those studies to conclude that paternalism is required. Another issue with using behavioral economics to justify policy action is that it absolves individuals from their undesirable actions and further de-incentivizes to constrain future behavior. In addition, paternalism assumes perfect foresight of expected behavior under new policy. Because consumer
choice is no longer considered, due to it being heavily influenced by cognitive failures, then it would be up to the paternalist to decide what is best for a consumer. Because the research was more about trying to capture the shift in peoples’ own preferences and then finding out how the market place can anticipate and satisfy these changing preferences, then the current results do not support the use of any particular paternalistic policies on all individuals by the government. The reason being is because pro-environmental perceptions towards fair-trade coffee drinkers was found to be significant, albeit heavily influenced by the male vignette conditions, and this indicates that noneconomic demand, measured by perceptions, is shifting towards prosocially labelled goods.

Marketing Implications

BPM was first used to explain how the behavioral setting and informational reinforcement might guide the research question, and this current section will use BPM to propose potential marketing applications. In the model of BPM, the more favorable eco-friendly perceptions towards the fair-trade, organic instant coffee consumer would be categorized as an informational reinforcement. Because the model is based off of the principles of operant conditioning, the results suggest that the consumer’s situation influences his/her learning history so that there is a strong association between consuming prosocial products and eco-friendly behaviors. One of the potential explanations for this could be that the marketing environment has been successful in reinforcing these associations enough that now consumers use a representative heuristic to associate eco-friendly products with eco-friendly behaviors. Because the results of the experiment suggest that this association is present in the college student consumer demographic, the first implication that would naturally come from the results in the experiment
would be for companies to continue to target marketing strategies in the direction of that demographic.

Because the college demographic is a group that appears to exhibit this association, a producer of products with certified prosocial labels may look to position themselves in areas where college students shop more frequently. Assuming that the association is due to a strong familiarity with eco-friendly products, there might not be as strong a need to direct more marketing towards this group. However, it could be suggested that marketers should continue to market the eco-friendly products with the theme of an eco-friendly and eco-conscious lifestyle. One example could be to encourage college students to drink their favorite fair-trade coffee with a reusable mug, as that has a clear association with a sustainable behavior. Another example could be to continue to inform consumers of the sustainable practices used by the farmers who made the product by having the farmers come visit a school and explain their practices. This would provide more information to the consumer and also facilitate the consumer's formation of a stronger social connection for the prosocial product. Related to the previous idea, prosocial brands could implement a donation discount that would donate a portion of the proceedings from each product sale to a sustainable or local farm. Research has shown that consumers are more likely to prefer a donation promotion if the donation involves an organization that is aligned with the individual's social identity (Winterich and Barone, 2011). A consumer who identifies with prosocial causes would be more likely to prefer a donation promotion if a prosocial organization was involved (Winterich and Barone, 2011).

In the experiment, respondents who had a higher level of knowledge regarding fair-trade certification did not have a more significant pro-environmental perception towards a prosocial consumer than a respondent who had a lower level of knowledge. This suggests there is not a
pressing need for marketers to include detailed information of the social goals of their products on certified labels. This also gives an indication of what kind of celebrity endorsement might work best with college consumer. If differing personal habits, knowledge, and trust, lead to college students viewing consumers of prosocial products as less eco-friendly, then it would make sense to use a more popular celebrity endorsement in order to gain the interest of that market. However, because college students, regardless of personal habits, knowledge, and trust, viewed consumers of prosocial products as more eco-friendly, then it would make sense for companies to use a celebrity endorsement who is associated with those values in order to continue to strengthen the association and keep that consumer base.

Conclusion

The research set to understand whether consumers that purchased prosocial products would be perceived to be more environmentally-friendly and moral than consumers who purchased conventional products. An experimental design was used to answer this research question and found evidence to suggest that consumers of prosocial products were perceived as more environmentally friendly. This finding was used as an indication of a noneconomic factor that was in favor of prosocial goods and this finding suggested that college students might use a representative heuristic to associate green products with a green lifestyle. This suggested that there is no need for the use of paternalistic policy measures to increase the demand for green products. In addition, the marketing implications of the research was to continue to strengthen these associations through advertisements, informational sessions or celebrity endorsements. The next step of research could look to understand whether these positive perceptions can be found in the adult population in the United States.
Appendix

Vignette Description and Photo
Alex(a) wakes up at 7:00 every morning before work in order to eat breakfast and drink a cup of coffee before starting his/her commute. Although his/her choice of breakfast will typically vary, the one constant in his routine is the brand of coffee that he drinks. Alex(a) consistently chooses Jacobs Cronat Gold Coffee [or] Mount Hagen Organic Fairtrade Coffee (pictured below) as his preferred brand.

Modified Feelings of Obligation to Others Scale (FOOS)
1. An individual who would work hard even if they didn’t like or respect their employer or supervisor
2. Someone who is viewed as successful by peers
3. An individual who does not actively to seek out new experiences
4. Someone who would not volunteer time in support of a global social cause
5. Someone who would vote for a law that would help others in their local community worse off but would increase their taxes
6. Would support a government-sponsored international disaster relief even if it would mean spending less money on the nation’s own citizens
7. Close minded individual who is not open to hearing new opinions
8. An individual that people want to be around
9. Would continue buying a product if it was found out that the company was not paying a fair wage to its workers in a poor, developing country
<table>
<thead>
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<th>Modified National Geographic Greendex Calculator</th>
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<tbody>
<tr>
<td>1. Someone who prefers to purchase local products</td>
</tr>
<tr>
<td>2. An individual who habitually drinks bottled water</td>
</tr>
<tr>
<td>3. Someone who carpools to work</td>
</tr>
<tr>
<td>4. An individual who frequents farmer’s markets</td>
</tr>
<tr>
<td>5. Someone who owns an SUV</td>
</tr>
<tr>
<td>6. An individual who avoids walking as a means to get to places</td>
</tr>
<tr>
<td>7. Someone who habitually takes long showers</td>
</tr>
<tr>
<td>8. An individual who recycles</td>
</tr>
<tr>
<td>9. Someone who replaces broken items before trying to repair them first</td>
</tr>
<tr>
<td>10. An individual who tends a garden</td>
</tr>
</tbody>
</table>
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United States Department of Agriculture. FAQ: Becoming a Certified Operation.
