

# **The Limits of Moral Licensing**

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## **Abstract**

Moral licensing claims that engaging in moral behavior makes people feel “licensed” to compensate by subsequently engaging in morally questionable or even unethical behavior (Zhong, Liljenquist, and Cain 2009). Accordingly, engaging in political consumerism should lead people to feel as though they have already done their share, thereby justifying disengagement from subsequent ethical behavior. The current study assesses more thoroughly the extent to which moral licensing occurs. Rather than being a blanket effect, we hypothesize that licensing only holds under certain conditions. First, licensing effects should weaken in situations where the subsequent behavior is unambiguously unethical or difficult to rationalize. Second, licensing might not hold in situations where follow-up activities are similar to the original moral engagement. Third, the effect should weaken for individuals with strong moral convictions and high commitments to moral behavior, such as habitual political consumers. We test these hypotheses using four randomized controlled experiments and survey data. The results indicate that licensing is an inconsistent effect: either it does not hold (Experiment 1), reverses (Experiment 4), or holds only among certain types of individuals (Experiments 2 and 3). These findings have important implications for those studying moral licensing and for those who see political consumerism as a meaningful form of political participation.

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## Introduction

Moral licensing holds that engaging in moral behavior makes people feel “licensed,” or as though they have earned the right to compensate later on by engaging in morally questionable or even unethical behavior (Zhong, Liljenquist, and Cain 2009). For example, while people might give to charity in the morning, they might feel justified to decline help to someone in need in the afternoon. The same logic can be applied to political consumerism, which is defined as the act of deliberately buying or avoiding products for political or ethical considerations (Stolle and Micheletti 2013). According to moral licensing, engaging in political consumerism should lead people to feel as though they have already done their share, thereby justifying disengagement from subsequent moral or ethical behavior.<sup>1</sup> Evidence from a recent experiment by Mazar and Zhong (2010) appears to support this account. Those who shopped in an online store containing mostly green products shared less money and were more likely to cheat and steal in a subsequent experimental game than those who shopped in a conventional online store.

These findings, and the phenomenon of moral licensing in general, seem puzzling. For one, they are contradictory to the idea of political consumerism as a form of individualized responsibility taking. While research on political consumerism contends that some people use everyday behavior to push for broader social and societal change, Mazar and Zhong (2010) found the opposite: those who purchased political and ethical products were actually less likely to engage in subsequent ethical behavior.

Furthermore, a large body of psychological research also stands in contrast to the phenomenon of moral licensing, as it claims that individuals are driven towards self-consistency (Blasi 1984; Festinger 1957). The argument is that moral behavior should lead people to act consistently by activating moral values and making them “accessible guides” for subsequent behavior (Brown et al. 2011). This raises the question: when should we expect individuals to act consistently, and when should we expect them to act inconsistently?

The current study assesses the extent to which moral licensing occurs. Rather than being a blanket effect, we argue that moral licensing holds only under certain conditions. First, moral licensing might not hold in situations where subsequent behavior is similar to the original moral engagement. For example, if people have shown strong moral commitment in the area of environmental protection, they are also much more likely to be consistent and behave similarly in new situations. Second, moral licensing should also weaken when the subsequent behavior is unambiguously unethical or difficult to rationalize. Given the drive towards self-consistency, individuals will only engage in unethical behavior when it is easier to justify. Third, the effect should weaken for individuals with strong moral convictions and high commitments to ethical behavior. The case of political consumers might be a good testing ground, as there is a debate about the extent to which political consumers are acting based on moral concerns and whether they do it regularly

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<sup>1</sup> In this paper, we will use the terms “moral” and “ethical” interchangeably to describe similar types of activities and behavior.

(Stolle and Micheletti 2013; van Deth 2010). If political consumers place a high importance on ethical values in their everyday lives, these individuals should display more consistency in their behavior.

We test these hypotheses using four randomized controlled experiments and survey data. Our results indicate that licensing is an inconsistent effect: either it does not hold (Experiment 1), reverses (Experiment 4), or only holds for certain types of individuals (Experiments 2 and 3). These findings have important implications for those interested in moral licensing and political consumerism as a meaningful form of political participation.

## 1. Literature Review

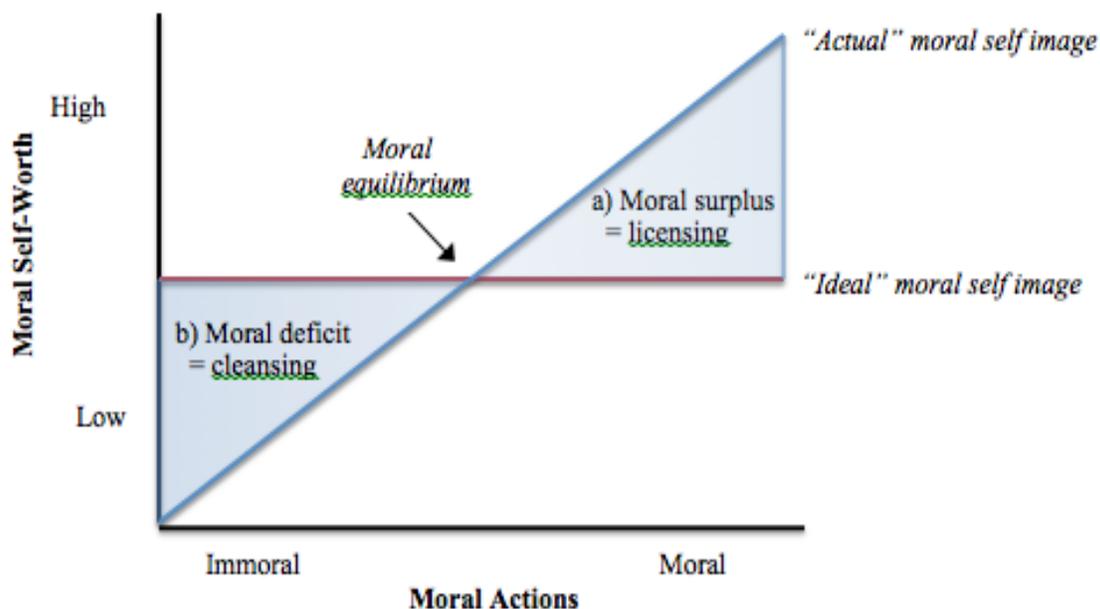
### Moral Licensing

Moral licensing is a theory of compensatory behavior. Doing good makes people feel as though they have earned the right to compensate later on, either by disengaging from good behavior or doing things that are blatantly wrong (Merritt, Effron and Monin 2010). Underlying this concept is the premise that people have a strong desire to be moral, however doing so does not come without a cost (Jordan et al. 2011; Monin and Jordan 2009). Thus, they often face a “balancing act between wanting to do good, but not wanting to pay the costs associated with doing good” (Sachdeva, Illiev, and Medin 2009, 523). As a result, people might try to avoid paying the cost at the next opportunity, or they might feel that they have to reward themselves for having done something good to others in that they do something sinful, immoral or less helpful. If there is this trade-off between being moral, paying the costs and rewarding yourself, what determines whether people will pay up?

The answer, according to moral licensing, is that people’s perceived moral standing is influenced by their past behavior. According to Higgins (1996), individuals have an ideal moral self-image that they use as a benchmark against which they judge their current moral standing. If someone has done something good, their actual self-image has exceeded this ideal, making them feel entitled to relax their moral strivings and disengage from further good behavior (see Figure 1). The reverse can also occur. Behaving unethically may lead their actual self-image to deviate below the ideal, making them feel compelled to compensate through good behavior. While not the focus of the current study, this reverse effect is called *moral cleansing* (Zhong, Liljenquist, and Cain 2009).

Thus, people have a strong desire for balance between their actual and ideal moral self-images. If this balance is disrupted, it can lead to compensatory behavior: immoral acts when the actual self has exceeded the ideal (moral licensing) or moral actions when the actual self has plummeted below the ideal (moral cleansing). This process is called *moral self-regulation* (Zhong, Liljenquist, and Cain 2009).

**Figure 1: Process of Moral Self-Regulation**



Source: authors

- a) Moral licensing: When people engage in moral actions, their actual moral self image exceeds their ideal. This creates a moral surplus, which licenses them to engage in immoral behavior to re-establish a moral equilibrium.
- b) Moral cleansing: When people engage in immoral actions, their actual moral self image falls below their ideal, creating a moral deficit. To restore moral equilibrium, they engage in moral behavior.

Moral licensing has been empirically demonstrated across a variety of domains. Monin and Miller (2001) first looked at licensing in the area of political correctness. They found that men who were given the chance to disagree with blatantly sexist statements were subsequently more likely to prefer a man for a stereotypically male job than those who did not. Similarly, in a follow-up study, they found that those who were given the opportunity to hire an African American candidate in a recruitment task were more likely to say that a job on a historically racist police force was better suited for Whites. The idea is that once people have already proven themselves as nonprejudiced, they become more comfortable about their moral standing, allowing them to express politically incorrect attitudes without worrying about appearing prejudiced.

Several other studies demonstrate that those whose moral self-worth is boosted in some way are more likely to relax their prosocial behavior in a subsequent task. Kahn and Dhar (2006) found that those who simply imagined volunteering to help a foreign student reported that they would donate significantly less of their \$2 compensation to charity than those who did not. Similarly, Jordan, Mullen, and Murnighan (2011) found that those who wrote about their past moral behavior reported weaker intentions to engage in a variety of prosocial activities (i.e. donating to charity, giving blood, volunteering) than those who recalled past

immoral or neutral behavior. Sachdeva, Illiev, and Medin (2009) found that participants who wrote a story about themselves using morally positive words (i.e. generous, kind) reported that they would donate significantly less to a charity than those using negative or neutral words. When participants were assigned to write positive, neutral or negative words about someone they knew rather than themselves, the phenomenon of moral licensing disappeared, suggesting that the process involves the self (Sachdeva, Illiev, and Medin 2009, see also Conway and Peetz 2012).<sup>2</sup>

A weakness of many of these studies is that they rely on self-reports, thus only measuring intentions and not actual behavior. One study by Jordan, Mullen, and Murnighan (2011) addresses this by measuring actual behavior using a math test that gave participants an opportunity to cheat.<sup>3</sup> They found that those who recalled past moral behavior cheated more often on the test than those who recalled past neutral or immoral behavior. Using the same math test, Brown et al. (2011) also found that those who imagined behaving prosocially were more likely to cheat than those in the control group.<sup>4</sup>

While there is empirical evidence of moral licensing, existing studies 1) have mostly used intentions and not actual behavior to capture moral licensing, 2) lack a variety of subsequent behavioral tasks, and 3) have not sufficiently tested whether all groups of the population are equally affected by moral licensing. In the following section we explore how moral licensing is related to political consumerism.

### **Moral Licensing and Political Consumerism**

When individuals select products by considering political and ethical motivations, they are engaging in political consumerism (Michelletti 2003, Stolle and Micheletti 2013). Political consumers are those “concerned with the effects that a purchasing choice has, not only on themselves [for example in terms of price and

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<sup>2</sup> However, one study found different results regarding the self. Kouchaki (2011) found that license to act in a discriminatory manner was also evoked when moral credentials were given to the participants’ in-group and not just established about the self; this is called “vicarious moral licensing.”

<sup>3</sup> Participants were given a set of math questions on the computer. They were told that there was a glitch in the system and that every time they did not press the spacebar, the correct answer would appear. Therefore, the dependent measure was the total number of times the participant failed to press the spacebar.

<sup>4</sup> Although perhaps not involving the same causal mechanisms, this phenomenon can also be found in approaches to healthy lifestyles. Chiou, Yang and Wan (2011) found that participants taking what they thought were vitamin pills (in reality, all groups were taking a placebo) reported less desire to exercise, and greater desire for indulgent activities, such as partying and sunbathing as well as perceived themselves to be less vulnerable than those *not* taking vitamin supplements, consistent with the moral licensing literature. Following these results, a different group of participants, also taking or not taking vitamin pills, were asked to test and return a pedometer and given a choice between two different locations, one near and one further away. They found that participants in the vitamin pill condition engaged in *less additional walking* than those in the control group. The authors propose that perceived invulnerability mediates the effects between taking vitamin pills and consequent actions (Chiou, Yang and Wan, 2011; 1084). Similarly, Effron, Monin and Miller (2012) had similar results when they asked participants who wanted to lose weight to list unhealthy behaviors they *could have indulged in* in the past week (but avoided). These participants listed *fewer intended* healthy behaviors in the coming week.

quality], but also on the external world around them” (Harrison, Newholm, and Shaw 2005). They believe that the products they buy are inherently connected to broader global issues such as potential environmental damage and global warming, as well as to the working conditions of those who produced them (Littler 2009). Thus political consumers use their everyday shopping decisions to solving social, political, or environmental issues that are important to them.<sup>5</sup>

Many scholars have questioned whether political consumerism is a meaningful form of political participation, arguing that individualized purchasing decisions cannot bring about broader social, political, and environmental change (Baek 2010; Eikenberry 2009). This debate has been brought to the forefront by recent research on moral licensing. According to the licensing account, purchasing political or ethical products should lead people to feel as though they have already done their share, justifying disengagement from subsequent political or ethical behavior.

Several studies have looked at whether moral licensing holds in contexts involving purchasing ethical products. Eskine (2012), for example, demonstrated that those who merely viewed pictures of organic foods volunteered less time for a research project than those who looked at regular foods. Schuldts and Schwarz (2010) demonstrated that when rating organic desserts, participants were more likely to condone indulgence and skipping exercise than when they were rating regular desserts. The authors explain that people view purchasing and consuming organic products as an ethical act, which licenses them to relax about engaging in subsequent ethical behavior.

Mazar and Zhong (2010) demonstrated moral licensing among those who actually purchased ethical products. In a first study, they found that those who were merely exposed to ethical products (organic foods and recyclable or energy-efficient household items) behaved more ethically than those exposed to regular products. In a second study, they assigned participants to purchase items in one of two stores: one with mostly ethical products and one with mostly conventional products. They found that those who were assigned in the store with mostly ethical items shared less money in an anonymous dictator game, were more likely to cheat during a task on the computer in order to make more money, and took more compensation than they had earned compared to those who shopped in a regular store.<sup>6</sup> They explain that shopping in the ethical store licenses participants to disengage from subsequent ethical behavior more generally. The authors conclude that “the halo

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<sup>5</sup> There are different forms of political consumerism. Boycotting involves a refusal to buy certain products as a way of punishing producers for unfavorable market practices. Buycotting, which is the focus of the current study, involves the purchase of goods in accordance to particular guidelines, such as sustainable products or those that fairly compensate the workers who produced them. Both forms of political consumerism have been on the rise in recent years (Stolle, Hooghe, and Micheletti 2005; Turcotte 2010). This increase is occurring alongside a more general decline in traditional forms of political participation in Western democracies (Baek 2010; Putnam 1995; 2002).

<sup>6</sup> In the computer game, a diagonal line was displayed on the screen and dots would appear on either side. Participants had to identify the side of the line that had more dots in 90 trials. They got paid a small amount each time, however when they identified the more dots on the right they would get paid more (5 cents) than if they identified the left (0.5 cents). Since there were more dots on the right side than the left in 40 percent of all trials, then a completely honest participant would identify “right” 40 percent of the time. Afterwards, a summary screen displayed what they had earned

associated with green consumerism has to be taken with reservations.”

Of course, there is not much research knowledge on when moral licensing does *not* occur, as there is probably an over-reporting of positive moral licensing effects in the literature (Pigott et al 2013, Fanelli 2010). Whatever the extent of the phenomenon, the research on moral licensing is particularly challenging to political consumerism for several reasons. Political consumerism is thought to reflect an individuals’ “concern and feeling of responsibility for society” (Mazar and Zhong 2010, 494). Moral licensing, however, runs opposite to this view. While political consumerism is assumed to be motivated by social responsibility, necessitating the practice of “judgment, autonomy, and solidarity” (Micheletti 2003, 17), licensing holds that engaging in political consumerism actually reduces social responsibility. Another issue is that if moral licensing is really in effect, then the subsequent unethical behavior could cancel out the original virtuous act of political consumerism, possibly rendering its overall effects obsolete. Given these challenges, it is important to assess the extent to which moral licensing occurs when individuals engage in political consumerism.

This question is embedded in a larger psychological literature which indicates that people are driven towards consistency, and that acting inconsistently is uncomfortable for individuals and can even lead to psychological distress (Festinger 1957; Freedman & Fraser 1966, see more recent evidence in Elliot and Devine 1994, Newby-Clark, McGregor and Zanna 2002).

Thus it appears that the literature on moral licensing challenge the ideas of moral behavior that is consistent, such as political consumerism. How can we reconcile these different views? The current study argues that licensing only holds under certain conditions. We suggest three moderating variables: 1) the similarity of the subsequent ethical behavior compared to the original moral act; b) the moral ambiguity of the licensed behavior and c) pre-existing levels of moral convictions and behavior.

*a) Similarity of subsequent behavior:*

The relevance of the subsequent behavior in relation to the original moral act matters. Follow-up behavior that is irrelevant to the original act may be viewed with new costs associated than one which is inextricably linked to the original act. The linkage reminds people of their commitment despite any associated costs and thus allows for more consistent behavior. Kahn and Dhar (2010) also contend that in these cases where “the subsequent choice is directly linked to the prior intent” we should see more consistency (265). They give the following example:

A moderately religious person who sometimes goes to religious services and sometimes eats pork might be less (not more) likely to eat pork on the day he or she visits the synagogue than on a day he or she does not. Instead of reducing the guilt from consuming pork, the act of eating pork after a visit to the synagogue might make the initial act seem less virtuous (ibid).

In cases such as these, moral behavior should increase the saliency of moral values, making individuals more likely to act in accordance with them in their subsequent behavior.

The idea that engaging in moral behavior might lead to fewer transgressions when the follow-up behavior falls into the same domain was not addressed in the Mazar and Zhong (2010) study. Instead they examined licensing across two *unrelated* domains: they showed that buying green reduces ethical behavior in general (e.g. such as cheating) rather than testing an effect on relevant ethical behavior concerning the environment or green consumerism. Perhaps if they had used a follow-up measure that was more directly related to the initial act of political consumerism, then individuals would display more consistency rather than compensatory behavior.

*b) Moral Ambiguity of the licensed behavior*

Second, we believe that the level of moral ambiguity of the subsequent behavior moderates the licensing effect. When the follow-up behavior leaves little ambiguity that certain choices are unethical - then licensing will be less likely to occur overall. Since individuals have a drive for self-consistency, they will not engage in contradictory behavior unless it is easy to rationalize (Brown et al. 2011). Morally ambiguous behavior, such as choosing not to donate to charity or abstaining from community service, does not necessarily indicate that someone is an immoral person. For example, there could be a number of reasons for the decision: lack of time, inadequate information, etc. could all be used to rationalize not to engage in these behaviors. Behavior that is more blatantly wrong, such as cheating, is harder to rationalize, and thus people may be less inclined to engage in it whether or not they feel as though they are morally licensed to do so.

Again, the hypothesis that engaging in moral behavior only leads to transgressions that are morally ambiguous was not addressed in the Mazar and Zhong (2010) study. Similarly, few other moral licensing studies have addressed this hypothesis with the exception of Brown et al. (2011). As a dependent measure, Brown et al. (2011) used two versions of a math test that gave participants an opportunity to cheat: one where cheating was more rationalizable and the other where it was not.<sup>7</sup> They found that in the more rationalizable condition, licensing continued to hold whereas it weakened in the low rationalizable condition. Also, those who recalled past moral behavior actually cheated less than the control group, however this was not significant. In short, studies on moral licensing may want to take the level of rationalization of the licensing behavior into account.

*c) Pre-existing levels of moral convictions*

We also assume that moral licensing does not affect all people equally. People with strong moral convictions and habitual moral behavior will be more inclined to behave consistently than those with weaker moral convictions. Moral licensing should be weaker among these individuals because they will be less likely to abandon their values simply as the result of doing something good. Since morality is

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<sup>7</sup> In the highly rationalizable math test, the answer would appear if participants did not press the spacebar immediately (after 1 second), thus they could blame their cheating on their inability to press the spacebar in the allotted time. In the less rationalizable test, the answer appeared if they did not press the bar after 10 seconds, making cheating more difficult to blame on the test.

not a costly endeavor but rather something that they place “at the very core of their self-concept,” engaging in moral behavior causes less deviation from their moral ideal (Zhong, Liljenquist, and Cain 2009, 84). When those with weaker moral convictions engage in moral behavior, in contrast, this greatly offsets their moral balance making compensatory behavior more likely to occur.

The hypothesis that moral licensing will be weaker among those with stronger moral convictions has been generally overlooked in the licensing literature. An exception is a study by Effron, Cameron, and Monin (2009). In an initial study, the authors found evidence of moral licensing: those who were given the chance to express support for Obama apportioned more money to a White organization than a Black one than those who were not.<sup>8</sup> They then demonstrated that this effect was moderated by participants’ pre-existing racist attitudes. That is, among those who were highly racist,<sup>9</sup> licensing continued to hold whereas the effect actually reversed among those with low racist values: those who supported Obama allocated significantly *more* funds to the Black organization than those who did not.

Most moral licensing studies, however, usually do not control for participants’ pre-existing levels of moral commitment to the cause at hand. Similarly, in the Mazar and Zhong (2010) study, it is unclear whether those with strong moral convictions display more consistency in their behavior.

## 2. Hypotheses

Using four randomized controlled experiments, the current study explores whether moral licensing occurs and under what conditions. In Experiments 1-3, we examine whether those assigned to shop in an ethical product store are more likely to disengage from various forms of ethical behavior than those shopping in a conventional store. The idea is to understand whether moral licensing holds even when the follow-up behavior is closely related to the original moral activity. Thus the subsequent ethical behavior included activities closely related to shopping in an ethical store, such as volunteering for a follow-up study on bottled water use and other sustainability practices in Experiment 1, donating to an existing environmental initiative that funds grass-roots projects around campus in Experiment 2, and choosing recyclable products in Experiment 3.

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<sup>8</sup> In the budget allocation task, participants decided how to divide money between two local organizations: one representing a mostly Black neighborhood and one representing a mostly White one. The scenario read: “Imagine that your local government has a budget surplus, \$100,000 of which is to be used to fund private organizations that combat poverty. Members of your community are asked to vote on how much of the funds to allocate to each of two neighborhood organizations. These two neighborhood organizations serve areas with comparably high crime, unemployment, and poverty rates. The Bryant Street Organization serves a primarily White neighborhood, while The Maple Street Association serves a primarily African-American neighborhood. The Maple Street Association recently received a large [or “\$200,000”] cash gift from a private donor. Given that information about these two groups, how would YOU vote to allocate the government’s surplus funds (\$100,000)?”

<sup>9</sup> Racism was measured using the Modern Racism Scale (MRS; McConahay, Hardee and Batts 1981).

**H1: According to moral licensing, we expect that those shopping in the ethical store will volunteer significantly less (Experiment 1), will donate significantly less to charity (Experiment 2) and will be significantly less likely to choose recyclable paper (Experiment 3) than those shopping in the conventional store.**

Experiment 4 was designed to test whether moral licensing holds when using a less ambiguous scenario of ethical behavior. Experiment 4 uses a hypothetical environmental game to test whether those in the ethical store were less likely to defect from a fictional environmental agreement in order to earn more compensation than those shopping in the conventional store.<sup>10</sup> Breaking an environmental agreement to earn extra money is much less ambiguous and less rationalizable compared to our other measures (not giving money to charity, choosing the regular paper over the recyclable, and not volunteering). Thus, we expect more consistency in behavior in this scenario which offers more clearly immoral choices. Thus we expect those in the ethical store to act more consistently: they should be less likely to defect from the environmental agreement in order to earn more money than those in the conventional store.

**H2: For follow-up behavior that involves less ambiguous choices (Experiment 4), we expect that moral licensing does not hold and indeed will be reversed.**

In the next step of the analysis we test whether licensing holds for habitual political consumers (“political consumers”). First, however, it is necessary to determine whether political consumers in fact behave more ethically than non-political consumers: volunteering in Experiment 1, donating to charity in Experiment 2, choosing the recyclable paper in Experiment 3, and cooperating in the environmental game in Experiment 4. Hypothesis 3 predicts:

**H3: Political consumers will be significantly more likely to volunteer (Experiment 1), will donate significantly more to charity (Experiment 2), will be significantly more likely to choose the recyclable paper (Experiment 3), and will behave significantly more cooperatively in the environmental game (Experiment 4) than non-political consumers.**

Next, we examine whether licensing continues to hold among habitual political consumers. We hypothesize that political consumers should display more consistency in their behavior than those who do not usually purchase political or ethical products (“non-political consumers”). Hypothesis 4 predicts that existing levels of political consumerism moderate the moral licensing effect:

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<sup>10</sup> Participants were given a fictional scenario where they imagined they were in charge of a manufacturing plant and could take additional money from an envelope for each interval that they defected from the agreement.

**H4: Moral licensing is dependent on the strength in habitual moral behavior, such that we expect it to hold among non-political consumers, whereas it weakens or disappears among political consumers.**

For political consumers, purchasing political and ethical products is a regular or routine act, something that they expect of themselves. Because moral values are salient to political consumers, acting morally is unlikely to cause them to feel as though they pay any costs, and so deserve to compensate through unethical behavior. Thus they should display more consistency in their behavior than non-political consumers.

### 3. Methodology and Research Design

#### Participants

Participants were recruited from one of two separate media studies that were conducted in our laboratory. Both studies took approximately 45 minutes and compensated participants \$20 for their time.<sup>11</sup> Participants for our four experiments were recruited from the media studies. After completing the media study, participants were asked if they would like to take part in an additional experiment on online shopping, which would involve making fictional purchases in an online store. All four experiments took approximately 5 minutes and participants were paid \$2 for their time. Participant details are listed in Table 1.

**Table 1: Participants<sup>12</sup>**

Exp #	Total N	Gender		Store		Start Dates
		Male	Female	Ethical	Conventional	
1	78	46	32	38	40	07/12
2	49	25	24	24	25	06/11
3	34	14	20	16	18	03/11
4	103	49	54	50	53	05/12

<sup>11</sup> For Experiments 1, 3, and 4, participants were recruited from a media study that involved completing two questionnaires and watching a video of a Liberal candidate giving a speech on the environment. While watching the video, participants were hooked up to non-invasive transducers to monitor their vital signs. Due to the requirements of this study, all participants were Canadian citizens, eligible to vote in the most recent election, and had Liberal partisan affiliations. Participants for Experiment 2 were recruited from a different media study that included a questionnaire and reading several newspaper articles on the computer. The sessions were conducted at private workstations either individually (Experiments 1, 3, and 4), or in groups of one to six participants (Experiment 2).

<sup>12</sup> Our four experiments were conducted at different points in time, with different participants. Experiment 2 was completed as part of an Honours Essay, and the three other experiments were added on subsequently in order to test the results in different contexts, which explains why we conducted these experiments at different periods of time and with different participants.

## Procedure & Measurement

*Store:* Participants were randomly assigned to shop in an ethical or a conventional online store.<sup>13</sup> The stores were modeled after those used by Mazar and Zhong (2010) and contained items typically found at the grocery store. They were identical in terms of layout and type of products, such that the only difference between them was the ethical nature of products in the ethical store. These products were environmentally friendly, such as recyclable household products or organic foods, or were linked to an ethical or political cause, such as Fair Trade coffee or *Ethos* bottled water, which donates a portion of proceeds to increase worldwide access to water.

Both stores contained a total of 12 products (see Figure 1). The ethical store included 10 ethical and 2 conventional products and the conventional store contained 10 conventional products and 2 ethical.<sup>14</sup> Since ethical products are usually more expensive than regular ones, consumers must face a tradeoff between price and ethicality. The mix of products in both stores was important because it ensured that those in the ethical store shopped ethically, but it also meant that individuals still had to make some decisions about whether to purchase an ethical product at a higher cost versus a similar conventional product at a lower cost. Including a mix of products also made the stores seem more realistic.

Similar to the procedure used in Mazar and Zhong (2010), participants were given a fictional budget of \$25 that they could use to purchase anything they wanted, except only one of each item.<sup>15</sup> They were not required to spend the entire \$25, but they were told that 1 in 30 participants were randomly selected to win a prize basket of the items that they bought in the store. Giving participants a chance of actually receiving their products was meant to provide them with an incentive to make accurate shopping choices that reflected their real preferences. Since establishing a moral license requires activating one's moral self-concept, it was important that participants felt as though they were buying what they would actually want rather than choosing items at random.

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<sup>13</sup> To randomly assign participants to stores, we created a list of alternative 1's and 0's to represent the ethical and conventional stores respectively (Experiments 1-3). For Experiment 4, this list was randomized using an online randomization program. Participants were then assigned to the list as they signed up for the study.

<sup>14</sup> The two non-ethical or non-conventional products in both stores were the same type. For example, each store contained two deodorants and two waters (one ethical, one conventional), with the ethical product slightly more expensive than the regular one.

<sup>15</sup> This was necessary to ensure that those in the ethical store would choose mostly ethical products since there was a mix of items in each store.

Figure 1: Store Screenshots

## a) Conventional store

PRODUCTS		
 <b>CADBURY DAIRY</b> A perfect milk chocolate treat that <b>\$2.00</b>	 <b>ALL-PURPOSE</b> Fantastik Heavy Duty Cleaner wipes out <b>\$4.00</b>	 <b>STARBUCKS HOUSE</b> Well-balanced and lively medium roast <b>\$15.00</b>
 <b>TOM'S DEODORANT</b> Paraben and aluminum-free, 100% <b>\$5.00</b>	 <b>BAN DEODORANT</b> 24 hour odour and wetness protection, <b>\$4.00</b>	 <b>DURAMAX LIGHT</b> Incandescent bulb provides glare-free soft <b>\$4.00</b>
 <b>MACARONI &amp;</b> The traditional Kraft Macaroni & Cheese <b>\$2.00</b>	 <b>PANTENE PRO-V</b> Classic care shampoo cleanses to remove <b>\$5.00</b>	 <b>MINISTRONE SOUP</b> Habitat soup made from traditional <b>\$2.00</b>
 <b>DOUBLE-ROLL</b> Cottonelle double-roll toilet paper with <b>\$5.00</b>	 <b>ETHOS BOTTLED</b> 5 to 10 cents of each sale go to the Ethos <b>\$2.50</b>	 <b>DASANI WATER</b> Purified water enhanced with <b>\$2.00</b>

## b) Ethical store

PRODUCTS		
 <b>CAMINO MILK</b> Fair Trade Certified and organic smooth <b>\$2.00</b>	 <b>ALL-PURPOSE</b> Green Works Cleaner is certified by the NPA <b>\$4.00</b>	 <b>KICKING HORSE</b> Organic and Fair Trade Certified™ medium <b>\$15.00</b>
 <b>TOM'S DEODORANT</b> Paraben and aluminum-free, 100% <b>\$5.00</b>	 <b>BAN DEODORANT</b> 24 hour odour and wetness protection <b>\$4.00</b>	 <b>NOVA LIGHT BULB</b> Energy-Saving by using 60% less energy <b>\$4.00</b>
 <b>ANNIE'S</b> Totally natural homegrown macaroni <b>\$2.00</b>	 <b>ECOTRAIL</b> Certified by ECOCERT Greenlife with natural <b>\$5.00</b>	 <b>ORGANIC</b> Amy's certified organic homemade minestrone <b>\$2.00</b>
 <b>PC GREEN TOILET</b> Made from 100% post-consumer <b>\$5.00</b>	 <b>ETHOS BOTTLED</b> 5 to 10 cents of each sale go to the Ethos <b>\$2.50</b>	 <b>DASANI WATER</b> Purified water enhanced with <b>\$2.00</b>

*Dependent measures:* Once they completed their purchases, participants were told that the experiment was over. They were then given a filler task that consisted of several feedback questions about the store (see Appendix for question wording). We then administered the dependent measures to test their subsequent ethical behavior, which varied for each experiment.

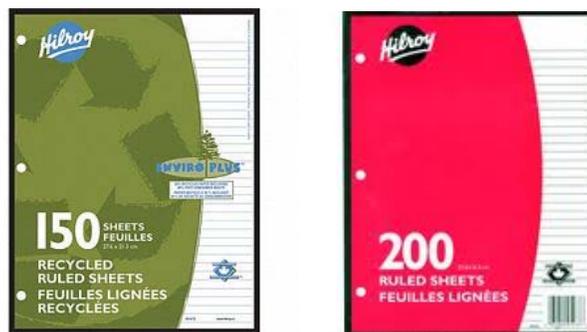
**Experiment 1 (Volunteering):** After the filler task, participants were shown a webpage with some information about a project being conducted with Seeds of Change, a McGill environmental organization (see logo in Appendix). They were informed that the organization was looking for volunteers to participate in an additional study on bottled water use and other sustainability practices. The study would take place during the current session and would consist of 30 written questions that would take approximately 1 to 1½ minutes each. Participants could choose to answer as many questions as they wanted, but would not be compensated for their participation. We asked participants whether they would like to participate in the study, and if so, how many questions they would like to generate. Our dependent variable was the number of questions that participants volunteered to answer (but not actually answered).

**Experiment 2 (Charity):** After completing the filler task, we brought participants an envelope containing their \$2 compensation, distributed in quarters, and a charity collection tin for McGill Seeds of Change, an environmental initiative

that funds grass-roots projects around campus. They were given an opportunity to browse the charity's website and were told that they could make a donation if they wished. To ensure that the donation remained as anonymous as possible, we placed soft material inside the collection tin to reduce the noise of dropping change into the metal tin. Our dependent variable was the amount that participants donated out of their \$2 compensation.

**Experiment 3 (Paper Choice):** After shopping in the store, participants were told that they would need some paper to answer the feedback questions in the filler task. We provided two pads of paper on the main desk in the experiment room, both identical except that one was labeled recyclable and the other was not (see Figure 2). The regular pad of paper also contained more sheets than the recyclable, which incorporates an element of consumer tradeoff between choosing items based on sustainability or value per unit cost. When participants went to take the paper, the researcher pretended to be saving something on the computer so that the participant could make their decision without being observed. Our dependent measure was whether or not participants took the recyclable paper. Participants handed in their papers when they were finished so that the researcher was able to see which paper was chosen.

**Figure 2: Recyclable and Regular Paper**



**Experiment 4 (Environmental Game):** After the filler task, participants performed a hypothetical cooperative game, which was disguised as an independent experiment. In the game, participants were given the following fictional scenario, based on a similar measure by Sachdeva, Illiev, and Medin (2009):

Imagine that you are in charge of a manufacturing plant that releases pollutants into the air via smokestacks. The release of pollutants can be averted by running filters at a monetary cost. Under pressure from some environmental groups, all the managers of such plants had agreed to run their filters 60% of the time, at a cost of \$1.2 million.

Participants were then told that for each 10% that they lowered the filters from the agreement, they could keep an extra \$0.25 for themselves. They would receive no extra money if they kept the filters at 60% or above. A summary screen displayed how much money they had earned and instructed them to take this amount, along

with their \$2 compensation, from an envelope on their desk.<sup>16</sup> Finally, participants answered several follow-up questions to assess how they framed the decision. Our dependent variable was the mean percentage of time that participants ran the filters. Those who ran the filters closer to or above the 60% agreement were considered to have behaved more cooperatively in the game.

*Political consumerism:* We assessed participants' pre-existing levels of political consumerism using four survey items that measured how often they engaged in various forms of boycotting and buycotting (see Appendix for question wording). Participants' responses were summed to construct a political consumerism index. In all experiments, a scaling analysis indicated that the items scaled together (see Table 2, average Cronbach's alpha was .075 across all experiments). The index was dichotomized at the mean to divide the sample among non-political consumers (scoring below the mean) and political consumers (scoring at or above the mean).<sup>17</sup> In Experiments 1, 3, and 4, the survey items were administered in a questionnaire in the previous media study. In Experiment 2, they were administered in a questionnaire at the beginning of the experiment.

**Table 2: Political Consumerism**

	<b>Mean of PC Index</b>	<b>Alpha</b>	<b>PC</b>	<b>Non-PC</b>
1	3.40	0.6591	45	33
2	3.40	0.8180	29	20
3	3.38	0.6841	31	23
4	3.27	0.8319	47	56

#### 4. Results

In all four experiments, a comparison between the two stores revealed that they were identical in terms of age, gender, educational status and year of study, whether they were born in Canada, total amount spent, total number of products bought, and their assigned condition in the media study.<sup>18</sup> Participants in all three experiments spent close to their entire \$25 budgets and those in the ethical store spent significantly more on ethical products than those in the conventional store, which confirms the manipulation check (see Appendix for results).

<sup>16</sup> The maximum participants could earn on top of their \$2 compensation was \$1.50. We placed an extra \$0.50 in the envelope to see if participants would steal extra money on top of what they had earned. Since only very few participants took more than they had earned (10.7%), with no significant differences between the two stores, we have chosen to not report these results.

<sup>17</sup> When dividing the sample at the median, with political consumers scoring at or above the median and non-political consumers scoring below, the results continued to hold in Experiments 1, 2, and 4. In Experiment 3, dividing at the median resulted in  $n = 22$  political consumers and  $n = 12$  non-political consumers. While political consumers continued to be more likely to choose the recyclable paper (36.36%) than non-political consumers (16.67%), this was not significant ( $p = 0.241$ ).

<sup>18</sup> Results available from the authors.

## Hypotheses 1 and 2

To test hypothesis 1, we used a one-way ANOVA to compare the mean number of questions that participants volunteered for (Experiment 1), the mean donation amount (Experiment 2), the mean for recyclable paper choice (Experiment 3), and for hypothesis 2 the mean percentage that participants ran the filters (Experiment 4) across the two stores.

In Experiment 1, H1 was not supported: there were no significant differences between the two stores in terms of the number of questions that participants volunteered for. This could likely be a result of the high costs respondents associated with staying an extra 30 minutes for another voluntary experiment, which overshadowed prior moral experiences of shopping ethical products.

For Experiments 2 and 3, the moral licensing hypothesis was supported. In Experiment 2, those in the ethical store donated significantly less money (from the \$2 additional payment). In Experiment 3, those in the ethical store were significantly less likely to choose the recyclable paper than those in the conventional store. In both cases, the findings were significant at the  $p \leq 0.10$  level.

In Experiment 4, licensing reversed: those in the ethical store actually ran the filters at a significantly higher percentage (closer to the 60% agreement) than those in the conventional store. While both groups defected from the agreement in order to earn more money (i.e. ran the filters below 60%), those in the ethical store lowered the filters significantly less than those in the conventional store (57% versus 43% respectively for average filter use).

**Figure 3: Hypotheses 1 and 2 Testing**





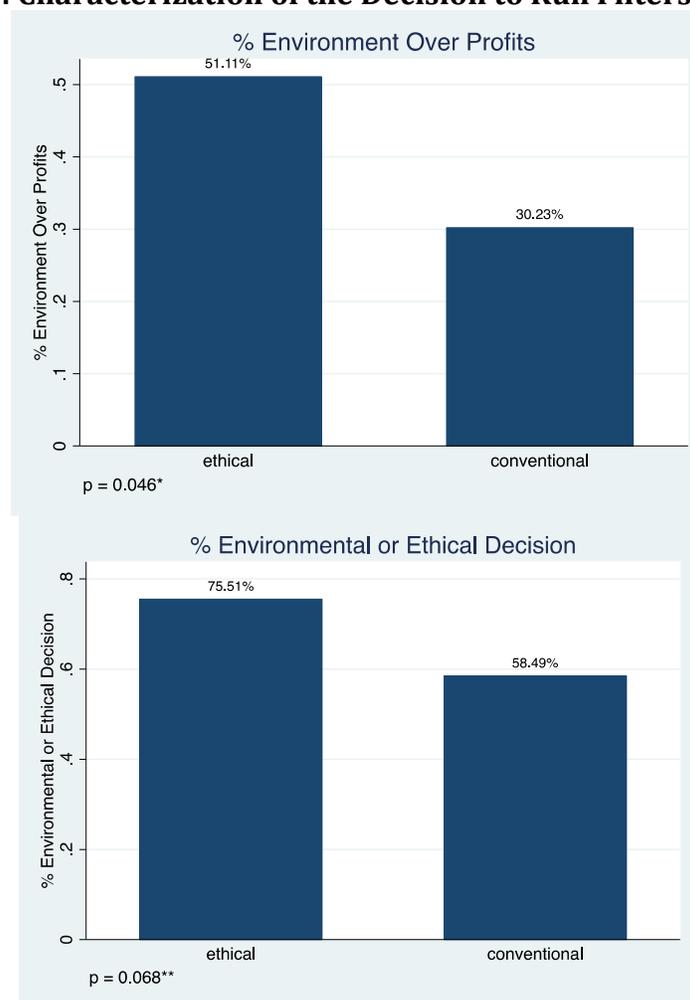
\*significant at  $p \leq 0.05$ , \*\*significant at  $p \leq 0.010$

After the manipulation in Experiment 4 we included additional survey questions to clarify the participants' choice in running the filters at particular levels. We wanted to understand whether those in the ethical store were more likely to frame the decision as ethical using two questions. The first asked participants about how they viewed the responsibility of the plant manager: they could choose between "to protect the environment first, and then to run the plant profitably" or

“to run the plant profitably, and then to protect the environment.” Cross-tabulation indicates that those in the ethical store were significantly more likely to agree that the responsibility of the plant manager was to protect the environment first than those in the conventional store.

We also asked participants whether they characterized the decision to run the filters as a personal, business, environmental, or ethical decision. Crosstabulation indicates that those in the ethical store were significantly more likely to characterize the decision as ethical or environmental than those in the conventional store, confirming the idea that in cases with less ambiguity, activities with ethical implications (e.g. shopping in an ethical store) activate moral codes that strengthen moral follow-up behavior.

**Figure 4: Characterization of the Decision to Run Filters**



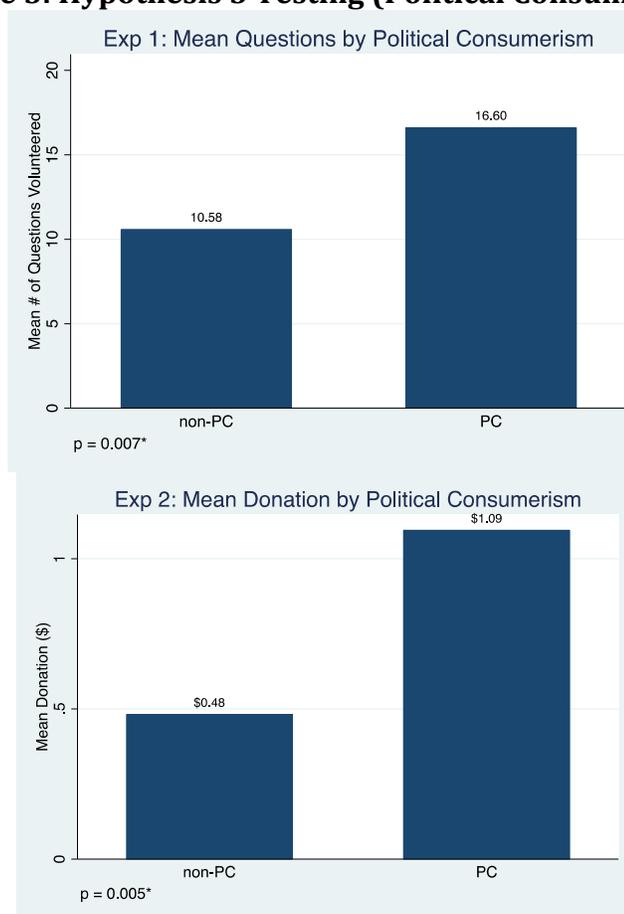
\*significant at  $p \leq 0.05$ , \*\*significant at  $p \leq 0.010$

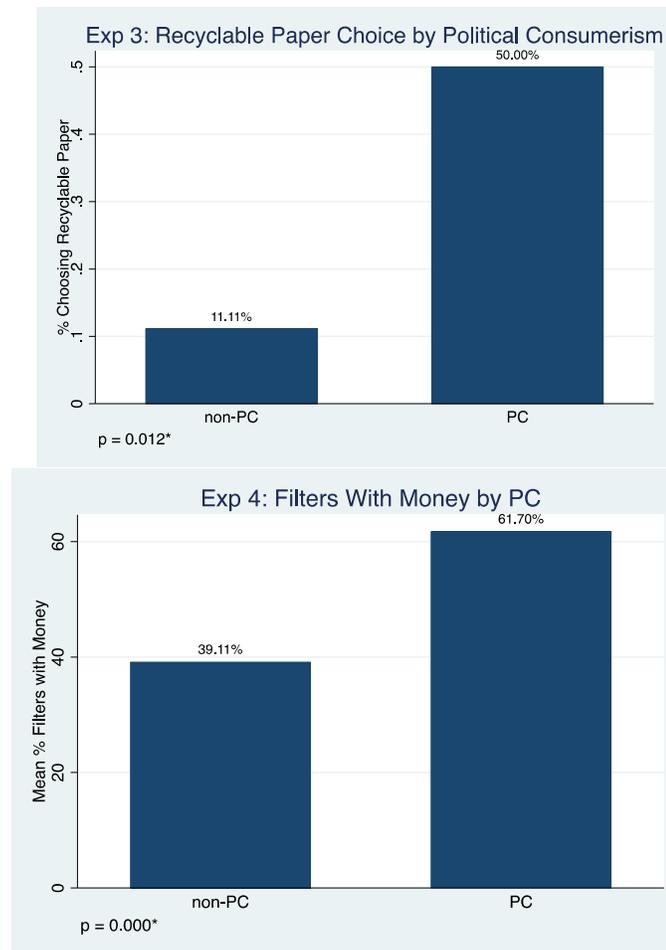
### Hypothesis 3

To test H2, we used a one-way ANOVA to compare the mean number of questions volunteered for, the mean donation amount, the mean paper choice, and the mean percentage participants ran the filters among political consumers and non-political consumers. In all four experiments, political consumers behaved

significantly more ethically than non-political consumers, which is consistent with H2. They volunteered for more questions (Experiment 1), donated more of their \$2 compensation (Experiment 2), were more likely to choose the recyclable paper (Experiment 3), and ran the filters at a higher percentage (Experiment 4) than non-political consumers. These results were all significant at the  $p \leq 0.05$  level, and are much stronger than our findings of the moral licensing effect tested in hypothesis 1, which were either only significant at the  $p \leq 0.10$  level, in the opposite direction, or not significant at all. These results also show the behavioral consistencies of people who claim to engage in regular acts of political consumerism. That is, people who regularly engage in ethical/environmental behavior are more prone to make the more moral/ethical choice in our subsequent behavior experiments, overpowering the effects of moral licensing.

**Figure 5: Hypothesis 3 Testing (Political Consumerism)**

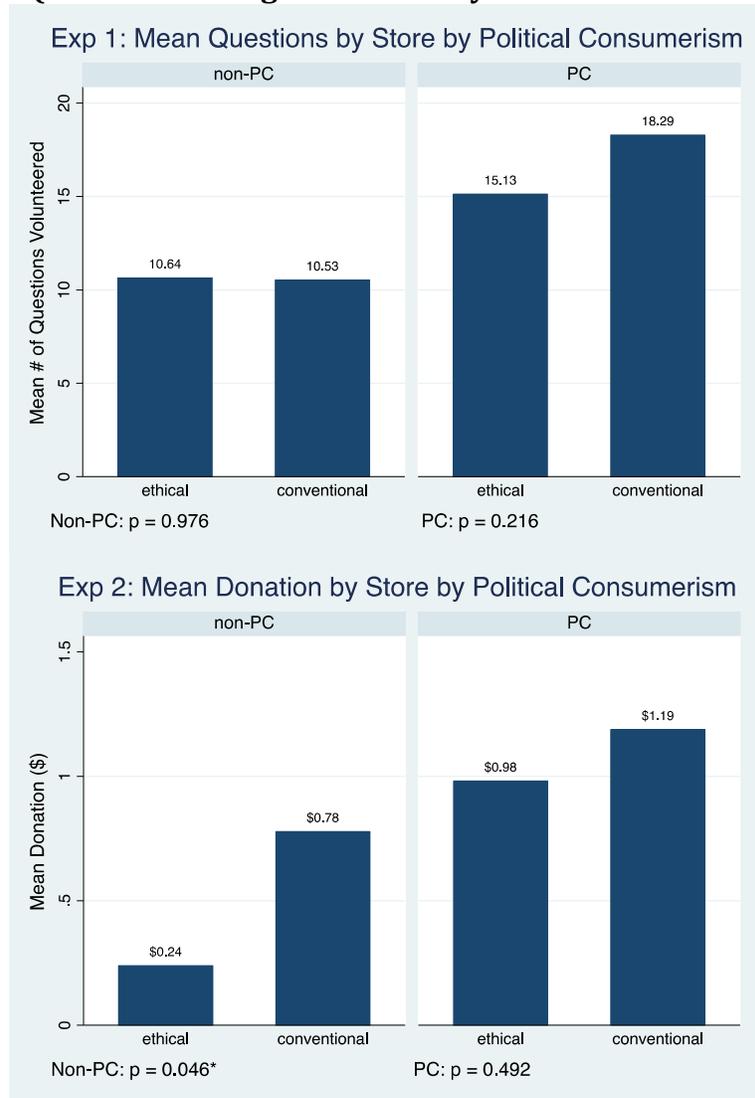


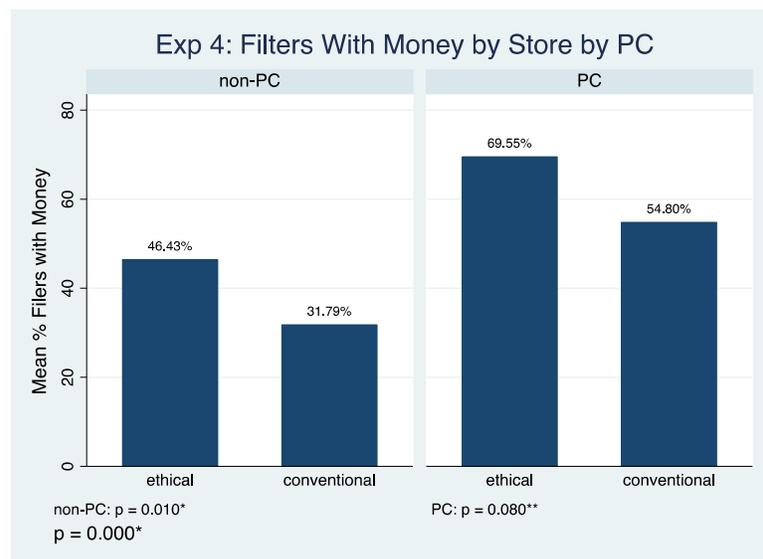
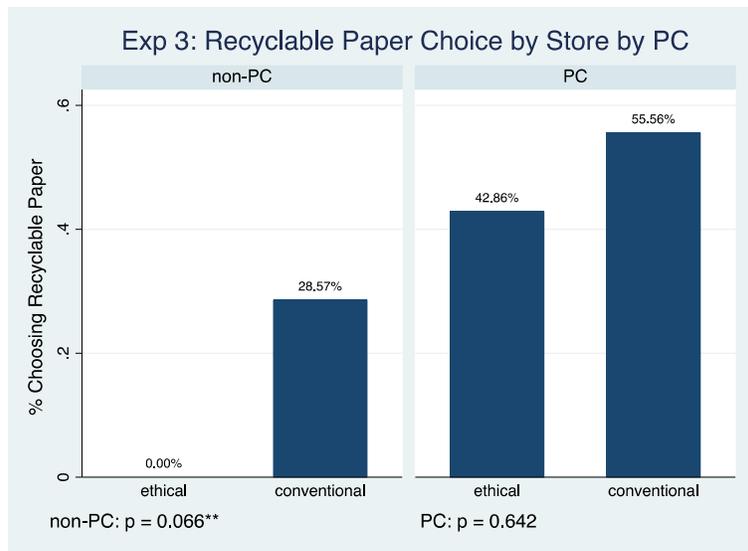


#### Hypothesis 4:

To test whether moral licensing is moderated by existing political consumerism, we re-performed the comparison of mean number of questions volunteered for, mean donation, and mean paper choice for political consumers and non-political consumers. For Experiment 1, moral licensing was not significant for either group. In Experiments 2 and 3, however, we found evidence in support of H4. Among non-political consumers, moral licensing continued to hold. Among political consumers, however, the licensing effect weakened in magnitude and significance. This supports hypothesis 4 that moral licensing diminishes among actual political consumers indicating that the effects found must mostly result from non-political consumers engaging in moral licensing. In Experiment 4, we found that the consistency effect was slightly weaker among political consumers, however the effect was still significant at the  $p \leq 0.10$  level.

**Figure 6: Hypothesis 3 Testing  
(Moral Licensing Moderated by Political Consumerism)**





## 5. Discussion

The findings from our four experiments indicate that moral licensing effects are real. Even when the follow-up behavior is closely related to the original moral activity we detected the moral licensing effect in two out of three experiments (Experiments 2 and 3). In Experiment 1, there were no significant differences between the follow-up behaviors of those shopping in the ethical and conventional stores. This could be the case because the costs of the subsequent activity (engaging in another volunteer study) were seen as too high.

However, and most importantly, moral licensing is not a blanket and one-size-for-all-effect. Indeed, our paper delivers distinct results that are important for the refining of the moral licensing literature. One of the main distinctions between our experiments was the idea whether the follow-up behavior allows for rationalization of immoral behavior or not. As hypothesized, we found that in the case of low rationalization moral licensing did not occur, indeed the opposite is true.

In Experiment 4, having been primed with moral values in the ethical store, those participants were much more likely to forego a higher pay for lowering the filter use, which was clearly the more moral choice. In this sense our work here confirms the ideas of about the importance of rationalization of immoral behavior for moral licensing to occur. Clearly, moral licensing does not occur consistently.

The most important contribution of this paper is the analysis of the conditioning effect of political consumerism, as example of people who engage in habitual moral behavior. First of all, political consumers act in a more ethical and moral way in all four experimental scenarios tested here compared to non-political consumers. More importantly, political consumers do not engage in moral licensing. That is because when political consumers shop in an ethical store with the kind of products we assume they normally or sometimes buy, they do not feel the license to engage in follow-up immoral or unethical behavior. That is in contrast to non-political consumers, who engaged in moral licensing in two out of three experiments where we expected moral licensing effects (Experiments 2 and 3). This seems to indicate that purchasing ethical products only licenses unethical behavior among those weakly committed to political consumerism. Actual political consumers, in contrast, display much more consistency in their behavior. They are unlikely to disengage from their goals simply as a result of past virtuous behavior. Our findings indicate that there are limits to and conditions of moral licensing.

A few words on social desirability are necessary for Experiment 4, as the follow-up tasks involve a hypothetical scenario on the reduction of pollution. The participants click their answers in an online survey program, and might anticipate that researchers have access to their answers, which is in contrast to Experiments 1 through 3 when participants do not know that their follow-up behavior is observed. However, all participants should be affected by this social desirability, which cannot explain the results we received that participants in the ethical store are more inclined to maintain filter usage even when offered parts of their salary if they do not. However, there is a possibility that social desirability determines more positive answers about political consumerism and filter use. The fact though that political consumers also follow-up with equally moral behavior even when they do not know that their behavior is observed, however, confirms that political consumerism has real consequences that do not diminish when opportunities arise to cut corners.

### References

- Aquino, Karl and Americus Reed. 2002. "The self-importance of moral identity." *Journal of Personality and Social Psychology* 83, 6: 1423-1440.
- Baek, Young Min. 2010. "To Buy or Not to Buy: Who are Political Consumers? What do they Think and How Do they Participate?" *Political Studies* 58: 1065 - 1086.
- Berglind, Matthew and Cheryl Nakata. 2005. "Cause-related marketing: More buck than bang?" *Business Horizons* 48, 5: 443-453.
- Blasi, A. 1984. "Moral identity: Its role in moral functioning." In *Morality, moral behavior, and moral development*, eds. William M. Kurtines and Jacob L. Gewirtz. New York: Wiley.
- Boström, Magnus and Mikael Klintman. 2008. *Eco-Standards, Product Labelling, and Green Consumerism*. New York: Palgrave Macmillan.
- Brown, Ryan P., Michael Tamborski, Xiaoqian Wang, Collin D. Barnes, Michael D. Mumford, Shane Connelly, and Lynn D. Devenport. 2011. "Moral Credentialing and the Rationalization of Misconduct." *Ethics and Behavior* 21, 1: 1-12.
- Conway, Paul, and Johanna Peetz. 2012. "When Does Feeling Moral Actually Make You a Better Person? Conceptual Abstraction Moderates Whether Past Moral Deeds Motivate Consistency or Compensatory Behavior." *Personality and Social Psychology Bulletin* 38.7: 907-19.
- Corner, Adam and Alex Randall. 2011. "Selling climate change? The limitations of social marketing as a strategy for climate change public engagement." *Global Environmental Change* 21, 3: 1005-1014.
- Eikenberry, Angela M. 2009. "The Hidden Costs of Cause Marketing." *Stanford Social Innovation Review*: 51-55.
- Effron, Daniel A., Monin, Benoit and, Miller, Dale T. (2012) "The unhealthy road not take: Licensing indulgence by exaggerating counterfactual sins." *Journal of Experimental Social Psychology* 49(3), 573-578
- Effron, Daniel A. and Benoit Monin. 2010. "Letting People Off the Hook: When Do Good Deeds Excuse Transgressions?" *Personality and Social Psychology Bulletin* 36, 12: 1618-1634.
- Effron, Daniel A., Jessica S. Cameron and Benoit Monin. 2009. "Endorsing Obama licenses favoring Whites." *Journal of Experimental Social Psychology* 45, 3: 590-593.
- Elliot, A. J., & Devine, P. G, 1994. On the motivational nature of cognitive dissonance: Dissonance as psychological discomfort. *Journal of Personality and Social Psychology*, 67(3), 382-394.
- Fanelli, D. 2010. "Do pressures to publish increase scientists' bias? an empirical support from US states data." *PloS One*, 5, 4: 1.
- Festinger, Leon. 1957. *A theory of cognitive dissonance*. Stanford University Press.
- Freedman, Jonathan L. and Scott C. Fraser. 1966. "Compliance without pressure: the foot-in-the-door technique." *Journal of Personality and Social Psychology*. Vol 4, 2: 195-202.
- Harrison, Rob, Terry Newholm and Deirdre Shaw. 2005. *The Ethical Consumer*. SAGE Publications Ltd.

- Hirschberger, Gilad and Tom Pyszczynski. 2011. "Killing with a Clean Conscience: Existential Angst and the Paradox of Morality." Accessed August 5 2011 at <http://portal.idc.ac.il/en/Symposium/HSPSP/2010/Documents/18-hirschberger.pdf>
- Higgins, E. T. (1996). "The "self digest": Self-knowledge serving self-regulatory functions." *Journal of Personality and Social Psychology*, 71(6), 1062-1083.
- Jordan, Jennifer, Elizabeth Mullen, and J. Keith Murnighan. 2011. "Striving for the Moral Self: The Effects of Recalling Past Moral Actions on Future Moral Behavior." *Personality and Social Psychology Bulletin* 37, 5: 701-713.
- Kahn, Kahn Uzma and Ravi Dhar. 2006. "Licensing Effect in Consumer Choice." *Journal of Marketing Research* 43, 2: 259-266.
- Kardes, Frank R., Maria L. Cronley, and Thomas W. Cline. 2010. *Consumer Behavior*. Cengage Learning.
- Langen, Nina. 2011. "Are ethical consumption and charitable giving substitutes or not? Insights into consumers' coffee choice." *Food Quality and Preference* 22: 412-421.
- Littler, Jo. 2009. *Radical Consumption: Shopping for change in contemporary culture*. New York: Open University Press.
- Mannetti, Lucia, Antonio Pierro, and Stefano Livi. 2004. "Recycling: Planned and self-expressive behavior." *Journal of Environmental Psychology* 24, 2: 227-236.
- Mazar, Nina and Chen-Bo Zhong. 2010. "Do Green Products Make Us Better People?" *Psychological Science* 21, 4: 494-498.
- McConahay, J. B., Hardee, B. B., & Batts, V. (1981). "Has racism declined in America? It depends on who is asking and what is asked." *Journal of Conflict Resolution*, 25, 563-571.
- Merritt, Anna C., Daniel A. Effron, and Benoit Monin. 2010. "Moral Self-Licensing: When Being Good Frees Us to Be Bad." *Social and Personality Psychology Compass* 4, 5: 344-357.
- Micheletti, Michele. 2003. *Political virtue and shopping: individuals, consumerism, and collective action*. Palgrave Macmillan.
- Micheletti, Michele and Dietlind Stolle. 2007. "Mobilizing consumers for global social justice responsibility-taking." *The Annals of the American Academy of Political and Social Science*. 611, 1: 157-175.
- Micheletti, Michele and Dietlind Stolle. 2010. "Vegetarianism – A Lifestyle Politics?" In *Creative Participation: Responsibility-Taking in the Political World*, eds. Michele Micheletti and Andrew S. McFarland. Boulder: Paradigm Publishers.
- Monin, Benoît and Alexander H. Jordan. 2009. "The Dynamic Moral Self: A Social Psychological Perspective." In *Moral Self, Identity and Character: Prospects for a New Field of Study*, eds. D. Naravez and D. Lapsley. Cambridge University Press.
- Monin, Benoît and Dale T. Miller. 2001. "Moral Credentials and the Expression of Prejudice." *Journal of Personality and Social Psychology* 81, 1: 33-43.
- Neilson, Lisa A. 2010. "Boycott or boycott? Understanding political consumerism." *Journal of Consumer Behavior* 9, 3: 214-227.

- Newby-Clark, I. R., McGregor, I., & Zanna, M. P. 2002. "Thinking and caring about cognitive inconsistency: When and for whom does attitudinal ambivalence feel uncomfortable?" *Journal of Personality and Social Psychology*, 82,2: 157-166.
- Pigott, Therese D., et al. 2013. "Outcome-Reporting Bias in Education Research." *Educational Researcher* published online.
- Sachdeva, Sonya, Rumen Illiev, and Douglas L. Medin. 2009. "Sinning Saints and Sainly Sinners: The Paradox of Moral Self-Regulation." *Psychological Science* 20, 4: 523-528.
- Schuldt, Jonathon P. and Norbert Schwarz (2010). "The 'organic' path to obesity? Organic claims influence calorie judgments and exercise recommendations." *Judgement and Decision Making* 5, 3: 144-150.
- Scott, David and Fen K. Willits. 1994. "Environmental attitudes and behavior: A Pennsylvania Survey." *Environment and Behavior* 26, 2: 239-260.
- Stolle, Dietlind and Michele Micheletti. 2013. *Political Consumerism—Global Responsibility in Action*. Cambridge University Press.
- Stolle, Dietlind, Marc Hooghe, and Michele Micheletti. 2005. "Politics in the Supermarket: Political Consumerism as a Form of Political Participation." *International Political Science Review* 26, 3: 245-269.
- Thøgersen, John. 1999. "Spillover processes in the development of a sustainable consumption pattern." *Journal of Economic Psychology* 20, 1: 53-81.
- Thøgersen, John and Tom Crompton. 2009. "Simple and Painless? The Limitations of Spillover in Environmental Campaigning." *Journal of Consumer Policy* 32: 141-163.
- Turcotte, Martin. 2010. "Ethical consumption." *Canadian Social Trends: Statistics Canada*, Catalogue no. 11-008-X. Accessed July 25 2011 at <http://www.statcan.gc.ca/pub/11-008-x/2011001/article/11399-eng.htm>
- Whitmarsh, Lorraine and Saffron O'Neill. 2010. "Green identity, green living? The role of pro-environmental self-identity in determining consistency across diverse pro- environmental behaviors." *Journal of Environmental Psychology* 30, 3: 305-314.
- Zhong, Chen-Bo, Katie A. Liljenquist, and Daylian M. Cain. 2009. "Moral Self-Regulation: Licensing and Compensation." In *Psychological Perspectives on Ethical Behavior and Decision Making*, eds. David C. Cremer. Information Age Publishing Inc.

## APPENDIX

### Question Wording

#### Filler task:

1. What did you like and/or dislike most about the online store? □
2. Were you familiar with most of products in the store? Were there any other products that you would have liked to see?
3. Were the products that you chose reflective what you usually buy in real life? Explain. □

## Seeds of Change Logo



*Political consumerism index:* “How often do you do each of the following things?”  
(never, rarely, now and then, often, very often).<sup>19</sup>

1. Avoid using disposable items (e.g. plastic forks, paper plates, etc.) Whoops, this is not pol consumerism classically speaking
2. Choose environmentally-friendly products regardless of price
3. Boycott products of companies that are not environmentally responsible
4. Choose environmentally-friendly products if they are available at a similar price
- 5.

*Preliminary survey:* How often do you do each of the following things? (very often, often, now and then, rarely, never)

1. Avoid using disposable items (e.g. plastic forks, paper plates, etc.)
2. Make purchases online (e.g. books, clothing, concert tickets, etc.)
3. Choose environmentally-friendly products regardless of price
4. Boycott products of companies that are not environmentally responsible
5. Choose environmentally-friendly products if they are available at a similar price
6. Use Facebook, Twitter, or other social media (Tumblr, blogs) in a given day?
7. Go grocery shopping

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<sup>19</sup> DISCUSSION: One problem with the political consumerism index was that it only measured the frequency of political consumerism. As Stolle, Hooge and Michelletti (2005) argue, in order to distinguish political consumerism from non-political acts, it is necessary take into account awareness and motivation. They explain: “it is entirely possible that people buy fair-trade products simply because they prefer the taste or because they are on sale” (255). Therefore, political consumers must not only boycott or boycott on a regular basis, but they must do so out of a desire to change social conditions.

*Environmental Cooperative Game:*

1. Imagine that you are in charge of a manufacturing plant that releases pollutants into the air via smokestacks. The release of pollutants can be averted by running filters at a monetary cost. Under pressure from some environmental groups, all the managers of such plants had agreed to run their filters 60% of the time, at a cost of \$1.2 million. The question for you is whether you would like to stick with the agreement and run the filters 60% of the time. Alternatively you could choose to run the filters for any 10% interval between 0% and 100%, with each interval carrying a cost of \$0.2 million. For example, the price tag associated with running filters 40% of the time would be \$0.8 million.

At what percentage of the time would you want to run the filters? (0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%)

2. In the envelope at your workstation you will find some change. For each 10% that you lower the time of running the filters from the agreement, you can keep \$0.25 from the envelope for yourself (this is in addition to your \$2 compensation for the study, which you may also take from the envelope). For example, if you run the filters at 50%, you can keep an additional \$0.25, if you run them at 40%, you can keep \$0.50, if you run them at 30%, you can keep \$0.75, if you run them at 20%, you can keep \$1.00, if you run them at 10%, you can keep \$1.25 and so on. You do not receive any extra money from the envelope if you keep the filters at 60% or above.

Under these conditions, at which percentage of the time do you want to run the filters? (0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%)

3. What do you think is the percentage at which all other plant managers would run their filters? (0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%)

4. What do you think is the responsibility of a plant manager in such a situation?

To run the plant profitably

To protect the environment

To run the plant profitably, and then to protect the environment

To protect the environment, and then run the plant profitably

5. How likely do you think it is that you would be caught if you did not adhere to the agreement (i.e. of running the filter 60% of the time)?

Very likely

Likely

Unlikely

Very unlikely

6. The decision to run the filters for a certain period of time at a monetary cost is a(n)...

- Personal decision
- Business decision
- Environmental decision
- Ethical decision

## Results

Manipulation Check: Mean total amount spent and differences between two stores in terms of the total amount spent on ethical products

Exp.	Total Spent	Total Spent on Ethical Products		F-test	P-value
		Ethical	Conventional		
1	M = \$23.47 SD = 2.91	M = \$23.42 SD = 2.23	M = \$2.95 SD = 2.92	F(1,75) = 1192.91	p = 0.000*
2	M = \$21.53 SD = 4.12	M = \$20.48 SD = 4.81	M = \$3.10 SD = 2.63	F (1,47) = 249.304	p = 0.000*
3	M = \$22.63 SD = 3.57	M = \$22.17 SD = 2.89	M = \$2.5 SD = 2.58	F (1,32) = 433.22	p = 0.000*
4	M = \$23.23 SD = 3.38	M = \$21.25 SD = 5.67	M = \$3.4 SD = 2.85	F (1,96) = 392.71	p = 0.000*

## Hypotheses 1 and 2: Testing using a one-way ANOVA

	Dependent variable	Ethical	Conventional	F-test	P-value
1	Mean number of questions volunteered out of 30	M = 13.47 SD = 9.46	M = 14.60 SD = 10.36	F(1,76) = 0.25	p = 0.6182
2	Mean donation amount out of \$2	M = \$0.64 SD = 0.78	M = \$1.04 SD = 0.71	F(1,47) = 3.51	p = 0.067**
3	Mean paper choice (1 = recyclable, 0 = regular)	M = 0.16 SD = 0.09	M = 0.44 SD = 0.13	F(1,32) = 3.09	p = 0.088**
4	Mean amount lowered the filters with money	M = 4.6% SD = 18.34	M = 20.75% SD = 32.45	F(1,101) = 9.50	p = 0.003*

Note: \*significant at  $p \leq 0.05$ , \*\*significant at  $p \leq 0.10$

**Hypothesis 3: Testing using a one-way ANOVA**

	<b>Dependent variable</b>	<b>Political Cons.</b>	<b>Non-pol. Cons.</b>	<b>F-test</b>	<b>P-value</b>
<b>1</b>	Mean number of questions volunteered out of 30	M = 16.60 SD = 8.48	M = 10.57 SD = 10.71	F(1,76) = 7.68	p = 0.007*
<b>2</b>	Mean donation amount out of \$2	M = \$1.09 SD = 0.76	M = \$0.48 SD = 0.61	F(1,47) = 8.859	p = 0.005*
<b>3</b>	Mean paper choice (1 = recyclable, 0 = regular)	M = 0.50 SD = 0.52	M = 0.11 SD = 0.32	F(1,32) = 7.10	p = 0.012*
<b>4</b>	Mean amount lowered the filters with money	M = 7.02% SD = 22.45	M = 17.86% SD = 30.73	F(1,101) = 4.03	p = 0.047*

Note: \*significant at  $p \leq 0.05$ , \*\*significant at  $p \leq 0.10$

**Hypothesis 4: Testing using a one-way ANOVA**

	<b>Dependent variable</b>		<b>Ethical</b>	<b>Conventional</b>	<b>F-test</b>	<b>P-value</b>
<b>1</b>	Mean number of questions volunteered out of 30	<b>Non-PC</b>	M = 10.64 SD = 9.31	M = 10.53 SD = 11.89	F(1, 31) = 0.00	p = 0.976
		<b>PC</b>	M = 15.13 SD = 9.35	M = 19.29 SD = 8.23	F(1, 43) = 1.58	p = 0.216
<b>2</b>	Mean donation amount out of \$2	<b>Non-PC</b>	M = \$0.24 SD = 0.33	M = \$0.78 SD = 0.75	F(1,18) = 4.589	p = 0.046*
		<b>PC</b>	M = \$0.98 SD = 0.90	M = \$1.19 SD = 0.66	F(1,27) = 0.509	p = 0.481
<b>3</b>	Mean paper choice (1 = recyclable, 0 = regular)	<b>Non-PC</b>	M = 0.00 SD = 0.00	M = 0.29 SD = 0.49	F(1,16) = 3.91	p = 0.066**
		<b>PC</b>	M = 0.43 SD = 0.53	M = 0.56 SD = 0.53	F(1,14) = 0.23,	p = 0.642
<b>4</b>	Mean amount lowered the filters with money	<b>Non-PC</b>	M = 7.50% SD = 24.13	M = 28.21% SD = 33.45	F(1,54) = 7.06	p = 0.010*
		<b>PC</b>	M = 0.91% SD = 4.26	M = 12.40% SD = 29.76	F(1,45) = 3.21	p = 0.080**

Note: \*significant at  $p \leq 0.05$ , \*\*significant at  $p \leq 0.10$