UNIVERSIDADE FEDERAL DO PARANÁ

CECÍLIA SOUTO MAIOR DE BRITO

THE VALUE OF NON(MONETARY) BEHAVIORS: HOW MORALITY AND STATUS SHAPE CONSUMERS PERCEPTIONS ABOUT SUSTAINABLE ACTIONS

CURITIBA, 2021

CECÍLIA SOUTO MAIOR DE BRITO

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RESUMO

Dado o aumento da demanda para adoção de estilos de vidas mais sustentáveis, é importante entender como consumidores formam julgamentos e percepções sobre as diferentes mais sustentável. Pesquisas anteriores têm categorizado possibilidades de ser comportamentos sustentáveis como os associados a custos não-monetários (ex., andar para o trabalho demanda esforço e consome tempo) ou os associados a custos monetários (ex., ir ao trabalho dirigindo um carro elétrico é financeiramente dispendioso). Este estudo investiga a sinalização sobre comportamentos sustentáveis (não)monetários. Em quatro experimentos, esta pesquisa testa as hipóteses de que observadores formam percepções mais positivas sobre ações sustentáveis não-monetárias (versus monetárias), fazendo inferências mais positivas em relação a contribuição ambiental, elevação moral e imagem percebida. Adicionalmente, há evidências que julgamentos morais delineiam o efeito proposto. Dado o auto-investimento que o ator coloca em realizar a ação não-monetária, estes indivíduos são percebidos como alguém mais "moral" quando comparados aos indivíduos que compram produtos green. Embora pesquisas anteriores mostrem que comprar produtos green sinaliza status, este estudo mostra que o status não é suficiente para disparar inferências mais positivas sobre o ator (elevação moral - admiração) e sobre a contribuição da ação para o meio ambiente. Compreender como pessoas formam inferências sobre alternativas de consumo sustentável (não)monetário tem implicações importantes para a literatura sobre consumo sustentável, sinalização moral, e posicionamento de marcas. Ademais, ao realçar os valores nãomonetários associados a comportamentos sustentáveis, esta pesquisa ajuda profissionais e gestores de políticas públicas a motivar os consumidores a adotar práticas de redução do consumo.

Palavras-chave: teoria da sinalização de custos (costly signaling); moralidade; comportamentos sustentáveis (não)monetários; contribuição ambiental; elevação moral; imagem percebida; status.

ABSTRACT

Given the increasing demand for adopting a more sustainable lifestyle, it is important to understand the judgments and perceptions consumers form about the different possibilities of being sustainable. Previous research has categorized sustainable behaviors as those actions associated with non-monetary costs (e.g., walking to work is effortful and time-consuming) or those associated with monetary costs (e.g., driving an electric car to work is expensive). This study investigates consumers' inferences about (non)monetary sustainable behaviors. Across four experiments, this study tests the hypotheses that observers form more positive perceptions about non-monetary (vs. monetary) sustainable actions, making more positive inferences of environmental contribution, moral elevation, and image perception. There is also evidence that morality judgment shapes this effect. Given the actor's self-investment imputed in a non-monetary action, these individuals are perceived as signaling more moral compared to those that buy a green product. Although past research shows that buying a green product signals status, this study shows that it is not enough to trigger more positive inferences about the actor (moral elevation - admiration) and the contribution of the action to the environment. Understanding how people form inferences about (non)monetary sustainable consumption alternatives have important implications for sustainable consumption, moral signaling, and brand positioning literature. Further, by enhancing the non-monetary values associated with sustainable behaviors, this research can help practitioners and public polices to motivate consumers to adopt consumption reduction practices.

Keywords: costly signaling, morality, (non)monetary sustainable behaviors, environmental contribution, moral elevation, perceived image, status.

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1. INTRODUCTION

In the last 30 years, claims for pro-environmental behavior transition have been fostered in many ways: From government regulation to consumer daily behaviors (Cohen, 2020). Green brands have grown twice more than their traditional counterparts (Kronthal-Sacco & Whelan, 2019). Also, recent reports show that the waste compost and solar energy markets expect to reach a compound annual growth rate (CAGR) of 6.8% and 20.5% by 2024 and 2026, respectively (Lucintel, 2020). As marketers have massively used sustainable appeals and attributes to encourage consumers to adopt a green lifestyle (Leonidou et al, 2011, Joshi & Kronrod, 2020), buying green products has become a commodity (Prothero & Fitchett, 2000; Prothero et al., 2010). However, although compared to regular products, purchasing green products is better for the environment, contradictorily, it follows the traditional capitalist perspective, which stimulates continuous consumption of goods (Akenji, 2014; Huttel et al, 2018).

From consumers' perspective, everyday consumption practices have become opportunities for sustainable behaviors (Adams & Raisborough, 2010), but forecasts are still alarming. A report from the World Economic Forum (2016) estimated that in 2050, if current rates of plastic dumping hold, there will be more plastic than fishes in oceans by weight. Claims for structural changes had given space for monetary (buying green products) and nonmonetary (i.e. reduce consumption) sustainable consumption acts (Akenji et al., 2011; Akenji 2014; Herring & Sorrel, 2009). Several studies have explored the underlying mechanisms that motivate people to buy green products. For instance, research on social signaling has established that people may choose sustainable products to signal higher social status (Griskevicius et al, 2010; Hardy & Van Vugt, 2006; Kamleitner et al., 2010). However, signaling about non-monetary sustainable practices (i.e. extending a product lifespan) needs further investigation since there are both positive and negative judgments involving these practices (Lee et al. 2020; Sekhon & Soule, 2020; Muncy & Iyer, 2020). For instance, Sekhon and Soule(2020) demonstrate that people who adopt non-monetary sustainable behaviors are perceived with lack of resources and lower socioeconomic status. Instead, Chancelor and Lyubomirsk (2011) argue that happiness may arise from non-monetary sustainable practices, such as recycling and reducing consumption.

Non-monetary sustainable behaviors are neglected in previous literature, by exploring them this research shows that non-monetary sustainable behavior triggers more positive evaluations (i.e. contribution to the environment, moral elevation, and image perception) compared to monetary sustainable actions. This research contributes to the research on sustainable behavior, costly signaling, morality, and status brand positioning. There is also evidence that morality associated with non-monetary actions shapes these judgments. Interesting, while status is more strongly associated with monetary sustainable actions, it was not sufficient to overcome the more positive judgments associated with non-monetary actions. Further, there is initial evidence that low and high-status brands may be benefit from non-monetary sustainable behaviors. Instead, for high-status brands, monetary sustainable practices may backfires. These findings advance previous knowledge on sustainable consumption by demonstrating how consumers form positive perceptions about (non)monetary sustainable actions from the costly signaling perspective. Also, this research contributes to the literature on morality judgments and signaling theory showing how morality is a key piece for stimulating sustainable behaviors.

2. THEORETICAL BACKGROUND

2.1 (Non)Monetary Sustainable Behaviors

Sustainable consumer behaviors are those practices aimed to minimize environmental effects (Kilbourne, McDonagh, & Prothero, 1997; Semprebon et al., 2020), and include purchasing green products or refraining from buying new products (Chatzidakis & Lee, 2013). There is a wide range of sustainable consumption options, which can be broadly defined as actions that result in environmental contribution by decreasing utilization of resources and decreasing adverse environmental impacts (White, Habib & Hardisty, 2019, p. 24). Given the wide range of actions involving sustainable consumption, research has commonly characterized sustainable actions in two dimensions: efficiency and curtailment behaviors; or green consumption and consumption-reducing (Stern & Gardner, 1981; Karlin et al., 2014). The main differences between efficiency and curtailment behaviors are based on the monetary and non-monetary costs, such as money, time and efforts associated with performing them (Karlin et al., 2014).

Efficiency behaviors (i.e. install solar panel, buy an electric car, consume organic food) are the substitution of regular product consumption for similar ones with lower environmental impact, involve high monetary cost but low non-monetary costs (Jansson et al. 2010; Brooks & Wilson, 2015; De Nardo et al. 2017; Uren et al., 2019). Efficiency sustainable actions are present when consumers pay for products and services with sustainable certificates (Luchs, Brower & Chitturi 2012; Pickett-Baker & Ozaki 2008). Curtailment behaviors (i.e. reuse food containers, repair clothes, riding in public transport or walking instead of driving a car) include the reduction or change in the consumption achieved

through personal effort rather than purchases, usually involve low monetary cost but high non-monetary costs (e.g., time, knowledge, effort, inconvenience) (Jansson et al., 2010; Brooks & Wilson, 2015; De Nardo et al. 2017; Uren et al., 2019). Curtailment sustainable consumer actions may include voluntarily reducing consumption (Leonard-Barton 1981; McDonald et al. 2006), adopting sustainable modes of waste disposal (White & Simpson, 2013); repurposing products (Scott & Weaver 2018), adopting multi-modal sustainable transports (Herberz, Hahnel & Brosch, 2020), and conserving resources, such as energy and water (Lin & Chang, 2012; White, Simpson, & Argo, 2014). In short, efficiency behaviors are sustainable actions associated with higher monetary costs, while curtailment behaviors involve higher non-monetary costs, from now on, namely monetary and non-monetary sustainable behavior, respectively.

Although there are many sustainable consumption options to adopt, scholars and practitioners frequently bump into the intention-attitude gap, motivating them to explore how to encourage consumers to embrace sustainable behaviors (ElHaffar, Durif & Dubé, 2020; Semprebon et al., 2020; White et al., 2019). Recent literature puts social signaling in evidence because consumers may choose sustainable behaviors to impress others (Green & Peloza, 2014, Griskevicius, Tybur, & Bergh, 2010; Luomala et al., 2020). Social signaling is the "act of conveying information about oneself in an implicit fashion, by engaging in behaviors that reveal one's traits and preferences to observers" (Bennett & Chakravarti, 2008, p. 1).

In the social signaling theory, seminal work explains that a signal can only be distinguished from another because of the costs related to the signaling (Spence, 1973). Previous research shows that the costs associated with companies' virtuous actions influence consumers positive perception about the company (Atkinson & Rosenthal, 2014; Menon &

Kahn, 2003; Langan & Kumar, 2019). As companies dedicate resources to increase their positive perception, people also engage in virtuous acts as a way of signaling their qualities and resources (Bliege-Bird & Smith 2005; Grafen, 1990; McAndrew 2002; Zahavi, 1977). Individuals are also judged for their behavior by the signaling perception others form about these actions (McAndrew, 2019).

The current research on (non)monetary sustainable behaviors explores how the cost of these actions signals status, mostly showing that non-monetary sustainable action leads to lower status perceptions (Denardo et al., 2017; Sekhon & Soule, 2020; Uren et al., 2019). For instance, Denardo et al. (2017) demonstrate that the uncertainty about the motivations, increase the inference that non-monetary sustainable actions are associated with lower socioeconomic status. Motivation is also present on Sekhon and Soule (2020), showing that consumers perceive financial constraint in a decision for repairing a jacket, a non-monetary sustainable behavior. However, when the jacket has a luxury brand label, the status signaling of the action is reestablished. Moreover, when compared to consumption intensive behaviors, reducing consumption may be perceived to be less appropriate for conveying status (Brooks & Wilson, 2015). Uren et al. (2009) summarizes all these findings demonstrating that the intensity of visibility, cost, and effort are predictors of perceived status for (non)monetary sustainable behaviors.

However, non-monetary sustainable actions may not always trigger a negative signaling. Strength and meaning influence how observers interpret signals (Dunham, 2011). For instance, Langan and Kuman (2019) show that corporate donations of time lead to higher levels of perceived effort, compared to monetary donation, which induced more altruistic motivation perception. In a similar way that Langan and Kuman (2019) found that companies have a more positive judgment when they donate time, Reed et al. (2016) show that

individuals giving time for charity is associated with self-investment and effort. When an individual performs (non) monetary sustainable behaviors, consumers form perceptions about the behavior based on the costs associated with it. The perceived value of a consumption action can be defined by the ratio between perceived benefits and perceived sacrifice, including monetary and non-monetary costs (Monroe, 2002, Örgev & Bekar, 2013). Moreover, perceived benefits have a positive influence on evaluations about the product, whereas perceived sacrifice has a negative influence (Örgev & Bekar, 2013). Instead, based on the costly signaling theory (i.e. competitive altruism, Hardy & Van Vugt, 2006), when judging a virtuous behavior, the perceived sacrifice invested to the collective benefit may trigger more positive judgments. For instance, Rajapkasa et al (2019) show that non-monetary values have higher impact on reducing consumption than monetary incentives. The authors show that, compared to monetary incentives, non-monetary incentives lead to lower levels of residential water consumption and higher pro-enviromental intentions.

Likewise, observers use the actor's effort and commitment perception to form their judgments about the impact of this action and about the actor. For instance, a non-monetary sustainable action (i.e. reducing consumption) is associated with efforts against the acquisition of goods and use of disposable resources (Zavestoski, 2002; Chatzidakis and Lee, 2013). When the non-monetary costs are high, perceived as more effortful, it engenders a more positive evaluation about the actor and about the contribution of the action to preserve the environment. Further, when people are exposed to acts of uncommon moral goodness, they experience moral elevation (Aquino, McFerran & Laven, 2011). Since non-monetary sustainable actions are still unusual, and more effortful than monetary sustainable behavior, for the same reason, it is argued that observers feel higher moral elevation sensations. Finally, people form image perception about others according to signaling cues. Previous research has shown that prosocial and altruistic behaviors enhance consumers reputation (Gershon et al.,

2020, McAndrew , 2002, Millet & Dewitte, 2007). Given non-monetary sustainable behaviors signal unusual effort for the collective good, it is argued that it boosts image perceptions about the acton. Differently, when a monetary sustainable act is performed (i.e. buy a green product), it signals to others that the actor can spend more monetary resources (Hardy & Van Vugt, 2006). Spending money is perceived as easier for those who have money to spare, but it is less related with a self-investment and effort to preserve natural resources. That is, non-monetary sustainable behavior will trigger more positive inferences about the actor (e.g., moral elevation – admiration, positive image) and also about the contribution of the action to the environment, compared to monetary sustainable behavior. Formally,

H1: Sustainable behaviors generate more positive inferences about (a)environmental contribution, (b) moral elevation, (c) image perception when associated with a non-monetary (vs. monetary) actions.

2.2 Sustainable Behavior and Morality Judgments

A prominent avenue to incentive people to change behavior is based on moral values (Sangately et al., 2016). Morality refers to perceived correctness of individual regarding honesty, sincerity, and trustworthiness (Brambilla et al., 2011). Moral is "prescriptive judgments of justice, rights, and welfare pertaining to how people ought to relate to each other" (Turiel, 1983, p.2). In short, moral behaviors are responsive to the need of others (Aquino et al., 2007).

According to Jones and Davis (1965) when people infer about a person action, they interpret the causal antecedents to determine if the consequences of the action are in response of actor intentions. Morality judgments are a result of the attributions related to causality, intentionality, and magnitude of the consequences regarding a behavior (Anderson et al., 2020; Weiner, 1995). Past research demonstrates that the effort an individual does to achieve a goal may be linked to moral judgments (Jones & Davis, 1965; Weiner, 2000; Fong, 2001). When the effort and personal costs to perform a behavior are perceived to be high, people evaluate that the actor has a stronger moral character (Bigman & Tamir, 2016; Bliege Bird & Smith, 2005). For instance, Reed, Aquino, and Levy (2007) show that morality cues positively influence consumers to give time, instead of money, to a social cause. However, any past research associated non-monetary sustainable behavior with higher moral character. We suggest that when consumers spend more time and effort to perform a sustainable action, they will be evaluated as more moral, compared with a sustainable behavior based on higher monetary costs. This moral judgment will shape the more positive inferences about the action and its contribution to the environment.

In this sense, Steg and Vlek (2009) argue that there are three key motivators for sustainable behavior change: costs, benefits, and moral. When someone makes a sustainable choice, others can make inferences about the type of person he/she is (Bodner & Prelec, 2003). Results of previous research gives cues about how sustainable behaviors and morality are related. For instance, moral identity and priming moral positively impact sustainable intentions and behaviors (Kidwell, Farmer, & Hardesty 2013; Olson et al., 216; White et al., 2019). Further, Olson et al. (2016) demonstrate that choosing green products influences moral judgments about the actor.

Morality perceptions are results of judgments regarding how the behavior exceeds typical duties and obligations (Anderson et al., 2020). Therefore, positive morality judgments are the perception that someone did more effort than usual for the collective benefit. In a person-based morality judgment, when a sustainable behavior is associated with nonmonetary costs, the self-investment is more salient than when the sustainable act is associated with monetary cost. For instance, time donations are perceived as a costly moral action, given their visibility and immediacy, showing that who donates time to a prosocial cause is a good person, while monetary donations are perceived as compensation of investments (Ariely, Bracha & Meier 2009; Ellingsen & Johannesson, 2009; Liu & Aaker 2008; Macdonnell & White, 2015). Also, consumers view time-donations as more morally praiseworthy and more diagnostic of moral character than money-donations, even when the resource investment is comparable (Johnson & Park, 2020). For instance, Gino and Mogilner (2014) show that priming time, rather than money, leads individuals to behave more ethically. That is, moral evaluations strongly predict liking and respect for an individual (Hartley et al. 2016). This research suggests that the morality associated with non-monetary donation is also perceived when consumers perform sustainable actions that are more time and effort demanding. Following the same perspective, although monetary sustainable actions are characterized as more efficient in terms of use of natural resources, increasing the social status of the actor, they are not perceived as moral as non-monetary sustainable actions because the actor is not actively involved with the behavior of being more altruistic. While monetary sustainable actions are perceived as easier to perform when the person can spend money, they elicit only an economic utility and are less associated with the actor's social concern.

As moral judgments operate like an answer to the question 'Is this a good person?' rather than 'is this a good action?' (Anderson et al., 2020), it is proposed that the non-monetary costs associated with sustainable behaviors signal the good moral character of the

actor who performed the sustainable action. Given that behaviors may vary in their symbolic significance, morality judgments represent a potential implication for how these behaviors are perceived and adopted (Noppers et al., 2014; Sütterlin & Siegrist, 2014). Further, sustainable acts may influence reputation, trustworthiness, and likeability (Barclay, 2004; Semmann, Krambeck & Milinski, 2005; Griskevicius et al., 2007). Therefore, this research proposes that moral judgments shape the impact of (non)monetary behavior on consumer's evaluations about the sustainable action. More specifically, people associate non-monetary sustainable behavior with higher effort and self-investment to save resources for future generations, increasing morality perceptions, compared to sustainable behavior based on spending monetary resources. This moral judgment will rise the more positive evaluations about the contribution of the action to the environment. Formally,

H2. Morality judgment mediates the relation between (non)monetary sustainable action and positive inferences about (a) environmental contribution, (b) moral elevation, (c) image perception.

METHOD

3.1 Overview of Experiments

Four studies were conducted to test the proposed hypothesis across different scenarios. Study 1 shows that sustainable action (non-monetary vs. monetary) impacts judgments about the potential contribution of the action. There is also initial evidence that morality shapes this relationship. Study 2 replicates these findings in a different scenario, also showing that moral elevation (i.e. admiration) is another positive outcome of (non)monetary sustainable actions. Study 3 manipulates the associated costs across the same sustainable behavior to further investigate the previous findings and demonstrate that the proposed effects only emerge for high costs (non)monetary costs. Finally, the goal of study 4 is to show the impact of brand status positioning associated with (non)monetary actions on consumers' inferences about the action and the actor. All data files can be found online at (https://https://bit.ly/3pYFxgK).

3.2 Study 1 - (Non)Monetary sustainable behavior and environmental contribution

This study explores consumers' perceptions about (non)monetary sustainable behaviors. This study aims to test the proposition that a non-monetary action triggers more positive perceptions compared to a monetary action (H1a). Further, it is expected that this positive inference is mediated by the positive inference associated with non-monetary compared to monetary sustainable actions (H2a). Also, past research associates green consumption with higher status perception (Sekhon & Soule, 2020) and that observers perceive actions of consumption reduction as associated with lower socioeconomic status (Brooks & Wilson, 2015; De Nardo et al. 2017). Therefore, it is also investigated if socioeconomic status mediates the impact of monetary sustainable behavior on consumers' inferences about these actions.

3.2.1 Participants and design

Two hundred eleven Brazilian participants were recruited on Facebook to participate in this study in exchange for a \$1.00 donation for the RedCross, a non-profit institution that mobilizes volunteers to prevent and alleviates human suffering in emergency situations. Previous research has shown that consumers in Brazil and the U.S. share similar perceptions about consumption(Maciel, da Rocha & da Silva, 2013). Seventeen participants were excluded for not passing the attention check. Therefore, the final sample was composed by one hundred ninety-four participants (n= 194, 66% female, M_{age} = 33.4, SD = 9.94). The experiment employed a single factor (sustainable action: non-monetary vs. monetary) between-subjects design. Respondents were randomly exposed to one of the two conditions.

3.2.2 Procedure

All respondents read the study disclaimer. After that, respondents read a schedule for a person named Patricia. The schedule was described as a typical Saturday and they were asked to evaluate Patricia based on her activities. The activities description was adapted from Sekhon and Soule (2020). The non-monetary behavior was described as Patricia repairing an old jacket, and the monetary behavior was described as Patricia buying a new jacket from a pro-environmental collection. For the non-monetary sustainable behavior condition, participants read "Patricia is 30 years old, has a job, and lives in the same city you live. Last Saturday, right after woke up, she did her workout routine, ate breakfast, and paid bills. After lunch, Patricia went to a mall to pick up her jacket, which was in a clothing repair service. Patricia owns this jacket for some while and decided to repair it to extend its use for more time.". For the monetary sustainable condition, participants read "Patricia is 30 years old, has a job, and lives in the same city you live. Last Saturday, right after woke up, she did her workout routine, ate breakfast, and paid bills. After lunch, Patricia is 30 years old, has a job, and lives in the same city you live. Last Saturday, right after woke up, she did her workout routine, ate breakfast, and paid bills. After lunch, Patricia went to a mall to buy a new jacket and chose one from a sustainable collection. The main fabric is eco-friendly, made with a water-less innovation process, and made with organic cotton."

After reading the schedule, all respondents rated the measure related to the positive inferences regarding the sustainable action. In this study perceived environmental contribution of the sustainable action performed by Patricia is measured in two items "Paty's decision to repair her jacket (to buy a new jacket) has a positive impact to the environment", on a seven-point Likert scale (1 =No impact at all to 7 = Very large impact), based on Hoogendoorn et al. (2019), and "Paty's decision to repair her jacket (to buy a new jacket) makes a difference for the environment", on a seven-point Likert scale (1 =No difference at all to 7 = Very large difference). Following this measure, participants indicated Paty's perceived morality (Hoogendoorn et al., 2019) using two items on a seven-point semantic differential scale "1 - Hypocrite to 7 = Moral" and "1 = Selfish to 7= Altruistical". Participants also rated perceived socioeconomic status of the actor performing the sustainable action, measured using five items on a seven points scale, adapted from Sekhon and Soule (2020). Product quality was also measured using one item on a seven-point scale (1- Very low quality to 7 – Very high quality). Respondents also answered one item measuring environmental consciousness, "Patricia cares about the environment" on a seven-point scale

(1 = Not at all to 7 = A lot), previously used by Sekhon and Soule (2020). Product quality and environmental consciousness. As an attention check, participants were asked to describe what Patricia had done at the mall. Finally, demographic questions were measured. After that, participants were thanked and debriefed. For detailed description, please see Appendix A.

3.2.3 Results

An index from the average of two items was created to test for environmental contribution ($\alpha = .815$). Independent samples *T*-tests revealed that Patricia's action was perceived having more environmental contribution when a non-monetary action was performed than when the monetary action was performed ($M_{non-monetary}= 5.77$, SD = 1.35; $M_{monetary}= 4.80$, SD = 1.72; t(192) = -4.339, p < .00). These results show that non-monetary sustainable action generates higher positive perceptions of environmental contribution than monetary sustainable action, thus confirming H1a.

Results also show that morality ($\alpha = .879$) was also higher for the non-monetary condition than for the monetary condition ($M_{non-monetary} = 5.45$, SD = 1.18; $M_{monetary} = 5.00$, SD = 1.25; t(192) = -2.591, p < .01). However, perceived socioeconomic status ($\alpha = .810$) was higher for the monetary condition than for the non-monetary condition ($M_{monetary} = 3.95$, SD = 1.12; $M_{non-monetary} = 3.42$, SD = .95; t(192) = 2.56, p < .00).

The same independent samples *T*-tests were conducted to check for perceived quality and environmental consciousness to control for possible additional influence on the main predictions. There was no difference on product quality perception ($M_{nom-monetary}$ = 5.36, SD = 1.19; $M_{monetary}$ = 5.37, SD = 1.39; t(192) = -.182, p = .98) nor for environmental consciousness ($M_{monetary}$ = 5.16, SD = 1.73; $M_{non-monetary}$ = 4.97, SD = 1.80; t(192) = .740, p = .46). Since effects regarding these control variables were not found, they will not be considered in further analyses. These results are summarized in Table 1. Also, see Appendix B for detailed results for the Exploratory Factor Analysis, the reliability test for environmental contribution, morality, and socioeconomic status variables, as well as the correlation between all measured variables.

Sustainable action			
Non-monetary	Monetary	t(192)	p-value
(n=99)	(n=95)		
M(SD)	M(SD)		
5.77 (1.35)	4.80 (1.72)	-4.399	<i>p</i> < .00
5.45 (1.18)	5.00 (1.25)	-2.591	<i>p</i> < .01
3.42 (.95)	3.94 (1.12)	3.547	<i>p</i> < .00
5.36 (1.19)	5.37 (1.39)	0.740	<i>p</i> = .46
4.97 (1.80)	5.16 (1.73)	0.026	<i>p</i> = .98
	Sustainable Non-monetary (n=99) M(SD) 5.77 (1.35) 5.45 (1.18) 3.42 (.95) 5.36 (1.19) 4.97 (1.80)	Sustainable action Non-monetary Monetary (n=99) (n=95) M(SD) M(SD) 5.77 (1.35) 4.80 (1.72) 5.45 (1.18) 5.00 (1.25) 3.42 (.95) 3.94 (1.12) 5.36 (1.19) 5.37 (1.39) 4.97 (1.80) 5.16 (1.73)	Sustainable actionNon-monetaryMonetary $t(192)$ $(n=99)$ $(n=95)$ $t(192)$ $M(SD)$ $M(SD)$ -4.399 $5.77 (1.35)$ $4.80 (1.72)$ -4.399 $5.45 (1.18)$ $5.00 (1.25)$ -2.591 $3.42 (.95)$ $3.94 (1.12)$ 3.547 $5.36 (1.19)$ $5.37 (1.39)$ 0.740 $4.97 (1.80)$ $5.16 (1.73)$ 0.026

Table 1. Results of Study 1 (N = 194)

Mediation analyses

Further, it was investigated if morality would mediate the impact of sustainable action on judgments about the environmental contribution. The test for the mediating effect of morality through the PROCESS macro on SPSS (model 4; 10,000 samples; Hayes, 2018, 95% confidence interval). Non-monetary sustainable action was coded as 1 and monetary sustainable action was coded as 0. Since socioeconomic status plays a role on the relation between sustainable action and consumers' judgments, both morality and socioeconomic status were included together as mediators. See Figure 1 for the visual representation of the model tested.



Figure 1. Mediation Model - Results for Study 1 (N = 194)

Results show that sustainable action influences morality ($\beta = .4545$, CI = .1085 to .006), and that sustainable action is significantly associated with environmental contribution ($\beta = .7396$, CI = .3193 to 1.1598). Furthermore, morality is significantly associated with environmental contribution ($\beta = .5218$, CI = .3570 to .6867). The expected indirect effect of the mediation of morality was positive ($\beta_{morality} = .2372$, CI = .0600 to .4490). For socioeconomic status as mediator, the indirect effect of perceived social status was not significant ($\beta_{status} = -.0093$, CI = -.0714 to .0592). Overall, these results confirm H2a.

3.2.4 Discussion

Study 1 shows that consumers performing non-monetary (vs. monetary) sustainable actions are perceived as more moral, which in turn, takes to a more positive inference about environmental contribution. More important, results demonstrate that the social status associated with monetary green consumption is not sufficient to trigger a more positive perception about the contribution of this action to the environment. Although most sustainable behaviors are always judged as virtuous in essence, this study shows that nonmonetary and monetary sustainable actions lead to unique and opposite judgments regarding morality and socioeconomic status about the actor who performed the action. Interestingly, morality is more important to determine how much an action has a positive contribution to the environment. In addition, there was no evidence of influence on product quality (buy a new green jacket vs. repair an old jacket) nor on environmental consciousness.

In the next study, some of limitations of study 1 are addressed and the robustness of previous findings is further investigated. It might be argued that the scenario would be responsible for the effects to emerge. Therefore, the next study uses a different scenario, not involving a fashion product purchase/repair. Also, study 2 examines additional inferences consumers make about non(monetary) sustainable actions, including evaluations not only about the contribution of the action to the environment, but also about the person who performed the sustainable behavior.

3.3 Study 2 – (Non)monetary sustainable behaviors and positive perceptions

Using a different scenario, study 2 aims to replicate the prediction that non-monetary sustainable behavior triggers more positive judgments about the action, compared to monetary sustainable actions (H1a). This research also extends the measures of the dependent variable by not only investigating how individuals evaluate the potential contribution of the (non)monetary sustainable behavior, but also including a measure of the actor's reputation for performing this action (H1b). Particularly, it is examined how these actions trigger perceptions about moral elevation (i.e., admiration) by observers. This study also shows further evidence that morality perceptions mediate this effect (H2a and H2b). Finally, by testing if visibility, greenness, and actor motivation of the behavior would influence the research predictions, study 2 seeks to rule out other alternative explanations.

3.3.1 Participants and design

One hundred third-four participants (n= 134, 59% female, M_{age} = 41.5, SD = 14.69) were recruited on M-turk to participate in this study in exchange for a small payment. All participants that failed the attention check had their pitch rejected. The experiment employed a single factor (sustainable action: non-monetary vs. monetary) between-subjects design. Respondents were randomly exposed to one of the two conditions.

All respondents read the study disclaimer. After that, respondents read a statement asking to think about the action described and the person who performed it. They read "Think about the behavior described below. Take a moment to imagine how this behavior is performed and about the person who performs it". After that, participants read the condition scenarios. In the non-monetary sustainable action condition, participants read "*A person who decides walking, pedaling, or taking rides instead of driving.*". For the monetary sustainable condition, participants read "*A person who decides to buy an electric car.*" Following, respondents wrote what they think about the action and the person who performed the behavior. For detailed description, please see appendix F.

After, all respondents rated the measure related to the positive perceptions regarding the sustainable action. Perceived environmental contribution of the sustainable action was measured in two items "contributes to the environment", and "is relevant to the environment" on a seven-point Likert scale (1 =Not at all to 7 = A lot), similar to study 1. Following this measure participants rated moral elevation, indicating how much they would feel inspired, awe, motivated, and admired by the action (1= Strongly disagree to 7 = Strongly agree), adapted from Aquino et al. (2011) and Freeman et al. (2009). Next, morality was measured using four items (i.e. moral, ethical, caring, and kindhearted) based on Olson et al. (2016). In Study 1, morality was measured using a two items scale (based on Hoogendoorn et al. (2019). In this study, the measure proposed by Olson et al. (2016) was preferred due to higher reliability index. Similar to study 1, perceived socioeconomic status of the actor performing the sustainable action was measured based on Sekhon and Soule (2020). The perceived costs associated with the sustainable actions were measured for manipulation check, in two items:

"This behavior would involve higher monetary costs for me" and "This behavior would be too time-consuming for me", adapted from Diekmann and Preisendorfer's (2003) and Tobler et al. (2012). Social visibility, environmental motivation, and greenness of the behavior served as control measures. Participants answered one item measuring social visibility, on a seven-point scale (1- Not visible at all to 7 = Extremely visible), adapted from Bricks et al. (2017). Environmental motivation was measured in one item "How motivated by conscious consumption and benefits to the environment this person is", on a seven-point scale (1 = Not at all to 7 = Extremely). Greenness was measured in five items (i.e "Deserves to be labeled as environmentally friendly"), on a seven-point scale (1 = Not at all to 7 = Extremely), previously used by Gershoff and Frels (2015). Two attention check questions were measured, based on Peer et al. (2014). Finally, demographic questions were measured. After that, participants were thanked and debriefed. Appendix C shows the Exploratory Factor Analyses, reliability tests, as well as the correlation between all measured variables used in this study.

3.3.3 Results

Independent samples *T-t*ests were conducted testing the two variables related to nonmonetary and monetary costs associated to sustainable actions. The non-monetary action was perceived as having more non-monetary costs associated when a non-monetary action was performed than when the monetary action was performed ($M_{non-monetary}$ = 5.05, SD = 1.88; $M_{monetary}$ = 3.77, SD = 1.63; t(132) = - 4.199, p < .00). Reverse results were found for monetary costs associated measure. The monetary action was perceived as having higher monetary costs as compared to the non-monetary action ($M_{monetary}$ = 5.49, SD = 1.21; M_{non-} monetary = 2.61, SD = 1.65; t(132) = 11.571, p < .00).

The same independent samples *T*-tests were conducted to check for social visibility, environmental motivation, and greenness to control for possible additional influence on our predictions. For social visibility of the action as an outcome, the sustainable actions lead to same perceptions ($M_{non-monetary}$ = 5.67, SD = 1.20; $M_{monetary}$ = 5.46, SD = 1.16; t(132) = -1.046, p = .29). Also, there is no significant difference on the perception of environmental motivation of the actor who performed the action ($M_{monetary}$ = 5.49, SD = 1.21; $M_{non-monetary}$ = 5.27, SD = 1.48; t(132) = .944, p = .37). An index from the average of five items was created to test for greenness (α = .955). Non-significant effect was found for greenness perception ($M_{non-monetary}$ = 6.15, SD = .99; $M_{monetary}$ = 5.78, SD = 1.33; t(132) = -1.804, p = .07). Since any effects regarding these control variables were found, they will not be considered in further analyses.

Hypotheses Tests

The four items were averaged to form an index of moral elevation ($\alpha = .932$). Independent samples *T*-tests revealed that non-monetary sustainable actions triggered higher moral elevation compared to the monetary action ($M_{non-monetary}= 5.92$, SD = 1.60; $M_{monetary}=$ 4.10, SD = 1.66, t(132) = -2.904, p < .00). The two items of environmental contribution were also averaged to from an index ($\alpha = .763$). However, any difference between non-monetary and monetary sustainable actions were found ($M_{non-monetary}= 5.77$, SD = 1.22; $M_{monetary}= 5.69$, SD = 1.30, t(132) = -.369, p = .712, see table 2). These results show that although the action of using alternative transportation instead of driving (a non-monetary sustainable action) triggers higher moral elevation, they perceive no difference in the potential contribution of this action, compared to using an electric car (a monetary sustainable action). Therefore, H1 is only partially corroborated.

The four items measured were averaged to form an index of moralilty ($\alpha = .907$). Results show that morality was higher for the non-monetary condition than for the monetary condition ($M_{non-monetary}$ = 5.85, SD = .87; $M_{monetary}$ = 5.48, SD = 1.26; t(132) = -1.998, p < .05). Perceived socioeconomic status index was created by avering the five items measured ($\alpha =$.880) was higher for the monetary condition than for the non-monetary condition ($M_{monetary}$ = 4.80, SD = 1.31; $M_{non-monetary}$ = 3.71, SD = 1.15; t(132) = 5.052, p < .00). Table 2 summarizes these results.

Sustainable action				
Measure	Non-monetary	Monetary	t(132)	p-value
	(n=64)	(n=70)		
	M(SD)	M(SD)		
Moral Elevation	5.92(1.60)	4.10 (1.66)	-2.904	<i>p</i> < .00
Environmental Contribution	5.77 (1.22)	5.69 (1.30)	369	<i>p</i> = .71
Morality	5.85 (.87)	5.48 (1.26)	-1.998	<i>p</i> < .05
Socioeconomic Status	3.71 (1.15)	4.80 (1.31)	5.052	<i>p</i> < .00
Social visibility	5.67 (1.20)	5.46 (1.16)	-1.046	<i>p</i> = .29
Environmental Motivation	5.27 (1.48)	5.29 (1.21)	.944	<i>p</i> = .37
Greenness	6.15(.99)	5.78(1.33)	-1.804	<i>p</i> = .07

Table 2. Results for study 2 (N=134)

Further, it was investigated if morality would mediate the impact of sustainable action on judgments about moral elevation and environmental contribution. The test for the mediation effect of morality through the PROCESS macro on SPSS (model 4; 10,000 samples; Hayes, 2018, 95% confidence interval). Non-monetary sustainable action was coded as 1 and monetary sustainable action was coded as 0. Again, together with morality, socioeconomic status was included as a mediator to investigate if the monetary sustainable action would trigger more positive judgments about the actor because of the more positive signaling associated with socioeconomic status.

For moral elevation as dependent variable, the expected indirect effect of the mediation of morality was positive ($\beta_{morality} = .2396$, CI = .0066 to .5205). For socioeconomic status as a mediator, the indirect effect of perceived social status was also significant ($\beta_{status} = .4197$, CI = -.7630 to -.1486). For environmental contribution, the same results were found. The indirect effect of the mediation of morality was positive ($\beta_{morality} = .1843$, CI = .0049 to .3916). For socioeconomic status as a mediator, the indirect effect of perceived social status was also significant ($\beta_{status} = .2667$, CI = -.5308 to -.0511). See table 3 for detailed results.

Variable	Relation	Effect	LLCI	ULCI
Moral Elevation	Total	.8219	.2621	1.3817
	Direct	1.0019	.4753	1.5285
	Indirect Morality	.2396	.0116	.5037
Environmental Contribution	Indirect Socioeconomic	4197	7544	1444
	IV – Morality	.3737	0021	.7494
	IV – Socioeconomic status	-1.0813	-1.5046	6579
	Morality - DV	.6413	.4235	.8591
	Socioeconomic status- DV	.3881	.1948	.5814
	Total	.0806	3516	.5127
	Direct	.1630	2532	.5793
	Indirect Morality	.1843	.0049	.3916
	Indirect Socioeconomic	2667	5308	0511
	IV – Morality	.3737	0021	.7494
	IV – Socioeconomic status	-1.0813	-1.5046	6579
	Morality - DV	.4932	.3210	.6653
	Socioeconomic status- DV	.2467	.0939	.3995

Table 3.Mediation model – Study 2 (N=194)

These results show that although there was no direct effect of (non)monetary sustainable behavior on perceived environmental contribution, this effect emerged through the indirect effect of morality. Also, in study 2 there is initial evidence that socioeconomic status may also explain when monetary sustainable actions trigger more positive evaluations about the contribution of the action and also about the actor. Although we still need further evidence, it is possible that some sustainable actions associated with efficiency in sustainable consumption may also have a positive impact on consumers' judgments.

3.3.4 Discussion

Study 2 has three main findings. First, it partially replicates study 1 by showing a direct effect of (non)monetary sustainable behavior on consumers' evaluations. Study 2 finds this effect is observed by the more positive moral elevation associated with non-monetary sustainable behavior. However, there was no direct evidence that these (non)monetary sustainable behaviors differently impact perceptions about environmental contribution. Second, study 2 shows that morality shapes the impact of (non)monetary sustainable actions on perceptions of both moral elevation and environmental contribution. Third, there was also initial evidence that socioeconomic status shapes the direct effect in an opposite direction. Monetary sustainable actions are associated with higher socioeconomic status, which in turn triggers more positive judgments of moral elevation and environmental contribution. This additional effect will be further investigated in subsequent studies.

This study also ruled out possible interferences in these results. Previous research shows that virtuous public behaviors can signal about one's reputation (Griskevicius et al, 2010; Guo et al., 2020; Karlan & McConnell, 2014; Simpson et al., 2018). For instance, Bird and Smith (2005) found that when an audience can observe a virtuous behavior, they infer a signal of self-sacrifice for public interest. The results showed there the two sustainable actions were equally impacted by social visibility. Also, there were no differences on greenness perception nor on pro-environmental motivation.

Besides these findings, one potential limitation of the two previous studies is that two different situations were compared. In study 1, the action of buying a green product was compared to the action of repairing an owned product. In study 2, the alternative
transportation was compared with buying an electric car, which may represent unbalanced scenarios. Therefore, the next study will have a unique sustainable behavior, manipulating the (non)monetary costs associated with these actions. Study 3 investigates the consistency of the findings by exploring the intensity of (non)monetary costs associated with sustainable behaviors. The influence of morality on positive inference outcomes may be contingent to the intensity of costs associated with the sustainable action. In addition, study 3 will measure a third positive evaluation, image perception.

2.4 Study 3 – (Non)Monetary Sustainable Behaviors and Intensity of Associated Costs

This study further explores how the intensity of (non)monetary sustainable actions impacts consumers' evaluations. It is expected that a sustainable behavior associated with high non-monetary costs generates the highest positive inferences. Furthermore, it is also expected that morality shapes this effect.

3.4.1 Participants and design

A total of 172 adults were recruited on Amazon Mechanical Turk (M_{age} = 39, 50.3% male) and completed the study in return for a small payment. The experiment was available only to participants with IP addresses from the United States. The experiment employed a 2

(sustainable behavior: non-monetary vs. monetary) by 2 (cost intensity: high vs. low costs), between-subjects design. Respondents were randomly assigned to one of the four conditions.

3.4.2 Procedure

All participants read the study disclaimer. After that, they read a typical Saturday list of activities for a person named Robert and were asked to evaluate Robert based on his activities, which include buying organic food and groceries. The differences across the four sustainable behavior between-subjects conditions were the intensity of the costs associated with the non-monetary and monetary sustainable actions. The low-cost non-monetary sustainable condition was described as Robert buying organic food and groceries in a shop very close to his house, where he could finish his shopping quickly and easily. The high-cost non-monetary sustainable condition was described as Robert buying organic food and groceries in a once-a-week big farmer's market, where it is hard and time-consuming to finish his shopping. For the low-cost monetary condition, Robert buys his organic food and groceries in a shop with local suppliers' agreements and prices similar to the non-organic counterparts. For the high-cost monetary condition, Robert was described as buying his organic food and groceries with prices, on average, 30% more expensive compared to nonorganic counterparts.

For the low-cost non-monetary condition, participants read "Robert easily found an organic food and grocery shop very close to his house. Quickly, he shops, goes back home, and unpacks his groceries.". In the high-cost non-monetary condition, it read "After searching a lot for a good place to buy organic food, Robert only found a once a week farmer's market with organic food and grocery. This farmer's market is large, Robert needs to walk a lot in the market. It is hard and time-consuming for him and he spends many hours to shop, go back home, and unpack his groceries." For the low-cost monetary condition, participants read "Robert found an organic food and grocery shop with local suppliers agreements. The prices of these organic products are similar to the non-organic counterparts.". Participants in the high-cost monetary condition read "Robert found an organic food and grocery shop with local suppliers agreements. On average, the prices of these organic products are 30% more expensive compared to non-organic counterparts."

After reading the description, all respondents rated the measures regarding positive perception about the action. First, the same two items of environmental contribution used in study 2, were answered. Following, moral elevation, also similar to study 2, in a four item scale was measured. Image perception was measured with three items on a seven-point semantic differential scale "1 - Very bad to 7 - Very good", "1 - Very unfavorable to 7 - Very favorable" and "1 -Very negative to7 – Very positive". Next, morality was measured using the same four items based on Olson et al. (2016) used in study 2. Similar to studies 1 and 2, perceived socioeconomic status was measured based on Sekhon and Soule (2020). The perceived costs associated with the sustainable actions were again measured for manipulation check, adapted from Diekmann and Preisendorfer's (2003) and Tobler et al. (2012) as in the previous study. Social visibility, environmental motivation, greenness, and purchase frequency of the organic food served as control measures. Participants answered one item measuring social visibility, on a seven-point scale (1- Not visible at all to 7 - Extremely visible), adapted from Bricks et al. (2017). Environmental motivation was measured in one item "How motivated by conscious consumption and benefits to the environment this person is", on a seven-point scale (1 - Not at all to 7 - Extremely). Greenness was measured in five items (i.e "Deserves to be labeled as environmentally friendly"), on a seven-point scale (1 -Not at all to 7 - Extremely), previously used by Gershoff and Frels (2015). Purchase frequency of the organic food was measured in one item, "Have you performed this behavior within the past 6 months or more?", on a seven-point scale (1- Certainly not to 7 - Certainly yes). Again, two attention check questions were measured, based on Peer et al. (2014). Finally, demographic questions were measured. After that, participants were thanked and debriefed. For measures details, please see Appendix A. Appendix D shows the Exploratory Factor Analyses, reliability tests, as well as the correlation between all measured variables used in this study.

3.4.3 Results

A two-way ANOVA was conducted with sustainable behavior and cost intensity as between-subject factors and the non-monetary cost associated with the action item as dependent variable to the for the manipulation check of non-monetary costs. As expected, there was a significant effect of cost intensity (F(1, 168) = 13.157, p < .00, $\eta p^2 = .073$). Also, there was a significant interaction effect (F(1, 168) = 10.143, p < .00, $\eta p^2 = .057$). No main effect of sustainable behavior was found (F(1, 168) = .685, p = .409).

Participants in the high intensity condition rated shopping organic food and groceries as having higher non-monetary costs associated (i.e. time consuming) when the nonmonetary sustainable action was performed compared to when the monetary sustainable action was performed ($M_{non-monetary} = 5.12$, SD = 1.59; $M_{monetary} = 4.09$, SD = 1.77, F(1,168) = 8.242, p < .00 $\eta p^2 = .047$). Participants in the low intensity condition did not differ in their perception of non-monetary costs ($M_{non-monetary} = 3.37$, SD = 1.64; $M_{monetary} = 3.98$, SD = 1.81, F(1, 168)= 2.715, p = .10). Within the non-monetary sustainable condition, participants in high intensity of costs rated shopping organic food and groceries as having higher nonmonetary costs associated than those in the low intensity condition $(F(1, 168)=23.227, p < .00, \eta p^2 = .121)$. Whitin the monetary sustainable condition, no difference was found (F(1, 168)=.098, p=.755)

Another two-way ANOVA was conducted to test the manipulation check for the monetary costs associated with the sustainable action. Again, as expected, a significant effect was found (F(1, 168) = 20.826, p < .00, $\eta p^2 = .110$). There was a significant interaction effect (F(1, 168) = 17.989, p < .00, $\eta p^2 = .097$). No main effect of sustainable behavior was found (F(1, 168) = .067, p = .796).

Participants in the high intensity of costs condition rated shopping organic food and groceries as having higher monetary costs associated when the monetary sustainable action was performed compared to when the non-monetary sustainable action was performed ($M_{monetary} = 5.96$, SD = 1.04; $M_{non-monetary} = 5.09$, SD = 1.32, F(1,168) = 8.121, p < .00, $\eta p^2 = .046$). Participants in the low intensity condition rated monetary costs higher in the non-monetary condition compared to monetary condition ($M_{non-monetary} = 5.02$, SD = 1.33; $M_{monetary} = 4.05$, SD = 1.88, F(1, 168) = 8.894, p = .00). Within the monetary sustainable condition, participants in high intensity rated shopping organic food and groceries as having higher monetary costs associated than those in the low intensity condition (F(1, 168) = 38.722, p < .00, $\eta p^2 = .187$). Within the non-monetary sustainable condition, no difference was found (F(1, 168) = .052, p = .820)

Additional analysis was run to check for social visibility, environmental motivation, greenness, and purchase frequency to control for possible additional influence on our predictions. For the social visibility item, the results showed no significant effects ($F_{intensity}(1, 168) = .406, p = .525$; ($F_{sustainable behavior}(1, 168) = .690, p = .407$), ($F_{interaction}(1, 168) = .369, p = .544$). Same pattern was found for environmental motivation (($F_{intensity}(1, 168) = .884, p = .544$).

.348; ($F_{sustainable behavior}(1, 168) = .445, p = .506$), ($F_{interaction}(1, 168) = .242, p = .623$). For the greenness items index ($\alpha = .942$) no significant effect were found ($F_{intensity}(1, 168) = .225, p = .636$; ($F_{sustainable behavior}(1, 168) = .198, p = .657$), ($F_{interaction}(1, 168) = .125, p = .725$). Finally, for purchase frequency as an outcome, again no significant effects were found ($F_{intensity}(1, 168) = .329$; ($F_{sustainable behavior}(1, 168) = .526, p = .469$), ($F_{interaction}(1, 168) = 3.454, p = .065$). Since we have not found any effects regarding these control variables, we will not consider them in further analyses.

Hypotheses Tests

<u>Moral Elevation</u>: The four items were averaged to form an index of moral elevation $(\alpha = .932)$. A two-way ANOVA revealed a significant interaction effect between sustainable action conditions and intensity of costs ($F_{interaction}(1, 168) = 8.048, p < .00, \eta p^2 = .046$). No main effects were found ($F_{sustainable behavior}(1, 168) = 2.716, p = .101; F_{intensity}(1, 168) = .183, p < .00, \eta p^2 = .001$).

Within the non-monetary sustainable actions, participants did not perceive difference between high and low intensity of costs conditions (F(1, 168)= 2.904, p = .09). However, within the monetary sustainable actions, participants in the high intensity of costs rated higher moral elevation than those in the low intensity of costs (F(1, 168)= 5.324, p < .02, $\eta p^2 =$.031). See figure 2.



Figure 2. Moral elevation as a function of (non)monetary sustainable actions and intensity of costs (Study 3)

High costs associated with non-monetary sustainable action triggered higher moral elevation compared to the high monetary condition ($M_{non-monetary}$ = 5.09, SD = 1.55; $M_{monetary}$ = 3.98, SD = 1.171, f(1, 168) = 10.297, p < .00, ηp^2 = .058). There was no significant difference when low costs are associated with non-monetary compared to when low costs are associated with monetary compared to when low costs are associated with monetary = 4.50, SD = 1.64; $M_{monetary}$ = 4.79, SD = 1.52, f(1, 168) = .691, p = .407). Finally, these results confirm that compare to monetary sustainable actions, the higher non-monetary costs associated with sustainable action higher are positive inferences about moral elevation. H1b is corroborated.

<u>Image Perception</u>: The three items of image perception were also averaged to from an index ($\alpha = .887$). A Two-way ANOVA revealed no interaction effect between sustainable

behavior and intensity of costs ($F_{interaction}$ (1, 168) = 2.269, p = .134). There is a significant main effect of sustainable behavior ($F_{sustainable \ behavior}(1, 168) = 9.157$, p < .00, $\eta p^2 = .052$). No main effect of intensity of costs was found $F_{intensity}(1, 168) = 2.269$, p = .134).

Within the non-monetary sustainable actions, participants did not perceive difference between high and low intensity of costs conditions (F(1, 168)= .000, p = 1). However, within the monetary sustainable actions, participants in the high intensity of costs rated higher moral elevation than those in the low intensity of costs (F(1, 168)= 4.534, p < .03, $\eta p^2 = .020$). Once more, the higher non-monetary costs associated with sustainable action higher are positive inferences about image perception, confirming H1c.

Again, between the high intensity of costs condition, non-monetary sustainable action showed higher image perception mean than monetary sustainable action ($M_{non-monetary}$ = 5.76, SD = 1.04; $M_{monetary}$ = 4.93, SD = 1.38, (F(1, 168)= 10.516, p < .00, $\eta p^2 = .059$). In the low associated costs condition, non-monetary sustainable action showed the higher mean than monetary sustainable action ($M_{non-monetary}$ = 5.76, SD = 1.01; $M_{monetary}$ = 5.48, SD = 1.32, (F(1, 168)= 1.128, p = .290). See figure 3.



Figure 3. Image perception as a function (non)monetary sustainable actions and intensity of costs (Study 3)

<u>Environmental Contribution</u>: The two items of environmental contribution were also averaged to form an index ($\alpha = .861$). However, any interaction or main effects were found ($F_{interaction}$ (1, 168) = .055, p = .815; ($F_{sustainable behavior}(1, 168) = .603, p = .438$); $F_{intensity}(1, 168) = .014, p = .904$). Pairwise analyses did not show any significant difference on mean's conditions (p's >.481), H1a. See figure 4.



Figure 4. Environmental Contribution as a function of (non)monetary sustainable actions and intensity of costs (Study 3)

These results show that although consumers infer the action of shopping organic food and groceries as higher in moral elevation and in image perception when the behavior is hard to perform (high non-monetary sustainable action), they perceive no difference in the potential environmental contribution of this action, compared to when shopping organic food and groceries is associated with monetary action (expensive or not), or when it is easy to perform (low non-monetary action). Therefore, H1 is partially corroborated.

Mediation analyses

<u>Morality</u>: The four items measured were averaged to form an index of morality (α = .806). A Two-way ANOVA revealed no interaction effect between sustainable behavior and intensity of costs ($F_{interaction}$ (1, 168) = .741, p = .391). There is a significant main effect of sustainable behavior ($F_{sustainable \ behavior}(1, 168) = 11.689$, p < .00, $\eta p^2 = .065$). No main effect of intensity of costs was found $F_{intensity}(1, 168) = .324$, p = .570).

High costs associated with non-monetary sustainable action triggered higher morality compared to the high monetary condition ($M_{non-monetary}=5.87$, SD = .83; $M_{monetary}=5.21$, SD =1.14, f(1, 168) = 9.377, p < .00, $\eta p^2 = .053$). There was no significant difference when low costs are associated with non-monetary compared to when low costs are associated with monetary conditions ($M_{non-monetary}=5.65$, SD = .95; $M_{monetary}=5.25$, SD = 1.08, f(1, 168) =3.197, p = .08). Within the non-monetary sustainable actions, participants did not perceive difference in morality between high and low intensity of costs conditions (F(1, 168)= 1.024, p = .313). Non-significant difference was also found within the monetary sustainable actions, participants rated morality equally (F(1, 168)= .042, p = .837).

Socioeconomic status: The five items measured for socioeconomic status were averaged to form an index ($\alpha = .877$). A Two-way ANOVA revealed no interaction effect between sustainable behavior and intensity of costs ($F_{interaction}$ (1, 168) = 1.106, p = .295, ηp^2 = .007). There was no significant main effect of sustainable behavior ($F_{sustainable behavior}(1, 168)$ = .457, p = .500, $\eta p^2 = .003$). The main effect of intensity of costs was significant $F_{intensity}(1, 168) = 8.854$, p < .003, $\eta p^2 = .050$). Participants perceived socioeconomic status equally when the (non)sustainable action were associated with high costs ($M_{non-monetary}$ = 4.95, SD = 1.41; $M_{monetary}$ = 4.26, SD = 1.02, F(1, 168) = 1.528, p = .218). There was no significant difference when low costs were associated with non-monetary compared to when low costs associated with monetary conditions ($M_{non-monetary}$ = 4.60, SD = 1.13; $M_{monetary}$ = 4.53, SD = 1.14, f(1, 168) = .069, p = .793). Within the non-monetary sustainable actions, participants did not perceive difference between high and low intensity of costs conditions (F(1, 168)= 1.853, p = .175). However, within the monetary sustainable actions, participants in the high intensity of costs rated higher socioeconomic status than those in the low intensity of costs (F(1, 168)= 8.100, p < .00, ηp^2 = .046).

Further, it was investigated if morality would mediate the impact of sustainable action on judgments about moral elevation, image perception, and environmental contribution. To test this prediction, five mediation models were conducted for each variable. The test for the mediation effect of morality were conducted through the PROCESS macro on SPSS (model 4; 10,000 samples; Hayes, 2018, 95% confidence interval). As previous studies, socioeconomic status was included as a mediator to investigate if monetary sustainable actions would trigger more positive judgments about the actor because of the more positive signaling associated with socioeconomic status. Previous analyses showed that there was no moderated mediation (model 8; 10,000 samples; Hayes, 2018, 95% confidence interval), therefore, model 4 was run to investigate when morality and/or status would mediate the intensity of (non)monetary costs. More important, it is expected that morality would shape the more positive evaluations associated with high non-monetary costs.

First, the mediation model was conducted using only the high non-monetary and the high monetary sustainable conditions. High non-monetary sustainable action was coded as 1,

and high monetary sustainable action was coded as 0. The results are detailed in table 4. For moral elevation as a dependent variable, the indirect effect of the mediation of morality was positive ($\beta_{morality} = .5152$, CI = .1779 to .9535). For socioeconomic status as a mediator, the indirect effect of perceived social status was not significant ($\beta_{status} = -.1087$, CI = -.3949 to .0562). For image perception, the indirect effect of the mediation of morality was positive ($\beta_{morality} = .4169$, CI = . 1433 to .7423). For socioeconomic status as a mediator, the indirect effect of perceived social status was not significant ($\beta_{status} = -.0410$, CI = -.1733 to .0503). For environmental contribution, the indirect effect of the mediation of morality was positive ($\beta_{morality} = .4173$, CI = .1411 to .7261). The indirect effect of perceived socioeconomic status was not significant ($\beta_{status} = -.0914$, CI = -.2796 to .0498).

Variable	Relation	Effect	LLCI	ULCI
Moral Elevation	Total	1.1041	.4103	1.7980
	Direct	.6977	.0984	1.2970
	Indirect Morality	.5152	.1779	.9535
Image Perception	Indirect Socioeconomic status	1087	3949	.0562
	IV – Morality	.6610	.2351	1.0869
	IV – Socioeconomic status	3132	8358	.2095
	Morality - DV	.7794	.4844	1.0743
	Socioeconomic status- DV	.3472	.1068	.5875
	Total	.8341	.3119	1.3563
	Direct	.4583	0119	.9284
	Indirect Morality	.4169	.1433	.7423
	Indirect Socioeconomic Status	0410	1733	.0503
	IV – Morality	.6610	.2351	1.0869
	IV – Socioeconomic status	3132	8358	.2095
	Morality - DV	.6307	.3994	.8621
	Socioeconomic status- DV	.1310	0575	.3195
Environmental Contribution	Total	.1109	4385	.66.02
	Direct	2150	6792	.2491
	Indirect Morality	.4173	.1411	.7261
	Indirect Socioeconomic Status	0914	2796	.0498
	IV – Morality	.6610	.2351	1.0869
	IV – Socioeconomic status	3132	8358	.2095
	Morality - DV	.6314	.4030	.8598
	Socioeconomic status- DV	.2919	.1058	.4781

Table 4.Mediation model: High Non-monetary vs High Monetary – Study 3 (N= 88)

These results reveal that morality shapes the positive perceptions formed by nonmonetary sustainable actions. Interesting, the indirect effect was significant for environmental contribution perception, although no direct effect was observed. Therefore, hypothesis H2a, b, and c are confirmed for the conditions of high (non)monetary costs.

Additional analysis was run to examine if the intensity of (non)monetary costs would influence consumers evaluations. A mediation model was conducted using only the low nonmonetary and the low monetary sustainable conditions. Low non-monetary sustainable action was coded as 1, and low monetary sustainable action was coded as 0. No indirect effects were found for morality or socioeconomic status (Moral Elevation: $\beta_{morality} = .2498$, CI = -.0113 to .6195; $\beta_{status} = .0365$, CI = -.2574 to .2827; Image perception: $\beta_{morality} = .2133$, CI = -.0204 to .4613; $\beta_{status} = .0110$, CI = -.0863 to .1244; Env. contribution: $\beta_{morality} = .3292$, CI = -.0403 to .6715; $\beta_{status} = .0084$, CI = -.0561 to .1306) as mediators. These results demonstrate that when the disparity between non-monetary and monetary cost associated with a sustainable behavior is mitigated, consumers positive inferences about (non)monetary sustainable action are weakened.

Another mediation model using the non-monetary conditions was conducted. High non-monetary condition as coded as 1, and low non-monetary condition was coded as 0. Again, any indirect effects were found (Moral Elevation: $\beta_{morality} = -.1287$, CI = -.3710 to .0962; $\beta_{status} = -.2076$, CI = -.5576 to .1154; Image perception: $\beta_{morality} = -.1433$, CI = -.3964 to .1060; $\beta_{status} = -.0669$, CI = -.2247 to .0332; Env. contribution: $\beta_{morality} = -.2077$, CI = -.5960 to .1339; $\beta_{status} = -.0788$, CI = -.1967 to .0566).

Finally, the mediation model using only the monetary sustainable conditions was conducted. Low monetary sustainable condition was coded as 1, and the high monetary sustainable condition was coded as 0. Once more, no indirect effects were found (Moral Elevation: $\beta_{morality} = .0217$, CI = -.2261 to .2267; $\beta_{status} = -.0947$, CI = -.2395 to .0077; Image perception: $\beta_{morality} = .0248$, CI = -.2399 to .2926; $\beta_{status} = -.0595$, CI = -.3173 to .1464; Env. contribution: $\beta_{morality} = .0276$, CI = -.2743 to .3353; $\beta_{status} = -.1264$, CI = -.3401 to .0271).

Overall, we only find an indirect effect when high non-monetary is contrasted with high monetary sustainable behavior.

3.4.4 Discussion

Study 3 reaffirms this research findings by showing that the results regarding positive inferences are contingent to the intensity of (non)monetary costs associated with sustainable behaviors. This study reveals that (non)monetary sustainable actions polarize moral judgments: whereas individuals performing high-cost monetary actions are perceived as less moral, those performing high-cost non-monetary actions are perceived as more moral. These judgments shape the more positive evaluations about the actor (moral elevation and image perception) and about the contribution of the action to the environment.

Together, these results contribute with previous research that investigated consumers judgments about sustainable actions (Hoogendoorn et al., 2019; De nardo et al., 2017, Sekhon and Soule, 2020). This study shows that although high-costs monetary sustainable actions trigger higher socioeconomic status perception, the higher costs associated with non-monetary actions are more important to determine more positive evaluations because people associated higher moral behavior with non-monetary costs.

3.5 Study 4 - Brand Status Positioning and Inferences about (Non)Monetary Sustainable Action

Previous research shows that brand positioning influences consumers' judgments about sustainable behaviors (Soule & Reich, 2015; Sekhon & Soule, 2020). In this scenario, the status (high versus low) associated with brands are viewed as opposite ends of a continuum (Hansen & Wanke, 2011; McFerran et al., 2014; Tynan et al., 2010). Low-status brands are present on everyday consumption decisions. These brands are ordinary, commonplace, and inexpensive (McFerran et al., 2014; Tynan et al., 2010; Walasek et al., 2018). Low-status brands have stronger associations with material norms because they represent socially acceptable standards (Gordon et al., 2000). These brands are easily accepted by consumers (Kim and Chung, 1997; Whelan & Hingston, 2018). For instance, compared to high-status brands, when a low-status product brand has a failure, consumers show lower levels of schadenfreude (Pancer et al., 2017). Differently, high-status brands represent conspicuousness, ostentatiousness, and scarcity (Eckhardt et al., 2014; Dubois & Paternault, 1995). By consuming high-status brands, consumers differentiate themselves by showing their capacity to spend resources that are exclusive for few persons (Veblen, 1899). Previous studies show divergent results about the relationship between brand status and sustainability. For instance, while some authors demonstrate that high-status brands may benefit from sustainable consumption reduction (Vilasanti da Luz et al, 2020; Sekhon & Soule, 2020), others show that luxury brands can benefit from motivating consumers to buy more green products (Kang & Sung, 2020). Also, there is also evidence that low-status brands perform better when communicating its sustainability actions (Kong et al., 2021),

while others associate green products made of low-status brands as having lower perceived quality (Kim & Oh, 2020; Kumar et al., 2021).

Given that high and low status brand positioning signal the costs associated with its products, study 4 further examines if the perceived (non)monetary costs associated with a sustainable action influence consumers' evaluations about these actions. For instance, both luxury and mass-market brands are often engaged in sustainable actions (Vilasanti da Luz, et al, 2020). Therefore, this study investigates whether high versus low-status brands associated with (non) monetary sustainable action influence consumers' judgments about these actions.

3.5.1 Participants and design

A total of 259 adults were recruited on Amazon Mechanical Turk (56% male, M_{age} = 37.2) and completed the study in return for a small payment. The experiment was available only to participants with IP addresses from the United States. The experiment employed a 2 (sustainable action: non-monetary vs. monetary) x 2 (brand status positioning: high-status (Gucci) vs. low-status (Walmart), between-subjects design. Respondents were randomly assigned to one of the four conditions.

3.5.2 Procedure

All participants read the study disclaimer. After that, respondents read a schedule for a person named Paty that was described as a typical Saturday and were asked to evaluate Paty based on her activities. The differences across the two sustainable behavior between-subjects conditions were the same used in study 1. Non-monetary sustainable action was described as Paty repairing an old jacket, and the monetary sustainable behavior was described as Paty buying a new jacket from a pro-environmental collection. For the high-status brand condition, participants read that Paty repaired/bought a Gucci jacket. Within the low-status brand condition, participants read that Paty repaired/bought a Walmart jacket. These brands were previously tested by Sekhon and Soule (2020).

For the non-monetary sustainable action condition, participants read "Paty is 30 years old, has a job, and lives in the same city you live. Last Saturday, right after wake up, she did her workout routine, ate breakfast, and paid bills. After lunch, Paty went to a mall to pick up her Walmart/Gucci jacket, which was in a clothing repair service. Paty owns this jacket for some while and decided to repair it to extend its use for more time." Those in the monetary sustainable behavior condition read: "Paty is 30 years old, has a job, and lives in the same city you live. Last Saturday, right after wake up, she did her workout routine, ate breakfast, and paid bills. After lunch, Paty went to a mall to buy a new Walmart/Gucci jacket and chose one from the sustainable collection. The main fabric is eco-friendly, made with a water-less innovation process, and made with organic cotton." For detailed description, please see appendix F.

After reading the schedule, all respondents rated the measure related to the perceived environmental contribution of the sustainable action performed by Paty. This item was also present in the environmental contribution index measured on studies 1 and 3, based on Hoogendoorn et al. (2019): Paty's decision to repair her jacket (to buy a new jacket) has a positive impact to the environment, on a seven-point (1- Totally disagree to 7 - Totally agree). Following this measure, participants also indicated the Paty's perceived morality (Olson et al., 2016) and socioeconomic status (Sekhon and Soule, 2020). As manipulation checks, in two items participants rated how the jacket's brand was a regular/mass-market brand and how the jacket's was a high-status brand on a seven points scale 1 = strongly disagree to 7 = strongly agree). Also, participants rated Walmart and Gucci (along with some filler brands) on familiarity (1 - Not at all familiar to 7 - Very familiar). Moreover, participants rated Walmart and Gucci on environmental consciousness (e.g., About Gucci/Walmart, please rate: 1- Does not care about the environment at all to 7 - Cares a lot about the environment), these items were previous used by Sekhon and Soule (2020). Also, as previous used in study 1, product quality perception also measured using one item "About the jacket quality, please rate", on a seven items points scale (1 - Very low quality to 7 - Very high quality), and environmental consciousness of the actor "Patricia cares about the environment", on a seven items points scale (1 -Not al all to 7 – A lot). Finally, participants answered attention checks and demographic questions. See Appendix A for detailed measures.

3.5.3 Results

A two-way ANOVA was conducted for status brand positioning and (non)monetary action as between-subjects factors, and how much the jacket brand is a popular/mass-market brand as dependent variable. As expected, there was a main effect of status brand positioning (F(1, 255) = 16.698, p < .00, ηp^2 = .06). Overall, participants rated Walmart, the low-status brand, as a more popular/mass-market brand than Gucci, the high-status brand (M_{Walmart} = 5.62, *SD* = 1.23; M_{Gucci} = 4.97, *SD* = 1.44). No other effects were found (F_{sustainable behavior (1, 255) = 2.409, p = .12; F_{interaction} (1, 255) = .01, p = .921).} Another two-way ANOVA with the same predictors was conducted to check how much the jacket brand was a high-status brand. Again, as expected, only the main effect of brand positioning was significant (F(1, 255) = 35.174, p < .00, ηp^2 = .122). Overall, participants rated Gucci as higher-status brand compared to Walmart (M_{Gucci} = 5.60, SD = 1.22; M_{Walmart} = 4.37, SD = 1.92). No other effects were found (F_{sustainable behavior} (1, 255) = .294, p = .588; F_{interaction} (1, 255) = .022, p = .88).

Other two-way ANOVAs were conducted to check for perceived quality, environmental consciousness of each brand, environmental consciousness of the actor, and brand familiarity of each brand to control for possible additional influence on our predictions. For perceived quality, the results showed only a main effect of status brand positioning ($F(1, 255) = 17.03, p < .00, \eta p^2 = .06$). Overall, participants in the high-status brand condition rated the Gucci's jacket as a higher in quality than Walmart ($M_{Gucci} = 5.83, SD = .98$; $M_{Walmart} = 5.19, SD = 1.54$). No main effect of sustainable behavior ($F_{sustainable behavior}(1, 255) = 2.89, p = .09$) or interaction effects emerged ($F_{interaction}(1, 255) = .574, p = .44$). Since this main effect was found, perceived quality, will be examined in further analysis as a covariate.

For the Walmart environmental consciousness item, the results showed no main effects or interaction ($F_{brand positioning}(1, 255) = 2.958, p = .09; F_{sustainable behavior}(1, 255) = 2.394, p = .12; F_{interaction}(1, 255) = .414, p = .52).$ Same pattern was found fot the Gucci environmental consciousness item ($F_{brand positioning}(1, 255) = .662, p = .41; F_{sustainable behavior}(1, 255) = .00, p = .97; F_{interaction}(1, 255) = 1.732, p = .19).$ For the actor environmental consciousness item, the results showed no main effects or interaction ($F_{brand positioning}(1, 255) = .666; F_{interaction}(1, 255) = .019, p = .88).$ For the brand familiarity as an outcome, the results for the Walmart familiarity item showed no main effects or interaction ($F_{brand positioning}(1, 255) = 2.958, p = .09; F_{sustainable behavior}(1, 255) = .019, p = .88).$

2.394, p = .123; $F_{interaction}(1, 255) = .414$, p = .52). Same pattern was found for the Gucci familiarity item ($F_{brand positioning}(1, 255) = 3.590$, p = .06; $F_{sustainable behavior}(1, 255) = .068$, p = .79; $F_{interaction}(1, 255) = 1.524$, p = .21). Since any main effects or interactions regarding these control variables were found, they will not use them in further analyses.

Appendix E shows the Exploratory Factor Analysis, the reliability test for environmental contribution, moral elevation, morality, and socioeconomic status variables, as well as the correlation between all measured variables.

Hypothesis tests

The results of a two-way ANOVA for the environmental contribution perception as dependent variable showed a significant interaction effect ($F_{interaction}(1, 255) = 7.30, p < .00, \eta p^2 = .028$). Also, the main effect of status brand positioning ($F_{brand positioning}(1, 255) = 6.10, p < .01, \eta p^2 = .023$) and the main effect of sustainable behavior ($F_{sustainable behavior}(1, 255) = 6.23, p < .01, \eta p^2 = .024$) were significant. See figure 5.



Figure 5. Environmental contribution as a function of status brand positioning and (non)monetary sustainable action (Study 4)

As expected, participants exposed to the non-monetary sustainable behavior rated environmental contribution perception equally between brand positioning conditions (*F* (1, 255) = .029, p = .86). Participants exposed to the monetary sustainable behavior rated higher environmental contribution when the low-status brand (Walmart)'s jacket was bought than when a high-status brand offered the green product (*F*(1, 255) = 12.69, p < .00; $\eta p^2 = .047$).

Moreover, for participants exposed to the high-status brand (Gucci), those in the nonmonetary sustainable condition rated higher environmental contribution perception than participants in the monetary condition ($M_{non-monetary}$ = 5.66, SD = 1.20; $M_{monetary}$ = 4.78, SD = 1.62; F(1, 255) = 12.90, p < .00, $\eta p^2 = .05$). As expected, for the low-status brand (Walmart), there was no significant difference in the environmental contribution perception between sustainable actions ($M_{non-monetary}$ = 5.62, SD = 1.40; $M_{monetary}$ = 5.66, SD = 1.22; F (1, 255) = .022, p = .88). These results support our prediction that, when a monetary sustainable action is performed, a high-status brand decreases positive inference perceptions.

Because real brands were tested in this study, an ANCOVA was performed including product quality as a covariate. Although a main effect has emerged (F(1, 255) = 20.539, p < .00, $\eta p^2 = .07$), the results remained unchanged. Thus, these possible intervening influences in the present results were ruled out.

Mediation analyses

An index from the average of four items was created to test for morality ($\alpha = .839$). The results of a two-way ANOVA for morality as dependent variable showed only an interaction effect of (non)monetary sustainable action and status brand positioning ($F_{interaction}(1, 255) = 3.715, p < .05, \eta p^2 = 0.014$). No main effects of (non)monetary sustainable behavior ($F_{sustainable behavior}(1, 255) = .365, p = .54$), or status brand positioning were found ($F_{brand positioning}(1, 255) = 1.539, p = .216$).

Within high-status brand positioning, results revealed a more positive perception of morality for the non-monetary compared to the monetary condition with a marginal difference ($M_{Non-monetary} = 5.68 \text{ SD} = 1.05$; $M_{Monetary} = 5.37$, SD = .98, F(1, 255) = 3.059, p = .081). Within low-status brand positioning, results showed no difference on morality perception between monetary and non-monetary conditions ($M_{Non-monetary} = 5.59 \text{ SD} = 1.02$; $M_{Monetary} = 5.76$, SD = .92, F(1, 255) = .919, p = .339). Within the non-monetary sustainable

condition, there was no difference in the morality perception between the high and low-status brand positioning (F(1, 255) = .249, p = .618). Within the monetary sustainable condition, participants in the low-status brand condition judged that buying a high-status brand (Walmart) triggers higher morality compared to buying a low-status brand (F(1, 255) = 4.762, p < .03, $\eta p^2 = .018$). Overall, these results show that buying a low-status brand is perceived as more moral, compared to buying a green high-status brand or performing monetary sustainable actions.

Therefore, it is possible that morality judgments associated with (non)monetary sustainable actions shape how consumers perceive the contribution of these actions to the environment when they are performed for a low versus high-status brand. The test for the moderated mediation effect of morality through the PROCESS macro on SPSS (model 8; 10,000 samples; Hayes, 2018, 90% confidence interval). Non-monetary sustainable behavior was coded as 1 and monetary sustainable behavior was coded as 0. For brand positioning, the codes were 1 for the low-status brand (Walmart) and 0 for the high-status brand (Gucci).

Results showed that brand positioning influences morality ($\beta = .3877$, CI = .1095 to .0651), as well as (non)monetary sustainable action ($\beta = .3099$, CI = .0054 to .6144). Moreover, brand positioning influences environmental contribution ($\beta = .6078$, CI = .2462 to 0.9694) and morality ($\beta = .6845$, CI = .5485 to .8205). Furthermore, the interaction between sustainable action and brand positioning influences morality ($\beta = .4718$, CI = - .8785 to - .651, p < .05).

More important, the index of moderated mediation was significant ($\beta = -.3229$, CI = -.6327 to - .0447). Moreover, the indirect effect of the sustainable behavior on environmental contribution via morality differed at the moderator values. In the high-status brand positioning condition, the indirect effect of morality was significant for the monetary action

condition (β = .2121, CI = .0025 to .4408), showing that morality shapes the more positive impact of non-monetary actions. As expected, the indirect effect was not significant in the low-status brand positioning condition (β = - .1108, CI = - .3048 to .0665).

Table 5. Moderated Mediation model: Low and High -Status Brand - Study 4 (N=256).

Variable	Relation	Effect	LLCI	ULCI
Environmental Contribution	Total	1.1041	.4103	1.7980
	Direct	.6977	.0984	1.2970
	Indirect Morality	.5152	.1779	.9535
	Indirect Socioeconomic status	1087	3949	.0562
	IV – Morality	.6610	.2351	1.0869
	IV – Socioeconomic status	3132	8358	.2095
	Morality - DV	.7794	.4844	1.0743
	Socioeconomic status- DV	.3472	.1068	.5875
	Total	.8341	.3119	1.3563
	Direct	.4583	0119	.9284
	Indirect Morality	.4169	.1433	.7423
	Indirect Socioeconomic Status	0410	1733	.0503
	IV – Morality	.6610	.2351	1.0869
	IV – Socioeconomic status	3132	8358	.2095
	Morality - DV	.6307	.3994	.8621
	Socioeconomic status- DV	.1310	0575	.3195
Environmental Contribution	Total	.1109	4385	.66.02
	Direct	2150	6792	.2491
	Indirect Morality	.4173	.1411	.7261
	Indirect Socioeconomic Status	0914	2796	.0498
	IV – Morality	.6610	.2351	1.0869
	IV – Socioeconomic status	3132	8358	.2095
	Morality - DV	.6314	.4030	.8598
	Socioeconomic status- DV	.2919	.1058	.4781



Figure 6. Moderated mediation model for Study 4 (N=256)

Additional analyses

Additional analyses were conducted to investigate the effect of the perceived socioeconomic status associated with sustainable consumption. An index from the average of five items was created to test for socioeconomic status ($\alpha = .856$). As expected, the results of a two-way ANOVA for socioeconomic status as dependent variable showed only a main effect of brand positioning ($F_{brand positioning}$ (1, 255)= 6.929, p < .00, $\eta p^2 = .026$). No main effects of sustainable behavior ($F_{sustainable behavior}(1, 255) = .983$, p = .323), or interaction effects were found ($F_{interaction}(1, 255) = .496$, p = .482).

For the monetary sustainable action condition, participants in the high-status brand condition showed higher socioeconomic status perception than participants in the low-status brand condition ($M_{Gucci} = 5.21$, SD = .87; $M_{Walmart} = 4.68$, SD = 1.45; F(1, 255) = 5.283, p <.02, $\eta p^2 = .020$). These results support our prediction that, when a monetary sustainable behavior is performed, a high-status brand increases socio-economic status perceptions. As expected, for non-monetary sustainable condition, there were no significant difference in the socioeconomic status perception between the high and low-status brand positioning (M_{Gucci} = 4.94, SD = 1.10; M_{Walmart}= 4.63, SD = 1.46; F(1, 255) = 1.963, p = .16). Within high-status brand positioning and within low-status brand positioning, results of pairwise comparisons did not show significant differences (p's> .243). These results support our prediction that, when a non-monetary sustainable action is performed, socioeconomic status is not impacted by the brand positioning. More important, for the moderated mediation effect of socioeconomic status, results did not reach significant effect (β = .0384, CI = -.0510 to .1450).

3.5.4 Discussion

Although past research shows that sustainable actions are associated with status (Aagerup & Nilsson, 2016; Griskevicius et al., 2010), the results of this study show that when a high-status brand is associated with a monetary sustainable action (e.g. buy a green product), the perceived contribution of this action to the environment is reduced compared to when a non-monetary action is performed by this brand. There is also initial evidence that spending more money on sustainable actions for high-status brands reduces the morality associated with sustainable consumption. However, both monetary and non-monetary actions associated with a low-status brand (Walmart) are perceived as equally benefiting the environment.

Interestingly, this study contributes to the literature on luxury sustainable actions (Sekhon & Soule, 2020; Su et al., 2021) showing that these brands can benefit from non-monetary initiatives of pro-environmental consumption.

4 GENERAL DISCUSSION

This research shows that (non)monetary costs associated with sustainable behaviors impacts observer's inferences about the action and about the actor (H1a, b, and c). Moreover, it shows morality judgments shape these inferences (H2a, b, and c). When individuals perform a sustainable behavior associated with non-monetary costs, observers infer higher environmental contribution, moral elevation, and more positive image perception, compared to when the sustainable action is associated with monetary costs. Because non-monetary actions require more sacrifice and self-investment compared to monetary action, they signal as more moral, which enhances more positive inferences about those who performed a nonmonetary sustainable action.

This research also showed that the higher socioeconomic status associated with monetary sustainable action does not elevate positive inferences about the action. Also, consumers provide more positive evaluations when a high-status brand is associated with a non-monetary action (repairing a jacket) compared with a monetary action (buy a new green jacket). Finally, potential alternative explanations were ruled out by testing for environmental consciousness, environmental motivation, greenness, visibility of the action, product quality, and purchase frequency as control variables.

In general lines, the four studies corroborate the proposed hypotheses. There is a positive impact of non-monetary (versus monetary) sustainable behavior on consumer's perceptions about the action, and this effect is shaped by morality judgments about the actor. Additionally, this work has shown the consistency of the effect for different dependent variables, namely: environmental contribution, moral elevation, and perceived image.

4.1 Theoretical and Practical Implications

Previous research on non-monetary sustainable actions or consumption reduction initiatives, shows conflicting results regarding how these actions signal to others (Lee et al. 2020; Sekhon & Soule, 2020; Muncy & Iyer, 2020). Given that awareness about environmental issues has increased (Huttel et al., 2018), the adoption of reducingconsumption practices as well as the preference for more sustainable options have become more frequent. By investigating how consumers make inferences about (non)monetary sustainable actions, this study contributes to the research on sustainable behavior, costly signaling, morality, and status brand positioning.

This research contributes to the sustainable consumption literature by providing support for positive inferences about non-monetary sustainable behaviors (i.e. reducing consumption actions). The study of the consequences of non-monetary sustainable consumption has been mostly overlooked in previous literature. This research shows that non-monetary sustainable practices have the potential to garner more positive consumer perceptions. Sustainable behaviors associated with non-monetary costs add positive value to the actor and to the action. Understand which mechanisms shapes positive impressions about reducing consumption practices contributes to sustainable consumption literature by showing that people might learn that self-investment and effort is valuable (Inzlicht, Shenhav & Olivola, 2018; Olivola & Shafir, 2018), and become more willing to exert consumption reducing practices.

This research also contributes to the discussion about the role of environmental concern and sustainable behavior practices. For instance, De Nardo et al. (2018) found that consumers perceive green consumption as more motivated by environmental concerns than consumption reduction behaviors. This research shows that environmental concerns and motivations are equally perceived by observers, and do not impact positive evaluations about sustainable actions.

The literature on attribution and on costly signaling theory can also benefit from this research. Past research focuses on consumers' status evaluations of green products (Griskevicius et al., 2010; Atgwal et al., 2019). Nonetheless, this study shows that morality judgment is a fundamental outcome to delineate positive perception about sustainable actions. By showing that actions of sustainable consumption reduction, compared to buying green and eco-efficient products, are associated with more positive signaling through self-investment perceptions, this research provides useful evidence for practitioners and policy makers develop strategies to increase adoption of sustainable behavior that avoid use of resources (Kropfeld et al., 2018; Scott & Weaver, 2018). Therefore, the awareness that current practices of consumption behavior is impracticable (Akenji, 2014; Huttel et al, 2018) encouraging morality judgments rise a way to help to promote socially beneficial behaviors through consumption reduction practices.

Research investigating the relationship between brand positioning and proenvironmental practices can also benefit from this study (Sekhon & Soule, 2020; Su et al., 2021). This research underlines consumer perceptions contrast between low and high-status brands. There is initial evidence that non-monetary sustainable initiatives can equally favor low and high-status brands, while monetary sustainable practices may decrease the positive inferences consumers make The consumption of luxury brands is driven by a desire for status (Saad, 2007; Nelissen & Meijers, 2011). Luxury brands emphasis superiority through resources scarcity, quality, and uniqueness (Kapferer, 2006), which may represent a barrier for sustainable luxury. For instance, Achabou and Dekhili (2013) show that incorporating recycled material in luxury products decreases its preference. However, recent work highlights that consumers may adopt reduce-consumption promoted by luxury brands when they attribute positive perception about the sustainable action. For instance, Sun et al.(2021) demonstrate that luxury brands may nudge reducing-consumption by enhancing the longer lifespan of their products given its quality and durability. Further, Adiguzel and Donatro (2021) demonstrate that upcycled luxury products are preferred, compared to recycled ones, because consumers attribute higher feelings of pride. The present research is in consonance with this more recent research by showing that luxury brands may benefit by more positive morality judgments when non-monetary sustainable behaviors are performed. This research results are counterintuitive, while usually luxury brands are seemed as immoral (Doyle & Moole, 2018; Seo & Buchanan-Oliver, 2019), it is shown the opposite effect. By linking luxury positioning to morality, professionals deviate from associations with hubristic (i.e. arrogant) inferences. Therefore, this research provides initial evidence that, besides status motives, sustainable luxury behaviors may also be motivated by moral values. Low-status brands consumption is driven by every-day decisions, which may lead consumers to be less sensitive to sustainable efforts categorizations (e.g. (non)monetary actions). While some research does not find that sustainability adds measurable value to low-status brands (Lueg, Pederson & Clemmensen, 2013), this research show that moral values are related to lowstatus brands, and practitioners may stimulate both (non)monetary sustainable behaviors.

Given the nature of the behavior investigated, the (non)monetary actions were manipulated regarding a sustainable behavior (buy a green jacket versus repairing an old jacket; driving an electric car versus walking/riding/cycling as transport). However, these actions do not involve the same practice. For instance, although using a public transportation and using an electric car involve a behavior related with transportation, they in fact are two different actions. This can bring serious confounds to the previous findings. For instance, unbalanced scenarios may explain why study 2 does not corroborate hypothesis 1. Study 3 tries to overcome this limitation by manipulating the (non)monetary costs associated with an unique sustainable behavior: buying organic food and groceries. However, given its nature, Study 3 brings other potential limitations. By manipulating cost intensity and nature using only one monetary sustainable action, one may argue that results may puzzle convergent validity of studies 1 and 2. It is hold that study 3 is necessary. This study goal is attained showing that consumers perceive the same sustainable behavior as costly when it includes spending more time to perform, while product price is controlled across scenarios. Nevertheless, in order to expand external validity of the findings, a future study could be conducted manipulating the costs associated with reducing-consumption scenario (e.g., repairing an old jacket, repurposing a product).

Another limitation of this research is that the results were more consistent with the morality mediation model. For the direct effect between (non)monetary sustainable behaviors and environmental contribution did not show significant differences in studies 2 and 3. Previous research has shown that although reducing is objectively more sustainable than green consumption (Nepomuceno & Laroche, 2015; Sekhon & Soule, 2020), consumers have

difficulties in estimating its environmental contribution (de Boer, Scholer & Aiking, 2014). It would be interesting to investigate contingent factors that impact positive perceptions of environmental contribution for non-monetary sustainable practices. Further, moral elevation was shown to be a relevant outcome of (non)monetary sustainable behaviors. A future avenue for research is to investigate other positive emotions such as awe and empathy.

Also, an additional limitation may be imposed to study 1. Participants were recruited on Facebook to participate in exchange for a \$1.00 donation for the RedCross, which reveals a pro-social self to those who voluntarily participated in the survey. One may argue that participants who engage in a task giving their time and money are inclined to make positive evaluations about a sustainable behavior associated with non-monetary costs. However, the other three studies tries to overcome this potential limitation by replicating results with participants recruited on M-Turk in exchange for a small monetary payment. Since, there are evidence that effort for a charitable cause also motivates others to contribute more to that cause (Olivola & Shafir, 2018), future studies could use the compensation for participating in the survey as a dependent variable. For instance, after concluding the survey, respondents could choose between donate this payment to a sustainable institution or get paid. This measure may show how observers are inspired after being exposed to (non)monetary sustainable actions.

Instead, previous studies show that consumers who adopt sustainable practices may feel licensed to spend more resources (Small & Van Dender, 2007; Catlin & Wang, 2013) or that sustainable consumption leads to a leniency judgment (Prada, Rodrigues & Garrido, 2016). Future research could also test if, although inferring positive perception about nonmonetary sustainable behaviors, observers feel licensed to spend more resources, or if they demonstrate bias judgments in unrelated dimensions of sustainable practices. Another future avenue for expanding research results is to investigate other nonmonetary cost that may be associated with sustainable practices. In this research timeconsuming and financial costs were associated with sustainable action. However, nonmonetary sustainable behaviors may include other associated costs, such as convenience. For instance, walking to work in the winter is more inconvenient than walking to work in the spring. Future studies could explore the extending which other non-monetary costs associated with a sustainable behavior signals self-investment and enhances positive perceptions.

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APPENDICES

APPENDIX A - Studies Measures

Positive inferences

Environmental contribution

Studies 1, 3 and 4 – adapted Hoogendoorn et al. (2019)

How much of a positive impact this behavior has on the environment overall? (1 =No impact at all to 7 = Very large impact)

How do you consider that this behavior contributes to the environment (1 = Not at all to 7 = A lot)

Studies 2 and 3

How do you consider that this behavior is relevant to the environment (1=Not at all to 7 = A lot) How do you consider that this behavior contributes to the environment (1= Not at all to 7 = A lot)

Elevation

Studies 2 and 3- Aquino et al. (2011) and Freeman et al. (2009) Thinking about this behavior makes me feel: Inspired. (1 = strongly disagree to 7 = strongly agree) Awe. (1 = strongly disagree to 7 = strongly agree) Admired. (1 = strongly disagree to 7 = strongly agree) Uplifted. (1 = strongly disagree to 7 = strongly agree)

Image Perception

Study 3

How do you evaluate Robert for his action of shopping organic food and groceries: Very Bad/Very Good. (1 = very bad to 7 = very good) Unfavorable/Favorable. (1 = very unfavorable to 7 = very favorable) Very Positive/Very Negative. (1 = very negative to 7 = very positive)

Morality

Study 1 – adapted from Hoogendoorn et al. (2019) 1 = Hypocrite to 7 = Moral 1 = Selfish to 7= Altruistical Studies 2, 3 and 4 – adapted from Olson et al. (2016) This person is: 1 = Unmoral to 7 = Moral 1 = Cruel to 7 = Kindhearted 1 = Uncaring to 7 = Caring 1 = Unethical to 7 = Ethical Perceived Socioeconomic Status (All Studies) - Sekhon & Soule (2020) Has a lot of money. (1 = strongly disagree to 7 = strongly agree) Is respectable. (1 = strongly disagree to 7 = strongly agree) Is rich. (1 = strongly disagree to 7 = strongly agree) Work as an executive. (1 = strongly disagree to 7 = strongly agree) Has high status. (1 = strongly disagree to 7 = strongly agree)

Manipulations Check
Studies 3 and 4 – adapted from Diekmann & Preisendorfer's (2003) and Tobler et al. (2012)
This behavior would involve higher monetary costs ($1 =$ strongly disagree to $7 =$ strongly agree)
This behavior would be too time-consuming $(1 = \text{strongly disagree to } 7 = \text{strongly agree})$
Paty's jacket is from a regular/mass-market brand (1 = strongly disagree to 7 = strongly agree)
Paty's jacket is from a high-status brand (1 = strongly disagree to 7 = strongly agree).
Environmental Motivation (Studies 2 and 3)
How motivated by conscious consumption and benefits to the environment this person is $(1 = Not at all to 7 = Extremely)$
Environmental Consciousness (Studies 1 and 4) – Adapted from Sekhon & Soule
Paty cares about the environment (1 = Not at all to 7 – A lot) This brand: 1 - Does not care about the environment at all to 7 - Cares a lot about the environment)
Greenness (Studies 2 and 3) - Gershoff & Frels (2015)
Is environmentally friendly ($1 = Not$ at all $-7 = Extremely$)
Deserves to be labeled 'environmentally friendly. ($1 = Not at all - 7 = Extremely$)
is a good environmental choice. ($1 = Not at all - 7 = Extremely$)
A person who cares about the environment would be likely to have this behavior. ($1 = Not$ at all $-7 = Extremely$)
How environmentally friendly or green is this behavior? ($1 = Not at all - 7 = Extremely$)
Social Visibility (Studies 2 and 3) – Bricks et al. (2017)
How socially visible you think is this action: that is, how much it can be observed by other people. (1 = Not at all visible to 7 = Extremely visible)
Practice (Study 3)
Have you performed this behavior within the past 6 months or more? (1= Certainly not to 7= Certainly yes)
Product Quality (Study 1 and 4)
1-Very low quality to 7- Very high quality
Demographics (All Studies)
Gender
Age
Educational level
Family Monthly Income

1. EXPLORATORY FACTORIAL ANALYSIS

1.1. Environmental contribution

The two items of the Environmental Contribution index were subjected to Exploratory Factorial analyses with principal components analysis (PCA), using SPSS Version 23. Inspection of the correlation matrix revealed the presence of coefficients of .690. Results revealed satisfactory results, reliability ($\alpha = .815$), explained variance of 84.497%, Kaiser-Meyer-Oklin value was .500, and the Barlett's Test of Sphericity (Bartlett, 1954) reached statistical significance ($X^2 = 123.765$, p < .000), supporting the factorability of the correlation matrix. See table 1 for details.

Table 1. Varimax Rotation of factor analysis for Environmental Contribution (N=194)

Environmental contribution Items	Loadings
has a positive impact on the environment	.919
Contributes to the environment	.919
Explained Variance (%)	84.497
Cronbach's Alpha (α)	.815
КМО	.500
Bartlett's Test of Sphericity	123.765

1.2 Morality

The two items of the Morality scale were subjected to Exploratory Factorial analyses with principal components analysis (PCA), using SPSS Version 23. Inspection of the rotated

component matrix correlation revealed loading of .728. Results revealed satisfactory results, reliability ($\alpha = .843$), explained variance of 86.404%, Kaiser-Meyer-Oklin value was .500, and the Barlett's Test of Sphericity (Bartlett, 1954) reached statistical significance ($x^2 = 144.633$, p < .000), supporting the factorability of the correlation matrix. Items loaded in one single component matrix. See table 2 for details.

Morality Items	Loadings
Moral	.930
Altruistic	.930
Explained Variance (%)	86.404
Cronbach's Alpha (α)	.843
КМО	.500
Bartlett's Test of Sphericity	144.633

Table 2. Varimax Rotation of factor analysis for Morality (N=194)

1.3 Perceived Socioeconomic Status

The five items of the Perceived Socioeconomic Status perception were subjected to Exploratory Factorial analyses with principal components analysis (PCA), using SPSS Version 23. Inspection of the rotated component matrix correlation revealed loading of .177 and above. Results revealed satisfactory results, reliability ($\alpha = .812$), explained variance of 59.006%, Kaiser-Meyer-Oklin value was .772, and the Barlett's Test of Sphericity (Bartlett, 1954) reached statistical significance ($x^2 = 467.804$, p < .000), supporting the factorability of the correlation matrix. Items loaded in one single component matrix. See table 3 for details.

Socioeconomic status	Loadings
Has a lot of money	.893
Has high status	.727
Is respected	.370
Is rich	.922
Work as an executive	.799
Explained Variance (%)	59.006
Cronbach's Alpha (α)	.812
КМО	.772
Bartlett's Test of Sphericity	467.804

Table 3. Varimax Rotation of factor analysis for Perceived Socioeconomic Status (N=134)

1.4 Correlations between variables

Correlations between the several variables were significant and results confirm that all variables are independent. Multicollinearity was not found (r. < 603. or less). The assumption of singularity is also respected in this study. See table 4.

Table 4. Correlations for Study 1 - All Variables (N=194)						
	1	2	3	4	5	
1. Morality	-					
2. Socioeconomic Status	057	-				
3. Environmental Contribution	.442**	068	-			
4. Environmental Conscious- ness	.603**	.039	.341**	-		
5. Product Quality	.285**	.127	.183*	.190**	-	

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Further, the relationship between Environmental Contribution, Morality and Socioeconomic status perception was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. Inspection of the correlation matrix revealed that items correlates at .412 or less, multicollinearity was not found. The assumption of singularity is also respected in this study. See table 5.

	1	2	3	4	5	6	7	8	9
1. Env Contribution_positive impact	_								
2. Env Contribution_contribution	.690**	-							
3. Morality_1	.384**	.412*	-						
4. Morality_2	.319**	.399*	0.728**	-					
5. Status_has high status	109	111	133	090	-				
6. Status_respected	.137	.108	.274**	.211**	.253**	-			
7. Status_rich	085	143*	111	041	.547**	.245**	-		
8. Status_ has a lot of money	062	100	137	057	.533**	.177*	.862**	-	
9. Status_work as an executive	.020	084	149	089	.430**	.191**	.675**	.618**	-
** Completion is similiar to a < 01	1_{avel} (2 t	.:11)							

Table 5. Correlations for Study 1- Principal variables items (N=194)

** Correlation is significant at p<.01 level (2-tailed)

* Correlation is significant at p<.05 level (2-tailed)

All items of the variables used on hypotheses tests were subjected to Exploratory Factorial analyses with principal components analysis (PCA). Varimax rotation showed a component correlation matrix of maximum .384, between Environmental Contribution and Morality. Initial Eigenvalues were 3.101, 2.439, 1.031, rotated Eigenvalues results were 2.971, 1.818, 1.782. Total variance explained of 73.007%, Kaiser-Meyer-Oklin value was .718, and the Barlett's

Test of Sphericity ($x^2 = 814.125$, p< .000). Rotated Component matrix loaded trhee factors. Socioeconomic status load higher in the first factor, Morality items load higher in the second factor, and Environmental Contribution items load higher in the third factor. See table 6.

	С	omponent	
	1	2	3
Status_rich	.917	.043	072
Status_has a lot of money	.895	016	020
Status_work as an executive	.814	084	.072
Status_has high status	.715	.063	149
Status_respected	.328	.623	062
Morality_1	171	.830	.302
Morality_2	102	.810	.277
Env contribution_positive impact	009	.155	.902
Env contribution_contribution	085	.218	.874

Table 6. Rotated Component matrix for study 1 - Principal Variables items (N= 194)

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

1 EXPLORATORY FACTORIAL ANALYSIS 1.

1.1 Environmental contribution

The two items of the Environmental Contribution index were subjected to Exploratory Factorial analyses with principal components analysis (PCA), using SPSS Version 23. Inspection of the correlation matrix revealed the presence of coefficients of .899. Results revealed satisfactory results, reliability ($\alpha = .763$), explained variance of 80.89%, Kaiser-Meyer-Oklin value was .500, and the Barlett's Test of Sphericity (Bartlett, 1954) reached statistical significance ($X^2 = 63.251$, p < .000), supporting the factorability of the correlation matrix. See table 1 for details.

Environmental Contribution Items	Loadings
Is relevant to the environment	.809
contributes to the environment	.809
Explained Variance (%)	80.890
Cronbach's Alpha (α)	.763
КМО	.500
Bartlett's Test of Sphericity	63.251

Table 1. Varimax Rotation of factor analysis for Environmental Contribution (N=134)

1.2 Moral elevation

The four items of the Moral scale were subjected to Exploratory Factorial analyses with principal components analysis (PCA), using SPSS Version 23. Inspection of the rotated component matrix correlation revealed loading of .893 and above. Results revealed satisfactory results, reliability ($\alpha = .937$), explained variance of 84.143%, Kaiser-Meyer-Oklin value was

.836, and the Barlett's Test of Sphericity (Bartlett, 1954) reached statistical significance ($x^2 = 475.547$, p < .000), supporting the factorability of the correlation matrix. Items loaded in one single component matrix. See table 2 for details.

Moral Elevation Items	Loadings
Admired	.926
Inspired	.926
Upfiled	.909
Awe	.886
Explained Variance (%)	83.158
Cronbach's Alpha (α)	.932
КМО	.863
Bartlett's Test of Sphericity	563.892

Table 2. Varimax Rotation of factor analysis for Moral elevation (N=134)

1.3 Morality

The four items of the Morality scale were subjected to Exploratory Factorial analyses with principal components analysis (PCA), using SPSS Version 23. Inspection of the rotated component matrix correlation revealed loading of .649 and above. Results revealed satisfactory results, reliability ($\alpha = .907$), explained variance of 79.077%, Kaiser-Meyer-Oklin value was .834, and the Barlett's Test of Sphericity (Bartlett, 1954) reached statistical significance ($x^2 =$ 377.878, p < .000), supporting the factorability of the correlation matrix. Items loaded in one single component matrix. See table 4 for details.

Morality Items	Loadings
Caring	.909
Kindhearted	.821
Ethical	.900
Moral	.923
Explained Variance (%)	79.077
Cronbach's Alpha (α)	.907
КМО	.834
Bartlett's Test of Sphericity	377.878

Table 4. Varimax Rotation of factor analysis for Morality (N=134)

1.4 Perceived Socioeconomic Status

The five items of the Perceived Socioeconomic Status perception were subjected to Exploratory Factorial analyses with principal components analysis (PCA), using SPSS Version 23. Inspection of the rotated component matrix correlation revealed loading of .414 and above. Results revealed satisfactory results, reliability ($\alpha = .880$), explained variance of 67.782%, Kaiser-Meyer-Oklin value was .781, and the Barlett's Test of Sphericity (Bartlett, 1954) reached statistical significance ($x^2 = 456.192$, p < .000), supporting the factorability of the correlation matrix. Itens loaded in one single component matrix. See table 5 for details.

Table 5. Varimax Rotation of factor analysis for Perceived Socioeconomic Status (N=134)

Social Status Items	Loadings
Robert has a lof of money	.892
Robert has high status	.868
Roberti is respected	.671
Robert is rich	.901
Robert works as an executive	.801
Explained Variance (%)	67.782
Cronbach's Alpha (α)	.880
КМО	.781
Bartlett's Test of Sphericity	456.192

1.5 Greenness

The five items of the Greenness scale were subjected to Exploratory Factorial analyses with principal components analysis (PCA), using SPSS Version 23. Inspection of the correlation matrix revealed the presence of all coefficients of .835 and above. Results revealed satisfactory results, reliability (α = .955), explained variance of 84.924%, Kaiser-Meyer-Oklin value was .906, exceeding the recommended value of .6 (Kaiser, 1970, 1974), and the Barlett's Test of Sphericity (Bartlett, 1954) reached statistical significance (x^2 = 714.621, p < .000), supporting the factorability of the correlation matrix. Items loaded in one single component matrix. See table 6 for details.

Greenness Items	Loadings
A person who cares about the environment would be likely to have this behavior	.881
Deserves to be labeled 'environmentally friendly	.942
Is a good environmental choice	.913
Is environmentally friendly	.945
How environmentally friendly or green is this behavior?	.925
Explained Variance (%)	84.924
Cronbach's Alpha (α)	.955
КМО	.906
Bartlett's Test of Sphericity	714.621

Table 6. Varimax Rotation of factor analysis for Greenness scale Items (N=134)

1.6 Correlations between variables

All correlations between the variables were significant (p < .01) and results confirm that all variables are independent. Multicollinearity was not found (r. < .531 or less). The assumption of singularity is also respected in this study. See table 7.

	1	2	3	4	5	6	7	8
1. Morality	-							
2. Socioeconomic Status	.026	-						
3. Moral Elevation	.482**	.202*	-					
4. Environmental Contribution	.453**	.249**	.479**	-				
5. Greenness	.531**	.091	.472**	.694**	-			
6. Enviromental Motivation	.413**	.325**	.474**	.409**	.279**	-		
7. Social Visibility	.324**	.121	.245**	.391**	.401**	.214*	-	
8. Practice	.194*	104	.433**	.167	.141	.134	.138	-

Table 7. Correlations for Study 2 - All Variables (N=134)

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Further, the relationship between Elevation, Environmental Contribution, Morality and Socioeconomic status perception was investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. Inspection of the correlation matrix revealed that items correlates at .525 or less, multicollinearity was not found. The assumption of singularity is also respected in this study. See table 8.

	1	2	3	4	5	9	7	8	6	10	11	12	13	14	15
1. Elevation_admired	I														
2.Elevation_awe	.789**	ı													
3. Elevation_inspired	.786**	.748**	ı												
4. Elevation_upfifted	.785**	.748**	.873**												
5.Moral_kindhearted	.364**	.358**	.403**	.480**	ı										
6. Moral_caring	.396**	.359**	.446**	.459**	.672**	·									
7. Moral_ethical	.394**	.324**	.433**	.430**	.630**	.746**	ı								
8. Moral_moral	.424	.371**	.464**	.462**	.649	.805**	.813**	ï							
9. Status_Has a lot of money	.073	.082	.111	.050	081	054	088	058	ı						
10. Status_Has high status	.297**	.296**	.308**	.267**	$.184^{*}$.248**	.183*	.246**	.618**	,					
11. Status_is respected	.506**	.509**	.513**	.525**	.318**	.372**	.397**	.401	.423**	.582**	ı				
12. Status_is rich	.083	.125	.140	.083	065	034	101	021	.919**	.655**	.414**	ı			
13. Status_work as an executive	.314**	.296**	.299**	.259**	.046	.058	.084	.087	.633**	.559**	.462**	.638**	ı		
14. Env contribution_contribution	.287**	.359**	.400**	.423**	.310**	.356**	.376**	.424	.125	.211*	.379**	$.194^{*}$.230**	ı	
15. Env contribution_relevance	.410**	.373**	.529**	.498	.273**	.365**	.340**	.401	.231**	.268**	.390**	.202*	.176*	.618**	ı
**. Correlation is significant at the 0.01 level (2-tx*. Correlation is significant at the 0.05 level (2-tai	ailed). iled).														

All items of the variables used on hypotheses tests were subjected to Exploratory Factorial analyses with principal components analysis (PCA). Oblimin rotation showed a component correlation matrix of maximum .480, between Elevation and Morality. Initial and rotated Eigenvalues kept same results, 6.310, 3.065, 1.533, and 1.020. Total variance explained of 79.521%, Kaiser-Meyer-Oklin value was .853, and the Barlett's Test of Sphericity ($x^2 = 1576.329$, p< .000). Pattern matrix and Structure matrix loaded four factors. Elevation scale items load higher in the first factor, Socioeconomic status load higher in the second factor, morality loaded higher in the third factor, and Environmental contribution load higher in the fourth factor. See tables 9 and 10

		Compor	nent	
	1	2	3	4
Env contribution_relevance	.135	.019	013	.837
Env contribution_contribution	025	.011	.089	.868
Elevation_inspired	.847	.004	.023	.139
Elevation_awe	.920	.017	051	005
Elevation_admired	.937	.010	.013	062
Elevation_upfiled	.855	051	.055	.128
Morality_moral	027	.007	.891	.104
Morality_kindhearted	.071	027	.809	062
Morality_caring	019	.012	.904	.028
Morality_ethical	029	026	.898	.044
Status_Has high status	.040	.814	.232	086
Status_is respected	.330	.507	.246	.042
Status_is rich	124	.935	121	.106
Status_has a lot of money	143	.936	125	.094
Status_work as an executive	.195	.764	056	055

Table 9. Pattern matrix for Study 2- Principal variables items (N=134)

Extraction Method: Principal Component Analysis.

a. Rotation converged in 7 iterations.

		Compo	nent	
	1	2	3	4
Env contribution_relevance	.463	.249	.364	.890
Env contribution_contribution	.361	.215	.399	.893
Elevation_inspired	.914	.250	.482	.482
Elevation_awe	.898	.242	.390	.341
Elevation_admired	.922	.230	.440	.313
Elevation_upfiled	.918	.196	.509	.471
Morality_moral	.443	.085	.917	.426
Morality_kindhearted	.428	.030	.818	.260
Morality_caring	.429	.075	.906	.358
Morality_ethical	.413	.038	.899	.360
Status_Has high status	.322	.820	.275	.208
Status_is respected	.591	.616	.454	.382
Status_is rich	.094	.921	077	.233
Status_has a lot of money	.067	.914	095	.212
Status_work as an executive	.337	.795	.069	.181

Extraction Method: Principal Component Analysis.

1. EXPLORATORY FACTORIAL ANALYSIS

1.1. Environmental contribution

The two items of the Environmental Contribution index were subjected to Exploratory Factorial analyses with principal components analysis (PCA), using SPSS Version 23. Inspection of the correlation matrix revealed the presence of all coefficients of .881 and above. Results revealed satisfactory results, reliability ($\alpha = .861$), explained variance of 87.81%, Kaiser-Meyer-Oklin value was .500, and the Barlett's Test of Sphericity (Bartlett, 1954) reached statistical significance ($X^2 =$ 757.558, p < .000), supporting the factorability of the correlation matrix. See table 1 for details.

Table 1. Varimax Rotation of factor analysis for Environmental Contribution (N=172)

Environmental Contribution Items	Loadings
Is relevant to the environment	.937
Contributes to the environment	.937
Explained Variance (%)	87.81
Cronbach's Alpha (α)	.861
КМО	.500
Bartlett's Test of Sphericity	143.807

1.2. Moral elevation

The four items of the Moral scale were subjected to Exploratory Factorial analyses with principal components analysis (PCA), using SPSS Version 23. Inspection of the rotated component matrix correlation revealed loading of .881 and above. Results revealed satisfactory results, reliability ($\alpha = .932$), explained variance of 83.158%, Kaiser-Meyer-Oklin value was .863, and the Barlett's Test of Sphericity (Bartlett, 1954) reached statistical significance ($x^2 = 563.892$, p < .000), supporting the factorability of the correlation matrix. See table 2 for details.

Moral Elevation Items	Loadings
Admired	.926
Awe	.886
Inspired	.926
Upfiled	.909
Explained Variance (%)	83.158
Cronbach's Alpha (α)	.932
КМО	.863
Bartlett's Test of Sphericity	563.892

Table 2. Varimax Rotation of factor analysis for Moral elevation (N=172)

1.3. Image Perception

The three items of the Image Perception scale were subjected to to Exploratory Factorial analyses with principal components analysis (PCA), using SPSS Version 23. Inspection of the correlation matrix revealed the presence of all coefficients of .881 and above. Results revealed satisfactory results, reliability (α = .887), explained variance of 81.758%, Kaiser-Meyer-Oklin value was .746, and the Barlett's Test of Sphericity (Bartlett, 1954) reached statistical significance (x^2 = 288.031, p < .000), supporting the factorability of the correlation matrix. See table 3 for details.

Image Perception Items	Loadings
Bad/Good	.896
Negative/Positive Unfavorable/	.913
Favorable	.903
Explained Variance (%)	81.758
Cronbach's Alpha (α)	.887
КМО	.746
Bartlett's Test of Sphericity	288.031

Table 3. Varimax Rotation of factor analysis for Image Perception (N=172)

1.4. Morality

The four items of the Morality scale were subjected to Exploratory Factorial analyses with principal components analysis (PCA), using SPSS Version 23. Inspection of the rotated component matrix correlation revealed loading of .833 and above. Results revealed satisfactory results, reliability ($\alpha = .806$), explained variance of 70.505%, Kaiser-Meyer-Oklin value was .806, and the Barlett's Test of Sphericity (Bartlett, 1954) reached statistical significance ($x^2 = 305.869$, p < .000), supporting the factorability of the correlation matrix. See table 4 for details.

Morality Items	Loadings
Kindhearted	.840
Caring	.835
Ethical	.833
Moral	.851
Explained Variance (%)	70.505
Cronbach's Alpha (α)	.806
КМО	.806
Bartlett's Test of Sphericity	305.869

Table 4. Varimax Rotation of factor analysis for Morality (N=172)

1.5. Perceived Socioeconomic Status

The five items of the Perceived Socioeconomic Status perception were subjected to Exploratory Factorial analyses with principal components analysis (PCA), using SPSS Version 23. Inspection of the rotated component matrix correlation revealed loading of .647 and above. Results revealed satisfactory results, reliability ($\alpha = .877$), explained variance of 66.18%, Kaiser-Meyer-Oklin value was .809, and the Barlett's Test of Sphericity (Bartlett, 1954) reached statistical significance ($x^2 =$ 809.943, p < .000), supporting the factorability of the correlation matrix. See table 5 for details.

Socioeconomic Status Items	Loadings
Robert has a lof of money	.873
Robert has high status	.855
Robert is respected	.647
Robert is rich	.868
Robert works as an executive	.888
Explained Variance (%)	66.188
Cronbach's Alpha (α)	.877
КМО	.809
Bartlett's Test of Sphericity	809.943

Table 5. Varimax Rotation of factor analysis for Perceived Socioeconomic Status (N=172)

1.6. Greenness

The five items of the Greenness scale were subjected to Exploratory Factorial analyses with principal components analysis (PCA), using SPSS Version 23. Inspection of the correlation matrix revealed the presence of all coefficients of .881 and above. Results revealed satisfactory results, reliability ($\alpha = .942$), explained variance of 81.48%, Kaiser-Meyer-Oklin value was .911, exceeding the recommended value of .6 (Kaiser, 1970, 1974), and the Barlett's Test of Sphericity (Bartlett, 1954) reached statistical significance ($x^2 = 757.558$, p < .000), supporting the factorability of the correlation matrix. See table 6 for details.

Table 6. Varimax Rotation of factor analysis for Greenness scale Items (N=172)

Greenness Items	Loadings
A person who cares about the environment would be likely to have this behavior	.907
Deserves to be labeled 'environmentally friendly	.881
Is a good environmental choice	.907
Is environmentally friendly	.913
How environmentally friendly or green is this behavior?	.906
Explained Variance (%)	81.487
Cronbach's Alpha (α)	0.942
КМО	0.911
Bartlett's Test of Sphericity	757.558

1.7. Correlations between variables

All correlations between the variables were significant (p < .01) and results confirm that all variables are independent. Multicollinearity was not found (r. < .795 and below). The assumption of singularity is also respected in this study. See table 7.

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Table 7. Correlations for Study 3- All Variables (N=172)

**. Correlation is significant at the 0.01 level (2-tailed).

Further the relationship between Elevation, Environmental Contribution, Image perception, Morality and Socioeconomic status perception were investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. Inspection of the correlation matrix revealed that items correlates at .599 or less, multicollinearity was not found. The assumption of singularity is also respected in this study. See table 8.

	10	tote S.	COLL	elation	s <i>Jor S</i>	tuay 5	- Prine	cipat v	ariabl	es iter	=NI) SU	(7/1=							
	1	7	Э	4	5	9	Г	8	6	10	11	12	13	14	15	16	17	18	19
1. Elevation_admired																			
2. Elevation_awe	.760**	ı																	
3. Elevation_inspired	.824**	.752**	·																
4. Elevation_uplifed	.790	.726**	.797**	ı															
5. Imagem_bad/good	.532**	.454**	.512**	.538**	ı														
6. Image_unfavorable/favorable	.422	.390**	$.410^{**}$.480**	.704**	ı													
7. Image_negative/positive	.446	.392**	.414**	.497**	.730**	.745**	ı												
8. Environamental contribution_contributes	.420 ^{**}	.430 ^{**}	.418**	.516**	.443**	.430 ^{**}	.435**	ı											
9. Environemental contribution_relevant	.398**	.422**	.419**	.441 ^{**}	.482**	.395**	.432**	.756**	ı										
10. Positive impact	.506**	.504**	.458**	.499*	.469**	.334**	.405**	.723**	.798**	ı									
11. Morality_kindhearted	.417**	.441 ^{**}	.416**	.527**	.476**	.565**	.465**	.599**	.544**	.473**	ı								
12. Morality_caring	.431**	.451**	.428**	.438**	.451**	.442**	.413**	.495**	.463**	.458**	.600**	ı							
13. Morality_moral	.440 ^{**}	.284**	$.390^{**}$.448	.511**	.519**	.423**	.485**	.503**	.338**	.665**	.575**	ı						
14. Morality_ethical	.370**	.368**	.420 ^{**}	.432**	.470**	.462**	.404**	.440 ^{**}	.396**	.332**	.556**	.632 ^{**}	.613**	ı					
15. Status_has high status	.429	.472**	.441	.385**	.247**	.135	$.164^{*}$.342**	.352**	.365**	.294**	.271**	.322**	.151*	ı				
16. Status_is respected	.477**	.536**	.442**	.481**	.394**	.380**	.393**	.514**	.471**	.493**	.562**	.447**	.435**	426**	.619**	ı			
17. Status_is rich	.316**	.310**	.257**	.227**	.085	.103	.129	.213**	.198**	.282**	.157*	.257**	.109	.081	.628**	.387**	I		
18. Status_has a lot of money	.253**	.244**	.262**	$.196^{*}$.093	.058	.092	.216**	.226**	.206**	.157*	.225**	.153*	.123	.633**	.409**	.796**	ı	
19. Status_work as an executive	.354**	.356**	.380**	.325**	.156*	.048	.183*	.244**	.223**	.290**	.139	.193*	.110	.029	.594**	.338**	.650**	.646**	·
**. Correlation is significant at the 0.01 level	(2-tailed	.(1																	

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*. Correlation is significant at the 0.05 level (2-tailed).

All items of the variables used on hypotheses tests were subjected to Exploratory Factorial analyses with principal components analysis (PCA). Oblimin rotation showed a component correlation matrix of maximum .500, between Elevation and Morality. Eigheten values were 8.569, 2.695, 1.448, 1.1.151, and .993. Total variance explained of 78.190%, Kaiser-Meyer-Oklin value was .885, and the Barlett's Test of Sphericity ($x^2 = 2483.705$, p< .000). Pattern matrix and Structure matrix loaded five factors. Morality items load higher in the first factor, Socioeconomnic status load higher in the second factor, Elevation loaded higher in the third factor, and Environemntal contribution and Positive enviromental impact loaded higher in ther fourth factor, and Imagem Perception loaded higher in ther fifth factor. See tables 9 and 10.

	Component				
	1	2	3	4	5
Elevation_admired	.014	.028	889	.029	.065
Elevation_awe	.008	.037	860	069	044
Elevation_inspired	.040	.009	919	.045	.018
Elevation_uplifted	.068	054	817	046	.097
Image_bad/good	.015	025	147	069	.771
Image_unfavorable/favorable	.166	013	.017	.060	.855
Image_neg/positive	076	.049	.009	053	.936
Env contribution_contributes	.152	001	.028	817	.026
Env contribution_relevant	.058	006	.075	910	.056
Positive environmental impact	125	002	125	917	.005
Morality_kindhearted	.633	.000	020	240	.099
Morality_caring	.713	.086	080	082	002
Morality_ethical	.840	078	108	.074	.024
Morality_moral	.771	.031	.026	027	.130
Status_has high status	.100	.707	191	100	116
Status_has a lot of money	.096	.948	.124	.053	.001
Status_is respected	.353	.356	139	226	005
Status_is rich	003	.926	.056	.030	.043
Status_work as an an executive	209	.777	155	035	.070

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 7 iterations.

	Component				
	1	2	3	4	5
Elevation_admired	.413	.355	922	456	.481
Elevation_awe	.388	.370	890	492	.399
Elevation_inspired	.416	.342	926	441	.451
Elevation_uplifted	.474	.282	894	510	.530
Image_bad/good	.491	.135	541	482	.875
Image_unfavorable/favorable	.554	.081	420	383	.901
Image_neg/positive	.422	.150	444	440	.923
Env contribution_contributes	.544	.264	453	887	.449
Env contribution_relevant	.489	.258	426	924	.451
Positive environmental impact	.368	.302	529	921	.405
Morality_kindhearted	.805	.196	452	596	.530
Morality_caring	.799	.258	452	488	.437
Morality_ethical	.849	.082	408	368	.454
Morality_moral	.843	.171	385	449	.518
Status_has high status Status_has a	.288	.812	488	406	.144
lot of money Status_is respected	.177	.903	239	220	.070
Status_is rich	.577	.534	528	569	.374
	.134	.900	288	240	.101
Status work as an an executive	.037	.818	403	279	.138

Table 10. Structure Matrix for Study 3- Principal variables items (N=172)

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

1. EXPLORATORY FACTORIAL ANALYSIS

1.1 Morality

The two items of the Morality scale were subjected to Exploratory Factorial analyses with principal components analysis (PCA), using SPSS Version 23. Inspection of the rotated component matrix correlation revealed loading of .449 and above. Results revealed satisfactory results, reliability ($\alpha = .842$), explained variance of 68.217%, Kaiser-Meyer-Oklin value was .799, and the Barlett's Test of Sphericity (Bartlett, 1954) reached statistical significance ($x^2 = 420.362$, p < .000), supporting the factorability of the correlation matrix. Items loaded in one single component matrix. See table 1 for details.

Morality Items	Loadings		
Morality_Kindhearted	.799		
Morality_Caring	.846		
Morality_Ethical	.867		
Morality_Moral	.790		
Explained Variance (%)	68.217		
Cronbach's Alpha (α)	.842		
КМО	.799		
Bartlett's Test of Sphericity	420.362		

Table 1. Varimax Rotation of factor analysis for Morality (N=259)

1.2 Perceived Socioeconomic Status

The five items of the Perceived Socioeconomic Status perception were subjected to Exploratory Factorial analyses with principal components analysis (PCA), using SPSS Version 23. Inspection of the rotated component matrix correlation revealed loading of .404 and above. Results revealed satisfactory results, reliability ($\alpha = .812$), explained variance of 64.217%, Kaiser-Meyer-Oklin value was .856, and the Barlett's Test of Sphericity (Bartlett, 1954) reached statistical significance ($x^2 = 626.996$, p < .000), supporting the factorability of the correlation matrix. Items loaded in one single component matrix. See table 2 for details.

Socioeconomic status	Loadings		
Has a lot of money	.853		
Has high status	.817		
Is respected	.672		
Is rich	.903		
Work as an executive	.742		
Explained Variance (%)	64.217		
Cronbach's Alpha (α)	.856		
КМО	.824		
Bartlett's Test of Sphericity	626.996		

Table 2. Varimax Rotation of factor analysis for Perceived Socioeconomic Status (N=259)

1.3 Correlations between variables

Correlations between the several variables were significant and results confirm that all variables are independent. Multicollinearity was not found (r. < .645 or less). The assumption of singularity is also respected in this study. See table 3.

	1	2	3	4	5	6	7
1. Env. Contribution	-						
2. Morality	.508**	-					
3. Socioeconomic Status	.119	.210**	-				
4. Env counsciouness_Walmart	.225**	.255**	.475**	-			
5. Env. Counsciouness_Gucci	.116	.293**	.545**	.645**	-		
6. Envi Cousnciounss actor	.216**	.308**	.102	057	.011	-	
7. Product Quality	.218**	.191**	.648**	.407**	.496**	.012 -	

**. Correlation is significant at the 0.01 level (2-tailed).

Further, the relationship between Environmental Contribution, Morality and Socioeconomic status perception items were investigated using Pearson product-moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. Inspection of the correlation matrix revealed that items from different scales correlates at .405 or less, multicollinearity was not found. The assumption of singularity is also respected in this study. See table 4.

All items of the variables used on hypotheses tests were subjected to Exploratory Factorial analyses with principal components analysis (PCA). Varimax rotation showed a component correlation matrix of maximum .458, between Environmental Contribution and Morality. Eigenvalues were 3.142, 2.811, 1.237. Total variance explained of 71.900%, Kaiser-Meyer-Oklin value was .832, and the Barlett's Test of Sphericity ($x^2 = 1231.498$, p< .000). Rotated Component matrix loaded trhee factors. Socioeconomic status load higher in the first factor, Morality items load higher in the second factor, and Environmental Contribution items load higher in the third factor. See table 5.
	-	7	Э	4	5	9	٢	∞	6	10
1. Env. Contribution	1									
2. Morality_Moral	.405**	1								
3. Morality_Kindhearted	.359**	.449**	1							
4. Morality_Caring	.462**	.584**	.572**	1						
5. Morality_Ethical	.458**	.591**	.627**	.627**	1					
6. Status_Has high status	.274**	$.321^{**}$.050	.157*	$.170^{**}$	1				
7. Status_is respected	.291**	.347**	.245**	.381**	.293**	.473**	1			
8. Status_is rich	.112	$.230^{**}$.068	.093	.109	.715**	.479**	1		
9. Status_has a lot of money	.050	.210**	.179**	$.136^{*}$	$.140^{*}$.618**	$.404^{**}$.769**	1	
10. Status_work as an executive	.050	.174**	$.136^{*}$.118	.075	.425**	.434**	.584**	.558**	1
**. Correlation is significant at the 0.*. Correlation is significant at the 0.	0.01 level (2- .05 level (2-ti	tailed). ailed).								

Table 4. Correlations for Study 4- Principal variables items (N=259)

	Component				
	1	2	3		
Status_is rich	.903	005	.138		
Status_has a lot of money	.871	.108	058		
Status_work as an exec- utive	.777	.135	190		
Status_Has high status	.757	018	.475		
Status_is respected	.580	.297	.312		
Morality_Kindhearted	.074	.870	104		
Morality_Ethical	.056	.829	.219		
Morality_Caring	.073	.804	.255		
Morality_Moral	.206	.665	.352		
Env. Contribution	.009	.400	.780		

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Monetary	Neste sábado, logo após acordar, Patrícia fez exercícios,	Depois do almoço, Patrícia foi ao shopping comprar um casaco. Patrícia escolheu um casaco com forro em algodão orgânico e revestimento em tecido ecológico, que reduz o uso de produtos químicos e água no pro- cesso de produção.	ent to imagine how this behavior is performed and about	A person who decides to buy an electric car.	in the US. It is Saturday morning, Robert eats breakfast, breakfast, Robert goes food and grocery shopping. <i>i</i> diet.
Conditions Non-Monetary	Sábado da Patrícia Patrícia tem 30 anos e mora na mesma cidade que você. tomou seu café da manhã e pagou algumas contas.	Depois do almoço, Patrícia foi ao shopping buscar um casaco, que ela tem há algum tempo, e mandou refor- mar para continuar a usá-lo por mais tempo.	Think about the behavior described below. Take a mome the person who performs it.	A person who decides walking, pedaling, or taking rides instead of driving.	Robert is a mid-age person and lives in a house in a city takes a shower, and gets dressed in casual clothes. After He prioritizes organic vegetables and fruits in his family
Study		Study 1	- -	Study 2	Study 3

APPENDIX F – Studies Manipulation Scripts

Robert found an organic food and grocery shop with local suppliers agreements. On average, the prices of these organic products are 30% more expensive compared to non-organic counter- parts.	Robert found an organic food and grocery shop with local suppliers agreements. The prices of these organic products are similar to the non-organic counterparts.	vyou live. Last Saturday, right after woke up, she did her	After lunch, Paty went to a mall to buy a new Walmart jacket and chose one from the sustainable collection. The main fabric is eco-friendly, made with a water-less innovation process, and made with organic cotton.	After lunch, Paty went to a mall to buy a new Gucci jacket and chose one from the sustainable collection. The main fabric is eco-friendly, made with a water-less innovation process, and made with organic cotton.	
After searching a lot for a good place to buy organic food, Robert only found an once a week farmer's mar- ket with organic food and grocery. This farmer's market is large, Robert needs to walk a lot in the market. It is hard and time consuming for him and he spends many hours to shop, go back home, and unpack his groceries.	Robert easily found an organic food and grocery shop very close to his house. Quickly, he shops, goes back home, and unpacks his groceries.	Paty's Saturday Schedule Paty is 30 years old, has a job, and lives in the same city workout routine, ate breakfast, and paid bills	After lunch, Paty went to a mall to pick up her Walmart jacket, which was in a clothing repair service. Paty owns this jacket for some while and decided to repair it to extend its use for more time.	After lunch, Paty went to a mall to pick up her Gucci jacket, which was in a clothing repair service. Paty owns this jacket for some while and decided to repair it to extend its use for more time.	
High-intensity	Low-intensity		Low-status brand	High-status brand	
			Study 4		