The Impact of Socioeconomic Status on Preference for Sustainable Luxury Brands

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Abstract
Sustainability has become an increasing concern for many brands and companies and an increasing number of luxury brands now engage in sustainability practices. The present research examines the factors influencing the effectiveness of embedding sustainability in luxury brands. Specifically, this paper investigates how childhood socioeconomic status (SES) moderates consumer preferences for sustainable (vs. regular non-sustainable) luxury brands. Across three experimental studies with different product categories and luxury brands, this paper finds that preferences for regular (vs. sustainable) luxury goods are stronger in people with a relatively high (vs. low) childhood SES (Studies 1-3). Notably, these preference patterns are driven by differences in the perceived quality of the brand among consumers with low versus high childhood SES (Study 2). However, these divergent patterns are attenuated when consumers experience high perceived environmental threat from the COVID-19 pandemic (Study 3). Taken together, these findings provide several theoretical and managerial implications.

Introduction
In today's world, sustainability has become an increasing concern for many brands and companies, including those in the global luxury industry (DeBeers 2009; Nieto 2016). This trend can be clearly seen given the increasing number of luxury brands that now engage in sustainability practices, such as employing transparent production processes (Han et al. 2017), developing sustainable product lines (Li and Leonas 2019), and engaging in corporate donations (Sengabira et al. 2020). The ‘sustainable luxury’ movement (Minton and Geiger-Oneto 2020) offers the potential for overcoming ethical issues related to the luxury industry (Joy et al. 2012; Han et al. 2017). Scholars and practitioners increasingly suggest that the concepts of luxury and sustainability should go hand in hand (Davies et al. 2012).

However, the relationship between the concepts of luxury and sustainability is complex. While some scholars believe that the two concepts share common themes (Hennigs et al. 2013; Cervellon 2013), others have argued that there is inherent conflict associated with sustainable luxury brands (Joy et al. 2012; Han et al. 2017). Empirically, there are also mixed findings in this regard; incorporating sustainability into luxury brands can be beneficial (Septianto et al. 2020; Sengabira et al. 2020) or detrimental (Dekhili et al. 2019; Torelli et al. 2011). This situation indicates that much more work is needed to reconcile the effectiveness of embedding sustainability in luxury brands.

The present research aims to address this gap by proposing that consumer evaluations of sustainable luxury brands can be more (vs. less) favorable than regular luxury brands, depending on whether consumers grew up in environments with plentiful or scarce resources. Research documents that childhood socioeconomic status (hereafter, SES) influences the strategies people use to overcome the challenges in their environment and determines their decision-making in adulthood (Griskevicius et al. 2011; Wang et al. 2020). This is because consumers with high childhood SES grew up in a more stable environment with plentiful resources, whereas those with low childhood SES grew up in an unpredictable environment. As a result, situational control appears to be lower for those reared in unpredictable social
and unstable economic environments (Brady and Matthews 2002). Because the different levels of resources people can access in low and high childhood SES influence people’s prosociality (Amir et al. 2018; Whelan and Hingston 2016) and the development of people’s preferences, we predict that childhood SES affects preferences for sustainable luxury (vs. regular luxury).

Across three experimental studies, the current research shows that consumers with low childhood SES showed more favorable attitudes toward sustainable luxury brands, whereas those with high childhood SES showed more favorable attitudes toward regular luxury brands (Studies 1-3). These patterns were mediated by the perceived quality of the brands, such that consumers with low (vs. high) childhood SES perceived sustainable luxury brands to have higher (vs. lower) quality than regular luxury brands (Study 2). This effect was attenuated when consumers experienced high levels of perceived threat in the environment.

In the following sections, we first review the relevant literature on sustainable luxury and life history theory in order to develop our hypotheses. Then, we present three experimental studies designed to test the predictions. The paper ends with discussion of the theoretical and managerial implications of the findings, acknowledges the limitations of the present research, and highlights future research avenues.

**Theoretical Background**

**Sustainable Luxury Brands**

An emerging body of literature has studied the concept of sustainable luxury brands (Kapferer 2010; Septianto et al. 2020; Han et al. 2017; Achabou and Dekhili 2013). In particular, while scholars and practitioners in general agree to some extent that the concepts of luxury and sustainability should go hand in hand (Davies et al. 2012), there is ongoing debate about whether the two concepts are compatible or not. On one hand, scholars have pointed out that the two concepts share some similarities (Hennigs et al. 2013; Cervellon 2013). For instance, both sustainable and luxury brands are ‘durable,’ reflecting the notion of lasting through time (Carcano 2013; Dekhili et al. 2019). On the other hand, scholars have argued that there are inconsistent meanings associated with sustainability and luxury (Kapferer and Michaut-Denizeau 2014; Joy et al. 2012; Han et al. 2017). Specifically, while sustainability is associated with altruism and ethics (Joy et al. 2012), luxury is associated with conspicuousness and elitism (Naderi and Strutton 2015).

Notably, a few studies have further pointed out that quality can be a key discriminating factor between sustainable and luxury products (Achabou and Dekhili 2013; Dekhili et al. 2019). The perceived quality of a product reflects “consumers’ judgment about a product’s overall excellence or superiority” (Zeithaml 1988, p. 3). When considering luxury products, consumers have a strong association between luxury and quality (Dubois et al. 2001). In fact, past studies have suggested that one key difference between luxury and non-luxury products is the high quality and performance offered by luxury products (Vigneron and Johnson 2004, 1999; Aaker 1991).
In line with the debate on compatibility between sustainability and luxury, some research has argued that both sustainable and luxury brands have high quality (Hennigs et al. 2013; Godart and Seong 2014) and thus, they are compatible with each other (Joy et al. 2012). Conversely, other work has showed that incorporating sustainability into luxury brands can be detrimental, so that the sustainable luxury brands are seen as having lower quality than regular luxury brands (Achabou and Dekhili 2013; Dekhili et al. 2019). For instance, using recycled materials in luxury textiles can be considered to conflict with the notion of prestige (Achabou and Dekhili 2013).

These inconsistent findings highlight the need to examine the conditions under which consumer evaluations of sustainable luxury brands can be more (vs. less) favorable than those of regular luxury brands due to differences in perceived quality between the two. The present research addresses this gap by proposing the moderating role of consumers’ childhood SES by building on life history theory (Griskevicius et al. 2011; Wang et al. 2020).

**Childhood Socioeconomic Status (SES)**

Because of limited resources and energy, all organisms face a fundamental challenge of allocating finite resources to vital tasks over the life course (Griskevicius et al. 2011). Given that natural selection acts to optimize resource use, researchers in evolutionary biology and behavioral ecology have developed life history theory to explain how organisms, including humans, allocate resources to tasks necessary for survival and reproduction over the life course (Griskevicius et al. 2011; Charnov 1993). With limited resources, organisms face trade-offs between reproductive and somatic effort and develop life history strategies falling on a slow—fast continuum (Ellis et al. 2009; Turbill et al. 2011; Griskevicius et al. 2013). Organisms that live in harsh and unpredictable environments do not gain much from investment in somatic effort because the outcome of the investment is outside the organism's control. Thus, such organisms evolve a faster strategy, reaching sexual maturity and reproduction early in life, without long-term somatic investment. On the other hand, organisms inhabiting predictable, benign environments are more likely to make heavy, long-term somatic investments and reach sexual maturity later in life.

Because early-life experience shapes the way people respond to the environment (Ellis et al. 2009), research has shown that harsh environmental conditions encountered during early childhood are detrimental to developing life history strategies (Griskevicius et al. 2013). Individuals growing up in lower SES environments experience a more unpredictable and harsh early-life environment (Mittal and Griskevicius 2014). Thus, they are likely to adopt faster strategies, such as making risky choices for quicker payoffs. Conversely, individuals who grow up in higher SES environments are likely to perceive environments as less unpredictable, thus preferring a larger, delayed reward and avoiding risk (Griskevicius et al. 2011; Mittal and Griskevicius 2014).
More relevant to this study, prior work based on life history theory supports that high childhood SES increases prosocial behavior, which is arguably associated with sustainable consumption. As noted earlier, benign early-life conditions lead to slower life history strategies, such as valuing delayed (vs. immediate) payoffs (Ellis et al. 2009; Griskevicius et al. 2011). Research has shown that people who value delayed payoffs are more likely to cooperate (Curry et al. 2008), and less likely to compete with others (Wolf et al. 2009). Besides, because behaving prosocially is generally costly for the self but offers a good reputation and long-term indirect benefits (Nowak and Sigmund 2005; Penner et al. 2005), higher childhood SES would promote prosocial behavior (Wu, Yuan and Kou 2020).

In contrast, Amir et al. (2018) proposed a broader framework and predicted the reverse relationship between childhood SES and prosociality. They posited that an uncertainty management strategy, in which those who grew up with low childhood SES tend to form preferences aimed at diminishing the downside costs of uncertainty, underlies the link between childhood SES and behavior in adulthood. Those with scarce resources cannot afford negative returns, and thus they have to develop strategies minimizing uncertainty. Research indicates that risk pooling through cooperation with other social entities is an effective defensive strategy against uncertainties (Winterhalder 1990, 1986). Thus, those who are living at the margins and highly vulnerable to changes in their environment can defend against unexpected events by cooperating with others, just in case (Amir et al. 2018). These strategies for managing uncertainty are then internalized early in life and guide decisions in adulthood. In sum, the uncertainty management strategy implies that possible future rewards motivate those with low childhood SES to engage in prosocial behavior. Indeed, Amir et al. (2018) showed that those with relatively low childhood SES were more generous than those with high childhood SES even after controlling for the effect of current SES.

In sum, prior research suggests that early life environments are detrimental to prosocial behavior in adulthood. Interestingly, however, research provides mixed predictions regarding the relationship between childhood SES and prosociality. More importantly, to the best of our knowledge, no empirical research has examined the impact of childhood SES on sustainable luxury consumption.

Main Predictions

Main Effect of Childhood SES on Preference for Sustainable Luxury

Prosocial behavior often involves some cost to the agent in the form of sacrifice of time or money to benefit others (Liu and Aaker 2008). However, this research compares consumer preference between sustainable and regular luxury, which does not involve a trade-off between delayed payoffs and immediate costs. Thus, we followed uncertainty management strategy instead of life history theory and proposed that the different levels of resources people accessed as a result of low and high childhood SES would determine their preferences for sustainable (vs. regular) luxury brands.

According to uncertainty management strategy, people who grow up in low childhood SES cannot easily afford the negative returns of environmental damages, and thus they should use a defensive strategy to
minimize uncertainty. The nature of low SES poses greater threats (Evans 2004) and reduced control (Lachman and Weaver 1998), increasing the importance of interdependence with others. The “social insurance” hypothesis also suggests that sharing resources or joining cooperative groups can be used as insurance to deal with environmental uncertainty (Suleiman et al. 2015). That is, in fluctuating, unpredictable environments, being alone is extremely disadvantageous, and cooperating with others is critical for survival. Thus, adversity in early life would promote prosociality as a defensive strategy (Whelan and Hingston 2016). More importantly, as supported in prior research (Amir et al. 2018; Griskevicius et al. 2013), early life experiences can significantly influence later adult behavior. Following this logic, the development and emphasis on the value of pro-social behavior could increase positive attitudes toward sustainable (vs. regular) luxury brands for those with a relatively low childhood SES. On the other hand, the reverse pattern could be expected from people with a relatively high childhood SES.

As another support, research suggests that SES affects the development of one's preference and choice. Choice provides the opportunity to express and affirm one's internal self, including one's preferences (Carey and Markus 2016; Kitayama et al. 2004). Higher SES individuals tend to attribute life outcomes to their own internal attributes (e.g., goals or preference), and ample resources can give people with high SES increased opportunities to create outcomes by following their internal preferences (Carey and Markus 2016). However, resource-scarce environments limit people's ability to behave according to the preferences of their internal self. Thus, lower SES individuals tend to attribute contextual factors as the determinants of their life outcomes and develop their preferences according to situations.

Emphasis on sustainable attributes could reduce the perceived quality of luxury brands. For example, Luchs and Kumar (2017) argued that the quality of products or brands could be reduced by sustainable attributes, especially for functional aspects, since sustainability is conceptually associated with gentleness or softness (see also Luchs et al. 2010). Skard et al. (2020) extended this argument, in that this effect applied regardless of the types of sustainable attributes (i.e., central or peripheral attributes). Thus, sustainable consumption requires giving up personal value for social value and demands sacrifice relating to other attributes (e.g., quality) that are personally important (Hardisty and Weber 2009). Because people with high childhood SES seek utility maximization and make choices based on their internal needs and preferences rather than considering others, we expected that those people would prefer non-sustainable/regular luxury to sustainable luxury.

In sum, based on these theoretical supports, we present the following formal hypothesis:

**H1**: Preference for regular (vs. sustainable) luxury will be stronger for people with a relatively high (vs. low) childhood SES.

**Moderating Effect of the COVID-19 Pandemic Threat**
Currently, the COVID-19 pandemic is significantly influencing our lives and fundamentally changing our behavior. He and Harris (2020) discuss the importance of understanding consumer ethics during the pandemic since consumer ethical decisions are significantly affected by situational or environmental factors as well as by personal factors. In this article, we investigate the moderating role of the perceived threat of COVID-19 on the impact of childhood SES on sustainable consumption.

One interesting change in social behavior during the pandemic has been an increase in altruistic behaviors and a decrease in anti-social behavior such as crime (Vertin 2020). Research suggests an important role of self-identity as pro-consumers (White et al. 2020), especially during a pandemic (He and Harris 2020). The current COVID-19 pandemic poses significant threats to almost everyone, regardless of SES, and reduces perceived control. As discussed earlier, this threat will thus increase the importance of interdependence with others and highlight prosocial behavior (Suleiman et al. 2015). Put differently, even people with higher childhood SES will focus on supporting environmental values, especially given the high perceived threat of the COVID-19 situation. Therefore, we expect that the perceived COVID-19 threat will moderate the impact of childhood SES on sustainable consumption, such that:

**H2**: Higher preference for regular (vs. sustainable) luxury from people with a relatively high (vs. low) childhood SES will be strong only when the perceived threat of COVID-19 is low.

**Study 1**

**Showing the Initial Empirical Evidence of H1**

**Method: Participants and Procedure**

One hundred and seventy-two adults ($M_{age} = 38.68$, $SD = 12.85$; 47.7% female) were recruited from an online panel (Amazon Mechanical Turk) and participated in this study for a nominal payment. We employed a 2 (type of luxury: non-sustainable/regular vs. sustainable luxury) between-subjects design, and participants were randomly assigned to one of the two conditions. First, participants were given information about a luxury watch brand (Rolex). The pictorial information was the same in the two experimental conditions, but the product information was different. Specifically, participants in the regular luxury condition were given a short history of Rolex, as shown in Figure 1. Participants in the sustainable luxury condition were given additional information about sustainable attributes (‘Rolex is pairing the sale of our handmade products with an environmental action. For every item sold, we remove one pound of trash from waterways. Show others you value clean oceans, with Rolex’). Then all participants were asked to rate their attitude toward the target brands using 4 items from Errmann et al. (2019); i.e. very bad – very good/ unfavourable – favorable/ unappealing – appealing/ not at all likable – very likable, along a 7-point Likert scale (Cronbach’s $\alpha = .958$). After that, participants indicated their perceived luxury
rating (i.e. not at all luxurious – very luxurious) and sustainability rating (not at all charitable – very charitable) for the product using a 7-point scale.

Finally, all participants were asked to describe their childhood SES via 3 items (e.g., ‘I grew up in a relatively wealthy neighborhood’, Cronbach’s α = .844) and their current SES using 3 items (e.g., “I don’t need to worry too much about paying my bills,” Cronbach’s α = .890) on a 7-point scale as described by Griskevicius et al. (2011) (Cronbach’s α = .898).

**Results and Discussion**

The manipulation check was successful in that the perceived luxury was similar regardless of our manipulation ($M_{\text{regular}} = 6.33, \text{SD} = .82$ vs. $M_{\text{sustainable}} = 6.34, \text{SD} = .99, F(1, 170) = .01, p = .958, \eta^2 = .000$). On the other hand, the perceived sustainability was higher for the sustainable luxury condition rather than the regular luxury condition ($M_{\text{regular}} = 4.78, \text{SD} = 1.65$ vs. $M_{\text{sustainable}} = 5.48, \text{SD} = 1.32, F(1, 170) = 9.68, p = .002, \eta^2 = .054$).

Since the moderator (i.e., childhood SES) was a continuous variable, we conducted Hayes (2017) analysis with model #1 (IV: sustainable [1] vs. non-sustainable/regular luxury [2], moderators: childhood SES, DV: attitude toward the luxury brand). The interaction effect was significant ($\beta = .20, \text{se} = .09, t = 2.20, p = .028, 95\% \text{CI: [}.023, .384\text{]}$). Specifically, the detailed pattern confirmed our prediction as shown in Figure 2. For participants with relatively high childhood SES (i.e., +1 SD in scale), the main effect of the information on scarcity was significant ($\beta = .42, \text{se} = .19, t = 2.15, p = .028, 95\% \text{ CI: [}.045, .784\text{]}$) in that the evaluation of the luxury brand was higher when the luxury was regular (vs. sustainable) luxury ($M_{\text{regular}} = 6.37$ vs. $M_{\text{sustainable}} = 5.96$). On the other hand, for those with relatively low childhood SES (i.e., -1 SD) the opposite pattern was found, but failed to reach significance ($\beta = -26, \text{se} = .21, t=-1.23, p = .220, 95\% \text{ CI: [-}.686, .159\text{]}$), supporting our H1.

We also conducted the same analysis including current SES. In contrast to the childhood SES, the interaction effect between the current SES and type of luxury was not significant ($\beta = .04, \text{se} = .08, t = 43, p = .666, 95\% \text{ CI: [-}.126, .197\text{]}$). These results are interesting in that the results differed for current and childhood SES despite a significant correlation between the current and childhood SES ($r = .575, p < .001$).

In sum, this study offers the first empirical evidence for our main predictions. Specifically, the preference for regular (vs. sustainable) luxury was higher for participants whose childhood SES was high. This interaction effect could not be interpreted as a general wealth effect, based on the insignificant results from participants’ current SES.
Study 2

Showing the Underlying Mechanism by Replicating Study 1

Study 1 provided initial evidence of supporting H1. In Study 2, we used a relatively affordable and hedonic luxury product (chocolate). One limitation of study 1 may have been the different amounts of information provided about the regular and sustainable luxury product in that the sustainable luxury condition included additional information, which may have influenced participants’ attitude toward the brand. To overcome this potential limitation, we provided more information for the regular luxury condition in this study. Furthermore, Study 1 used real brands; therefore, the existing attitude toward the brand may have confounded the results regardless of our manipulation. Given the significant correlation between childhood and current SES, those with relatively high childhood SES may have been more familiar with luxury brands than those with low childhood SES. In order to reduce this individual difference, we used a hypothetical brand in this study. Finally, and more importantly, we also test the mechanism by measuring perceived quality in this study.

Method: Participants and Procedure

The study participants were 183 adults ($M_{age} = 37.42$, SD = 12.12; 41.5% female) recruited from an online panel (Amazon Mechanical Turk) for a nominal payment. Participants were randomly assigned to one of 2 between-subjects experimental conditions (type of luxury: non-sustainable/regular vs. sustainable luxury).

The general procedure for this study was quite similar to that of Study 1, with a few modifications. First, participants were given information about a luxury chocolate brand (“EVGENEIA”). The type of luxury was manipulated with additional information, as shown in Figure 3. All participants were then asked to rate their attitude toward the target brand (Cronbach’s $\alpha = .933$) as well as the perceived luxury and sustainability, using the same scale as Study 1. In addition, participants were asked to rate their perceived quality for the target brand using 3 items (e.g., This brand seems to be of very good quality), based on Magnier et al. (2016), on a 7-point scale (Cronbach’s $\alpha = .909$). Finally, participants were asked to rate their childhood SES (Cronbach’s $\alpha = .866$) and their current SES (Cronbach’s $\alpha = .870$) with the same scale used in Study 1.
Results and Discussion

Our manipulation of regular versus sustainable luxury was successful. The perceived luxuriousness was similar regardless of whether the target brand was sustainable or regular luxury ($M_{\text{regular}} = 5.85$, $SD = 1.27$ vs. $M_{\text{sustainable}} = 5.99$, $SD = 1.07$, $F(1, 181) = .66$, $p = .416$, $\eta^2 = .004$). However, the perceived sustainability was higher in the sustainable luxury brand condition than in the regular luxury condition ($M_{\text{regular}} = 5.26$, $SD = 1.27$ vs. $M_{\text{sustainable}} = 5.70$, $SD = 1.35$, $F(1, 181) = 5.25$, $p = .023$, $\eta^2 = .028$).

For the main analysis, we conducted a Process Model #1, following Hayes (2017). The interaction effect between childhood SES and type of luxury was significant ($\beta = .53$, $se = .13$, $t = 4.02$, $p < .001$, 95% CI: [.267, .782]). Specifically, the detailed pattern confirmed our prediction as shown in Figure 4. For participants with relatively high childhood SES (i.e., +1 SD in scale), the main effect of the information on scarcity was significant ($\beta = .79$, $se = .26$, $t = 3.05$, $p = .003$, 95% CI: [.279, 1.302]) in that the evaluation of the luxury brand was higher when the luxury was regular (vs. sustainable) luxury ($M_{\text{regular}} = 6.06$ vs. $M_{\text{sustainable}} = 5.27$). On the other hand, for those with relatively low childhood SES (i.e., -1 SD) the opposite pattern was found ($M_{\text{regular}} = 5.29$ vs. $M_{\text{sustainable}} = 5.97$; $\beta = -.68$, $se = .26$, $t = -2.65$, $p = .009$, 95% CI: [-1.191, -.174]), supporting our H1.

We also conducted the analysis using current SES. We found that the interaction effect between childhood SES and type of luxury was significant ($\beta = .29$, $se = .14$, $t = 2.16$, $p = .032$, 95% CI: [.025, .564]). However, the detailed comparisons between the two types of luxury brand were non-significant among participants with relatively low childhood SES ($\beta = -.37$, $se = .27$, $t = -1.38$, $p = .169$, 95% CI: [-.901, .159]) and high childhood SES ($\beta = .45$, $se = .27$, $t = 1.70$, $p = .090$, 95% CI: [.072, .980]). Note that the correlation between the current and childhood SES was significant ($r = .653$, $p < .001$).

To test the underlying process driving these divergent preferences, we conducted a mediated moderation analysis using model #8 (Hayes 2017). Specifically, we examined the indirect effects of childhood SES x type of luxury on brand attitude via perceived quality. We also included current SES as a covariate. The interaction effect between childhood SES and type of luxury on perceived quality was significant ($\beta = .53$, $se = .13$, $t = 3.84$, $p < .001$, 95% CI: [.257, .799]). Specifically, for participants with relatively high childhood SES, the perceived quality of the sustainable luxury brand was lower than the regular luxury brand ($M_{\text{regular}} = 5.57$ vs. $M_{\text{sustainable}} = 4.73$; $\beta = .85$, $se = .27$, $t = 3.10$, $p = .002$, 95% CI: [.307, 1.382]). However, for those with relatively low childhood SES, the perceived quality of the sustainable luxury brand was higher than the regular luxury brand ($M_{\text{regular}} = 5.15$ vs. $M_{\text{sustainable}} = 5.79$; $\beta = -.64$, $se = .27$, $t = -2.34$, $p = .020$, 95% CI: [-1.180, -.100]). More importantly, and consistent with our expectations, the indirect effects via perceived quality were significant among those with relatively low ($\beta = -.467$, $se = .160$, 95% CI: [.797, -.165]) and high ($\beta = .616$, $se = .275$, 95% CI: [.077, 1.164]) childhood SES, but in opposite directions.

Study 3
Showing the Boundary Conditions

In this study, we tested the boundary conditions for our main effects. Specifically, we focused on the effect of the recent COVID-19 pandemic effect on perceptions of luxury. We expected that the high salience of COVID-19 would reduce the impact of the type of luxury. In addition, this study examined the uniqueness of sustainable luxury by comparing sustainable luxury and sustainable non-luxury.

Method: Participants and Procedure

The study participants were 268 adults ($M_{\text{age}} = 39.16, \text{SD} = 13.38; 41.0\% \text{ female}$) recruited from an online panel (Amazon Mechanical Turk) for a nominal payment. Participants were randomly assigned to one of 3 between-subjects experimental factors designs (type of product: non-sustainable/regular luxury vs. sustainable luxury vs. sustainable non-luxury).

The general procedure of this study was quite similar to that of Studies 1 and 2, with a few modifications. First, participants were given information about COVID-19 and asked to rate their perceived threat of the virus using 4 items (e.g., ‘What are the chances of you getting infected with COVID-19?’, based on Kim, 2020; Kim et al., 2020) on a 7-point scale (Cronbach’s $\alpha = .814$). Then, participants were given information about a gender-neutral bag (for the luxury brand – Louis Vuitton; for the non-luxury brand – United by Blue). The type of the luxury was manipulated with additional information, as shown in Figure 5. Then all participants were asked to rate their attitude toward the target brands (Cronbach’s $\alpha = .927$), as well as the perceived luxury and sustainability using the same scale as that in Study 1. Finally, participants were asked to rate their childhood SES (Cronbach’s $\alpha = .843$) and their current SES (Cronbach’s $\alpha = .897$).

Results and Discussion

The manipulation check was successful in that the perceived luxury was higher for the two luxury conditions ($M_{\text{regular luxury}} = 6.22, \text{SD} = 1.03$ & $M_{\text{sustainable luxury}} = 6.39, \text{SD} = .82$) than for the non-luxury conditions regardless of our manipulation ($M_{\text{sustainable non-luxury}} = 5.27, \text{SD} = 1.41, F(2, 265) = 26.72, p <.001, \eta^2 = .168$). On the other hand, the perceived sustainability was higher for the two sustainable conditions ($M_{\text{sustainable luxury}} = 5.03, \text{SD} = 1.60$ & $M_{\text{sustainable non-luxury}} = 5.79, \text{SD} = 1.25$) than for the regular condition ($M_{\text{regular luxury}} = 4.53, \text{SD} = 1.68, F(2, 265) = 15.61, p <.001, \eta^2 = .105$).
We conducted Hayes' (2017) analysis with model #1 (IV: sustainable luxury [1] vs. non-sustainable/regular luxury [2] vs. sustainable non-luxury [3], moderators: childhood SES, & DV: attitude toward the luxury brand). Because we had three different conditions, we tested the differences between (i) comparison #1 (sustainable luxury vs. regular luxury) and (ii) comparison #2 (sustainable luxury vs. sustainable non-luxury) separately.

We first focused on comparison #1. The three-way interaction effect between COVID-19 threat, childhood SES, and sustainable vs. regular luxury was significant ($\beta = -.11$, se = .05, $t = -2.16$, $p = .032$, 95% CI: [-.215, -.010]). Specifically, the detailed pattern confirmed our prediction, as shown in Figure 6. For relatively low threat COVID-19 conditions, we replicated the previous studies in that the 2-way interaction effect between childhood SES and two different types of luxury was significant ($F(1, 170) = 11.27$, $p = .001$). Specifically, for participants with relatively high childhood SES (i.e., +1 SD in scale), the evaluation of the luxury brand was higher when the luxury was regular (vs. sustainable) luxury ($M_{regular\ luxury} = 6.28$ vs. $M_{sustainable\ luxury} = 4.96$). On the other hand, for those with relatively low childhood SES (i.e., -1 SD) the opposite pattern was found ($M_{regular\ luxury} = 4.91$ vs. $M_{sustainable\ luxury} = 5.78$). Importantly, the interaction effect was not significant in high disease threat conditions ($F(1, 170) = .22$, $p = .641$). Specifically, the evaluation of the luxury brands was similar across childhood SES and type of luxury.

In sum, we replicated the previous finding for the relatively low perceived threat condition, whereas the significant interaction effect was eliminated for the relatively high perceived threat condition, supporting H2. Furthermore, the results of comparison #2 were different from the results above (i.e., comparison #1). The three-way interaction effect between COVID-19 threat, childhood SES, and sustainable luxury vs. sustainable non-luxury was not significant ($\beta = -.042$, se = .05, $t = -.92$, $p = .360$ 95% CI: [-.131, .048]). The detailed pattern is illustrated in Figure 6.

**General Discussion**

This study examined how childhood SES moderated consumer preferences for (sustainable) luxury brands. Across three experimental studies with different product categories (watch, chocolate, and handbag) and luxury brands (Rolex, a fictitious brand, and Louis Vuitton), we provided concrete empirical evidence that preferences for regular (vs. sustainable) luxury items was stronger for people with a relatively high (vs. low) childhood SES (Studies 1-3). These preference patterns were driven by differences in the perceived quality of the brand among consumers with low versus high childhood SES (Study 2). We further investigated this prediction by including the current environmental issue of the COVID-19 pandemic threat. The results of Study 3 indicate that these divergent patterns were attenuated when consumers experienced a high perceived threat of disease (from COVID-19). Taken together, these findings create several theoretical and managerial implications.
Theoretical and Practical Implications

This study has produced several theoretical implications. First, the present research contributes to the emerging literature on sustainable luxury. Scholars and practitioners increasingly advocate that the concepts of luxury and sustainability should go hand in hand (Davies et al. 2012). However, the extant literature offers mixed findings on the potential of incorporating sustainability in luxury brands, indicating that it may lead to positive (Septianto et al. 2020; Sengabira et al. 2020) or negative effects (Dekhili et al. 2019; Torelli et al. 2011). We reconcile these seemingly conflicting findings by identifying the moderating role of childhood SES. Consumers with low (vs. high) childhood SES show stronger preferences for sustainable luxury (vs. regular luxury) brands due to differences in the way such consumers perceive the value of sustainable luxury products (Dekhili et al. 2019; Achabou and Dekhili 2013).

Second, Yan et al. (2020) recently argued that preference for pro-environmental (vs. regular) options depends on social class, providing empirical evidence of a curvilinear relationship between social class and sustainable consumption in that sustainable consumption is higher for the middle class (vs. low or high class). The key underlying mechanism of this finding is the need for assimilation in low social classes and the need for differentiation in high social classes. We tried to analyze our data based on the level of childhood SES, but the results differed from those of Yan et al. (2020). There were several differences between our study and that of Yan et al. (2020), including the target products (luxury product vs. non-luxury product) or type of SES (childhood SES vs. current SES). Further investigation is needed to determine the non-linear impact of SES on sustainable consumption.

This research also adds to the literature on childhood SES. Despite scarce evidence, prior research documents a relationship between childhood SES and prosocial behavior (Amir et al. 2018; Wu et al. 2020). Interestingly, however, this prior work presents inconsistent relationships between childhood SES and prosocial behavior. Focusing on sustainable luxury consumption, which should be closely related to prosociality, the present research revealed that relatively low childhood SES increases preferences for sustainable luxury brands/products, supporting the uncertainty management account (Amir et al. 2018). We also found that increasing external threats, like COVID-19, led people to favor sustainable luxury regardless of childhood SES. Taken together, our research adds to the literature on childhood SES in several ways.

Last, this study extends our understanding of the effect of COVID-19 on sustainable consumption. To the best of our knowledge, empirical studies regarding the impact of COVID-19 pandemic on consumption behavior are limited. This paper suggests a significant moderating role of the perceived threat on sustainable luxury consumption. Specifically, we found that a high perceived threat of disease eliminated the impact of childhood SES on sustainable consumption. A simple explanation for this result could be the effect of negative emotions, such as fear of COVID-19. Further investigation is needed to gain a deeper understanding of sustainable consumption during pandemic conditions.
Practically, one clear take-away message from the current research is the importance of marketers considering specific consumer segments, based on their childhood SES, which can have divergent influences on the effectiveness of incorporating sustainability in luxury brands. COVID-19 has changed our normal lives as well as our consumption lives. One result of the changes caused by the pandemic is increased sales in the luxury market. For example, the sale of Louis Vuitton's luxury bags has increased by up to 50%, especially in China (Reuters.com 2020) and the price of luxury bags has increased despite the global economic decline. One reason for this popularity of luxury bags could be the restoration of self-control by spending money on expensive and conspicuous items (e.g., Kim 2020; Brehm and Brehm 1981). In global pandemic circumstances, it is very important to reduce unnecessary spending by the public. This paper suggests one practical way to achieve this goal: emphasizing the sustainable aspects of luxury products. This suggestion may have a stronger effect on those whose childhood SES was relatively high. However, the results of study 3 indicate that when people perceived a higher threat of COVID-19, this pattern was not significant.

Limitations and Future Research

This research has some limitations and offers several avenues for future research. First, because we used self-reported childhood SES, its causal role cannot be established. A measured approach is the norm in this literature (Griskevicius et al. 2011; Wang et al. 2020; Whelan and Hingston 2018). However, studies in different domains have also suggested that it is possible to temporarily overrule mental traits developed in childhood (e.g., attachment styles) (Mikulincer et al. 2001). Second, we only measured brand attitude as the dependent variable. It would thus be of interest to determine whether our effect can be extended to different consumer behavior domains (e.g., sharing on social media) (Septianto et al. 2020) and real purchase decisions. Third, the focus of this research was to examine cognitive underlying mechanisms (i.e. perceived quality of a product), as opposed to emotional responses. However, it is also possible that some emotional or affective concept could be a potential mediator (Antonetti and Maklan 2014; Septianto et al. 2020). Given the important role of emotions in advertising (Poels and Dewitte 2019) and luxury brands (McFerran et al. 2014), future research should explore differences in emotional states.

Declarations

Compliance with Ethical Standards

Conflict of Interest: The authors declare that they have no conflicts of interest.
Ethical Approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee, and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent: Informed consent was obtained from all individual participants taking part in the study.

References


**Figures**
Sustainable luxury

Every detail is considered when designing a Rolex. From humble beginnings 115 years ago, skill and innovation have made Rolex a brand coveted by the elite.

Rolex is pairing the sale of our handmade products with an environmental action. For every item sold, we remove one pound of trash from waterways. Show others you value clean oceans, with Rolex.

Non-sustainable/Regular luxury

Every detail is considered when designing a Rolex. From humble beginnings 115 years ago, skill and innovation have made Rolex a brand coveted by the elite.

Figure 1

Stimuli of Study 1
Figure 2

Results of Study 1
**Sustainable luxury**

![EVGENEIA Chocolate Bar](image1)

EVGENEIA is universally recognized as a symbol of luxury and status. From humble beginnings, skill and innovation have made EVGENEIA a brand coveted by the elite. Every detail is considered when making EVGENEIA chocolate truffles.

**Non-sustainable/Regular luxury**

![EVGENEIA Chocolate Bar](image2)

EVGENEIA pairs the sale of its products with an environmental action. For every truffle sold, we plant a tree by collaborating with an innovative re-forestation organization.

**Figure 3**

Stimuli of Study 2
Figure 4

Results of Study 2
Figure 5

Stimuli of Study 3
Figure 6

Results of Study 3