Essays on Intangible Properties of Products and Consumer Evaluations

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Abstract

Essays on Intangible Properties of Products and Consumer Evaluations

Minju Han

2021

My dissertation focuses on how intangible properties of a product (e.g., authenticity) affect consumer utility and purchase decisions above and beyond a product’s tangible properties (e.g., functionality). This dissertation builds on previous research on conceptual consumption, which has established that consumers’ evaluations of a product are not only influenced by its physical properties but also by various psychological properties associated with the product.

Each essay in my dissertation explores different market phenomena that cannot be accounted for by extant theories, wherein consumers fail to maximize functional utility. The first essay explores a case where consumers prefer retro products that were never part of their personal history to functionally superior, modern alternatives. The second essay examines the market phenomenon wherein consumers prefer the original version of a product to a new and functionally superior version of the same product in the context of heritage brands. Together, two essays in my dissertation enrich our understanding of the critical role intangible properties play in consumption. I show that a product’s intangible properties can not only serve as an independent source of value but can also trump a product’s salient, tangible properties.
Essays on Intangible Properties of Products and Consumer Evaluations

A Dissertation

Presented to the Faculty of the Graduate School

of

Yale University

In Candidacy for the Degree of

Doctor of Philosophy

By

Minju Han

Dissertation Advisers: George E. Newman and Gal Zauberman

December 2021
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EXTENDED ABSTRACT

My dissertation focuses on how a product’s intangible properties (e.g., authenticity) affect consumer utility and purchase decisions above and beyond a product’s tangible properties (e.g., functionality). In particular, this paper interrogates how a product’s intangible properties can lead consumers to prefer functionally inferior products. For example, it is curious that young consumers today consume retro products despite the availability of newer and functionally superior modern alternatives are readily available. Furthermore, many present-day consumers identify as minimalists and choose to forego the convenience and functionality offered by modern products. Extant theories are unable to account for this curious market phenomenon; this lacuna in the research has prompted me to explore antecedents and psychological motivations. This dissertation builds on previous research on conceptual consumption, which has established that consumers’ evaluations of a product are not only influenced by its physical properties but also by various psychological properties associated with the product.

The current work extends previous research on conceptual consumption (Ariely and Norton 2009), which has established that consumers’ evaluations of a product are not only informed by its physical properties but also guided by various psychological properties associated with the product. Contrary to research that documented various positive consequences of product enhancements (Carpenter, Glazer, and Nakamoto 1994; Mukherjee and Hoyer 2001), the two essays in my dissertation shows cases in which consumers prefer functionally inferior products due to their psychological benefits (essay 1) and brand authenticity perception (essay 2).

The first essay explores why consumers are drawn to retro products they have not used previously in their lifetimes or ones that had already become obsolete before they were born. For
example, it is interesting that, in a time when digital streaming services predominate, some young consumer prefers vinyl records despite having grown up listening to MP3 files. In this context, the recent interest in retro products does not seem to stem solely from consumers’ nostalgic desire to own items from their past (personal nostalgia). By drawing on System Justification Theory (Jost and Banaji 1994), I explain that one reason why consumers may be drawn to retro products not associated with their personal past is that those products can provide a sense of stability and permanence. Consistent with this theory, I find that when consumers feel that their broader social system is threatened, it can increase their evaluations of retro experiences and preference for retro products.

The second essay explores the market phenomenon wherein consumers prefer the original version of a product to a new and functionally superior version of the same product in the context of heritage brands. While previous research has shown that heritage branding increases product appeal, I demonstrate that heritage branding can also have potentially negative consequences by leading consumers to react negatively to changes made to the brand’s original product, even if those changes objectively improve the product. Specifically, I found that product enhancements can backfire if consumers perceive an enhancement as violating their expectation that heritage brand products remain continuous with the brand’s origin. For example, functional enhancements to a product from a non-heritage brand increase its perceived value (e.g., a hand cream made with a formula that incorporates recent scientific research). However, a similar functional enhancement can decrease value if the product is from a heritage brand. Similarly, during consequential purchase decisions, participants were more likely to choose an original than a digitally remastered version of the same album when a band emphasized its brand heritage. Although the newer product may be functionally superior, it loses value because consumers
intuitively assess a brand’s authenticity based on whether it has remained continuous and connected to its origin over time. In addition to demonstrating this core effect in various product domains, I also identify an important boundary condition that has practical implications for firms. I show that negative evaluations of enhanced products can be attenuated if brands reframe product changes as continuous with the brand’s origins.

These two essays in my dissertation enrich scholarly understandings of the critical role intangible properties play in consumption. I demonstrate that a product’s intangible properties can not only serve as an independent source of value but can also trump a product’s salient, tangible properties. Importantly, both essays identify the underlying mechanisms and provide specific, empirically grounded recommendations for marketers who wish to implement strategies based on a fine-grained understanding of the psychological values and motivations underlying consumption.

REFERENCES


ESSAY 1

Seeking Stability: Consumer Motivations for Communal Nostalgia
ABSTRACT

Existing research has examined why consumers are drawn to things from their past (personal nostalgia). However, little empirical work has examined why consumers prefer products that were never a part of their personal history (communal nostalgia). For example, a consumer may purchase vinyl records even though she grew up listening to mp3 files. Here we find that one reason why consumers may be drawn to communal nostalgia is that it can provide a sense of social stability. Drawing on System Justification Theory (Jost and Banaji, 1994), we demonstrate that perceived threats to the social system increase consumer demand for communal nostalgia and enhance the pleasure consumers get from certain retro products. We further show that a retro product’s ability to provide a sense of stability to consumers mediates the effect of system justification on communal nostalgia. Together, these findings suggest that communal nostalgia may be driven by its own unique motivational antecedents that are distinct from personal nostalgia, as individuals seek to connect to aspects of society that are perceived as stable and unchanging.

Keywords: Communal nostalgia, Nostalgia, System Justification Theory, Compensatory consumption

In 2008, there were a number of anomalous events. The world entered into a global financial crisis; major financial institutions, such as Lehman Brothers, filed for bankruptcy; and
several nations were gripped by political and social unrest (Frank and Hesse, 2009). Curiously, this coincided with a spike in sales of vinyl records across the U.S. and Europe for the first time in nearly 30 years (an upward trend that has continued throughout the last decade). In fact, sales of vinyl records in 2019 were roughly equivalent to sales in 1988, despite that sales of all other forms of recorded music (e.g., cassette tapes and compact discs) have dropped precipitously since 2000 (RIAA, 2018). In a time when digital streaming services predominate, what motivates consumers to purchase vinyl records?

One explanation is personal nostalgia. Indeed, a substantial body of research has examined the utility consumers get from consuming products associated with their own past (Holbrook and Schindler, 2003; Loveland et al., 2010; Routledge et al., 2012; Wildschut et al., 2006; Wildschut et al., 2010). This research has found that people gravitate toward personal nostalgia when they experience some type of threat to their personal identity. For example, experimentally manipulating loneliness (Wildschut et al., 2006; Zhou et al., 2008) and alienation (Sedikides et al., 2015) increases consumers’ desire to purchase items from their past. Moreover, personal nostalgia has been found to buffer against threats posed to one’s personal identity, such as those that undermine meaning in life (Routledge et al., 2011), increase awareness of one’s mortality (Juhl et al., 2010; Routledge et al., 2008), and lower one’s self-esteem (Vess et al., 2012).

However, the majority of vinyl records today are purchased by consumers under 35 (Ringen, 2015), and some of the bestselling records are from current artists, like Taylor Swift (RIAA, 2018). Therefore, it is unlikely that the recent interest in vinyl records stems solely from consumers’ own childhood experiences. Instead, such preferences seem to reflect instances of
**communal nostalgia** (Davis, 1979)—preferences for things that are associated with the past at a cultural or societal level but were not directly part of one’s personal history.¹

Although communal nostalgia has been discussed by several scholars (Davis, 1979; Wildschut et al., 2014), to date, no experiments have been conducted to examine its causal antecedents. The empirical work that has been done typically finds lower consumer engagement and emotional reactions for communal (vs. personal) nostalgia (Marchegiani and Phau, 2013). For example, a campaign message that references communal (vs. personal) nostalgia triggered lower levels of positive affect and less favorable attitudes (Muehling and Pascal, 2011). Other research has found that reminders of communal nostalgia may buffer against societal threats such as collective guilt (Baldwin et al., 2018) and encourage preferences for domestic (vs. foreign) products (Dimitriadou et al., 2019).

The present studies investigate the causal antecedents of communal nostalgia; specifically, how communal nostalgia stems from more fundamental desires to see one’s broader social system as stable and unchanging. We draw on System Justification Theory (SJT), which proposes that people have a fundamental motive to seek stability in organizations, economic systems, and governments (Jost and Banaji, 1994). Existing research has found that when their system is threatened, consumers engage in several strategies to affirm the stability of social structures. For example, they prefer domestic products (Cutright et al., 2011) and products that suggest an incidental degree of “structure,” such as a framed (vs. unframed) painting (Cutright, 2011). Taken together, the literature on SJT suggests that people have a core motive to view their broader social system as stable and, if threatened, will engage in both direct and indirect strategies to restore a sense of stability.

¹ Communal nostalgia has also been referred to as collective nostalgia (Davis, 1979) or historical nostalgia (Marchegiani & Phau, 2013; Stern, 1992).
Thus, system justification may provide one explanation of why consumers seek communal nostalgia. Specifically, when consumers feel that their collective identity is threatened, they may gravitate toward certain retro products, like vinyl records, because those products reflect some degree of stability and permanence. Importantly, this mechanism is distinct from one that explains personal nostalgia, which is typically associated with threats posed to personal identity (Routledge et al., 2011).

Our prediction builds on Davis’ (1979) original theorizing that abrupt social changes, including depressions, wars, and massive natural disasters may increase communal nostalgia. Davis (1979) suggested that people may seek communal nostalgia during times of social instability because it “acts to restore, at least temporarily, a sense of sociohistorical continuity.” However, no experimental work to date has examined whether the desire for system stability indeed increases communal nostalgia.

To test this prediction, we conducted three empirical studies. Study 1 demonstrates that system threat (versus affirmation) makes retro experiences more pleasurable. Study 2 replicates this effect with a larger sample of products. Study 3 further demonstrates that system threat only enhances the demand for retro products that are “communally nostalgic” and that a product’s ability to provide a sense of stability to consumers mediates the effect of system threat on demand for certain retro products.

**STUDY 1**

In Study 1, participants were exposed to an established system threat (versus affirmation) manipulation (Kay et al., 2005). Then, participants listened to a song on a record player and rated how much they enjoyed listening to it and their interest in purchasing a record player. We predicted
that participants in the system threat (vs. system affirmation) condition would rate the experience as more pleasurable and show greater interest in purchasing a record.

In this study, we also asked participants to indicate whether they associated record players with their own past. We reasoned that participants with a personal connection to vinyl records would have a high desire to use a record player for personally-nostalgic reasons, making them less susceptible to the system threat manipulation. Moreover, the effects of personal nostalgia have been shown to be stronger than those of communal nostalgia (Baker and Kennedy, 1994; Marchegiani and Phau, 2013; Muehling and Pascal, 2011), suggesting that those participants might be at “ceiling” when evaluating their experience with the record player. Consequently, we hypothesized that the effect of system threat on participants’ experience with the record player would be primarily driven by participants who did not have a personal association with vinyl records (i.e., communal nostalgia).

It is important to note that we do not conceive of communal nostalgia and personal nostalgia as mutually exclusive concepts. We conceptualize personal nostalgia as a dichotomous variable: one either has a personal experience with a product or not. However, we conceptualize communal nostalgia as a continuous variable, which is assessed based on the extent to which a product is associated with America’s collective identity and past (explored further in Study 3).

Method

We recruited 395 participants in a university lab ($M_{age}=37.2$, 70% female). All participants completed the study in an individual survey room with a laptop computer, headphones, and a record player in front of them (see figure 1.1).

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2 We conducted a post hoc power analysis for each study. Please see Appendix 1F in the Supplementary Information.
Participants were randomly assigned to the system threat or system affirmation condition (manipulation pretest results are reported in the Appendix 1A). The manipulations were taken directly from previous research (Cutright et al., 2011; Kay et al., 2005; Lau et al., 2008). In the system threat condition, participants read an article reporting that American society and values have deteriorated. In the system affirmation condition, participants read an article reporting that American society and values are relatively stable. Following the protocol from previous research (Brescoll et al., 2013; Sotola, 2016), participants completed two manipulation check questions.

Then, a research assistant came into the room and started the vinyl recording of *The Only Living Boy in New York* by Simon and Garfunkel. When the song finished, participants indicated how much they enjoyed the experience of listening to the record: “How much did you enjoy listening to the song on a vinyl record? How exciting was it to listen to the song on a vinyl record? How pleasant was it to listen to the song on a vinyl record?” (1 = Not at all, 9 = Very much so). Participants also indicated their interest in purchasing a record player: “I would consider purchasing a record player; I would like to own a record player; I think a record player is worth
spending money on” (1=Not at all, 9=Very much so). A factor analysis indicated that the listening experience items and purchase intention items loaded on two separate factors (see Appendix 1G).

To assess whether participants had personal nostalgia toward vinyl records, we asked participants to indicate whether they associate vinyl records with their own past (yes vs. no). Finally, participants supplied basic demographic information, including age, gender, political orientation, and religiosity.

Results and Discussion

Nine participants (2.3%) failed at least one of the manipulation check questions and were excluded from the analyses, leaving 386 participants. However, the pattern of results was the same when these participants were included.

Hedonic Experience

The hedonic experience items formed a reliable index ($\alpha = .82$). As predicted, participants in the system threat condition enjoyed listening to the vinyl record more than participants in the system affirmation condition ($M_{threat}=7.67$ vs. $M_{affirmation}=7.34$), $t(384)=2.23$, $p=.026$, $d=0.23$. The effect of system threat on hedonic experience did not interact with age ($p=.75$), gender ($p=.90$), political ideology ($p=.60$), or religiosity ($p=.50$).

Purchase Intention

The purchase intention measures formed a reliable index ($\alpha=.92$). As predicted, participants in the system threat condition were more interested in purchasing a record player than participants in the system affirmation condition ($M_{threat}=5.67$ vs. $M_{affirmation}=5.15$); $t(384)=1.99$, $p=.048$, $d=0.21$.

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3 We also report MANOVA and MANCOVA analyses in Appendix 1H to supplement results reported in the manuscript.
4 In Appendix 1D, we report the main analysis results of all studies with age, gender, political ideology, and religiosity as covariates.
This effect did not interact with age ($p=.91$), gender ($p=.66$), political ideology ($p=.61$), or religiosity ($p=.33$).

**Personal Nostalgia Present vs. Absent**

There were 250 participants ($M_{age}=24.9$; 62% female) who did not associate vinyl records with their own past (personal nostalgia absent) and 136 participants ($M_{age}=37.2$; 70% female) who did (personal nostalgia present). Participants who associated vinyl records with their past were significantly older than those who did not ($t(383)=12.89, p<.001$). However, there were no systematic differences in gender ($p=.14$), religiosity ($p=.12$), or political orientation ($p=.40$) between the two groups.

To analyze how these groups differed in their response to the manipulation of system threat, we conducted a two-way ANOVA with system threat as one factor and personal nostalgia as the other. Although the interaction between threat and personal nostalgia (present vs. absent) did not reach statistical significance ($F(1,382)=2.27, p=.13, \eta_p^2=0.01$), we did find differential effects of system threat on participants who lacked personal nostalgia toward vinyl versus those who reported having personal nostalgia with vinyl records. Indeed, the effect of system threat was driven by participants who were not personally nostalgic toward vinyl records. These participants showed a pronounced effect of system threat on their reported enjoyment ($M_{threat}=7.63$, vs. $M_{affirmation}=7.12$), $t(248)=2.71$, $p=.007$, $d=0.34$. However, participants who were personally nostalgic toward vinyl records were not affected by the system threat manipulation and appeared to be at “ceiling,” reporting the maximum level of enjoyment in both conditions ($M_{threat}=7.75$ vs. $M_{affirmation}=7.71$), $t(134)=0.15$, $p=.88$.

Analogously, the effect of system threat on purchase interest was driven by the participants who did not associate vinyl records with their own past ($M_{threat}=5.21$ vs. $M_{affirmation}=4.61$),
$t(248)=1.96, p=.051, d=0.25$. Personally nostalgic participants were also at ceiling for their reported purchase intentions ($M_{threat}=6.54$ vs. $M_{affirm}=6.11$), $t(134)=1.00, p=.32$.

**FIGURE 1.2**

HEDONIC EXPERIENCE AND PURCHASE INTENTION IN STUDY 1

(a) Hedonic Experience

(b) Purchase Intention

**Note.** Mean ratings of hedonic experience and purchase intention in Study 1 as a function of participants’ personal nostalgia for vinyl records (personal nostalgia present versus absent).

Overall, Study 1 found that system threat (vs. affirmation) increased participants’ enjoyment of the listening experience and their interest in purchasing a record player. Interestingly, this effect was driven by participants who were *not* personally nostalgic toward vinyl records, which indicates a unique causal relationship between system justification and communal nostalgia per se.

**STUDY 2**
The goal of Study 2 was to replicate the effect demonstrated in Study 1 with a larger sample of products.

**Method**

**Stimuli**

We constructed eleven product pairs, with each pair containing a retro product and a modern equivalent. In constructing these pairs, we were mindful of two potential confounds: different inferences regarding the age of the products and different inferences regarding the products’ prices. To control for these factors, we selected pairs of products that were the same price in real life and were brand-new and available for purchase on Amazon.com.

**Procedure**

We recruited 403 participants from Amazon’s Mechanical Turk ($M_{age}=37.1$; 50% female). Participants were randomly assigned to the system threat or system affirmation condition. We manipulated the system justifying motives using a modified version of the manipulation from Study 1 (pretest results reported in SI, Appendix 1B). Participants then viewed pairs of products and indicated their preferences ($1=Strongly prefer Product A$, $9=Strongly prefer Product B$). We incorporated a random sampling method in which eight product pairs were randomly selected from a pool of eleven (Judd et al., 2012; Westfall et al., 2014). Each product pair was presented on a different page in a randomized order. We recoded the preference ratings for all product pairs, such that the preference for the retro product was associated with higher scores. Finally, participants supplied basic demographic information, including age, gender, political orientation, and religiosity.
Results and Discussion

Six participants (1.5%) failed at least one of the manipulation check questions and were excluded from the analyses, leaving 397 participants. However, the pattern of results was the same when these participants were included.

We conducted a linear mixed-model analysis using the restricted maximum likelihood estimation technique based on ARH(1) covariance structure. We included system threat as a fixed factor, eight product ratings as a within-subjects factor, and, based on recommendations made by Judd et al. (2012), included participants and stimuli as random factors. We found that participants in the system threat condition preferred the retro products significantly more than those in the
system affirmation condition ($M_{\text{threat}}=3.94$ vs. $M_{\text{affirmation}}=3.59$), $B=-0.34$, $SE=.14$, $p=.018$, 95% CI=$-0.62$ to $-0.06$. The effect of system threat on preference for retro products did not interact with age ($p=.81$), gender ($p=.10$), religiosity ($p=.28$), or political ideology ($p=.65$).

FIGURE 1.4
COMMUNAL NOSTALGIA BY PRODUCT PAIR IN STUDY 2

Note. Preference for communally nostalgic products (vs. modern equivalent) is associated with higher scores.

STUDY 3

The goal of Study 3 was two-fold: First, we sought to provide evidence regarding the underlying mechanism. Specifically, we hypothesized that system threat enhances the demand for communal nostalgia because communally-nostalgic products provide a sense of stability and permanence. To test this, we directly measured the perceived stability associated with using the products and then tested via mediation whether perceived stability explained the increased preference for a set of communally-nostalgic products under system threat.
Second, we sought to identify a boundary condition. Some retro products, such as a record player, may have stronger cultural associations than other retro products, such as an answering machine. Consequently, we hypothesized that system threat should uniquely increase demand for products with a strong cultural association (i.e., communal nostalgia). To test this, participants were exposed to either the system threat or system affirmation manipulation and were asked to express their interest in using either a set of retro products that are highly associated with America’s cultural identity or a set of comparison retro products that did not have the same cultural associations.

**Method**

*Stimuli Pretest*

Starting with a list of 10 products, we asked participants to rate the extent to which they associate each product with America’s collective identity and past. We identified three retro products (a rotary phone, a record player, and a typewriter) that were rated as “high” on communal nostalgia and three retro products (an answering machine, a portable CD player, and a flip phone) that were rated as “low” on communal nostalgia (pretest results in Appendix 1C).

*Procedure*

We recruited 602 participants on Amazon’s Mechanical Turk ($M_{\text{age}}=40.1$, 50% female). Participants were randomly assigned to one of four conditions in a 2(system threat vs. affirmation) X 2(high vs. low communal nostalgia) between-subjects design. We used the same system threat manipulations and manipulation check questions as Study 1. Then, in an ostensibly unrelated study, participants indicated their interest in using either the three high communal nostalgia products or the three low communal nostalgia products. Specifically, for each product, participants saw a
picture and answered: “To what extent would you enjoy using this product?” (1=Not at all, 9=Very much so).

To measure the hypothesized mediator, we asked participants to indicate the extent to which using the three products would provide them with a sense of stability: “Using these products would make me feel connected to something timeless; Using these products would give me a sense of stability and permanence; Using these products would make me feel connected to my culture’s past” (1=Not at all, 9=Very much so). Finally, participants supplied basic demographic information, including age, gender, political orientation, and religiosity.

Results and Discussion

Seventy-one participants (12%) failed at least one of the manipulation check questions and were excluded from the analyses, leaving a total of 531 participants (see Appendix 1F for further discussion of differences in exclusion rates across the studies). However, the pattern of results was the same when these participants were included.

Expected Enjoyment

We created an index of participants’ expected enjoyment by averaging the ratings of three products presented in each condition. We then conducted a 2(system threat vs. system affirmation) X 2(high vs. low communal nostalgia) ANOVA. We found no main effect of system threat, $F(1,527)=0.00, p=.99$. There was a significant effect of product type, such that participants expected to enjoy using the high communal nostalgia products significantly more than the low communal nostalgia products ($M_{high}=4.54$ vs. $M_{low}=3.13$), $F(1,527)=73.41, p<.001$, $\eta^2_p=.12$. Importantly, however, the magnitude of this effect varied depending on whether participants were exposed to the system threat or affirmation manipulation, $F(1,527)=6.92, p=.009$, $\eta^2_p=.013$. The preference for high (vs. low) communal nostalgia products was significantly greater when
participants were exposed to system threat ($M_{\text{high}}=4.76$ vs. $M_{\text{low}}=2.93$, $t(272)=8.22$, $p<.001$, $d=0.99$) versus system affirmation ($M_{\text{high}}=4.33$ vs. $M_{\text{low}}=3.36$, $t(255)=4.04$, $p<.001$, $d=.50$) (see Figure 1.5).

The effect of system threat on expected enjoyment did not interact with age ($p=.46$), gender ($p=.82$), or political ideology ($p=.87$). However, religiosity significantly interacted with the system threat manipulation ($p=.029$) (see General Discussion for further discussion of this interaction).

**Perceived Stability and Permanence**

We conducted an analogous two-way ANOVA on the perceived stability index ($\alpha=.86$). Overall, participants responded that high (vs. low) communal nostalgia products provided a greater sense of stability ($M_{\text{high}}=5.27$ vs. $M_{\text{low}}=4.22$), $F(1,527)=31.56$, $p<.001$, $\eta^2_p=.06$. However, the magnitude of this effect also significantly varied depending on whether participants were exposed to the system threat or affirmation manipulation, $F(1,527)=3.95$, $p=.047$, $\eta^2_p=.007$. Indeed, the extent to which high (vs. low) communal nostalgia products were rated as providing a sense of stability was significantly greater when participants were exposed to system threat ($M_{\text{high}}=5.55$ vs. $M_{\text{low}}=4.13$, $t(272)=5.72$, $p<.001$, $d=0.69$) versus system affirmation ($M_{\text{high}}=4.99$ vs. $M_{\text{low}}=4.32$, $t(255)=2.42$, $p=.016$, $d=0.30$).

The effect of system threat on perceived stability of retro products did not interact with age ($p=.17$), political ideology ($p=.34$), or gender ($p=.98$). However, religiosity significantly interacted with the system threat manipulation ($p=.006$).
FIGURE 1.5
EXPECTED ENJOYMENT AND PERCEIVED STABILITY IN STUDY 3

Note. Mean ratings of expected enjoyment and perceived stability in Study 3 as a function of experimental condition.

Mediation Analysis

To test for mediation, we used PROCESS macro (Model 7; Hayes, 2013) with 10,000 bootstrap samples to estimate a moderated mediation model with product type as the independent variable (0=low communal nostalgia, 1=high communal nostalgia), perceived stability index as the mediator, expected enjoyment index as the dependent variable, and system threat as the moderator (0=system affirmation, 1=system threat). The results indicated significant moderated mediation (Index of moderated mediation =.40, 95% CI=.005 to .81). Expected enjoyment was significantly mediated by perceived stability in the system threat condition (B=0.77, 95% CI=.50 to 1.06), and to a significantly lesser extent, in the system affirmation condition (B=0.37, 95% CI=0.07 to 0.67).

GENERAL DISCUSSION
Across three experiments, we find that one reason why consumers may be drawn to communal nostalgia is that those products can provide a sense of stability when the broader social system is threatened. Furthermore, we distinguish this mechanism from personal nostalgia. We find, for example, that the effect of system justification on the enjoyment of retro products is actually more pronounced among consumers who are not personally nostalgic about the product (Study 1), and that age does not moderate the effect of system justification (all studies). Importantly, we provide direct evidence that the perceived stability of products explains the increased preference for those retro products under system threat (Study 3).

Beyond establishing the causal link between system justifying motives and preferences for retro products, we also contribute to the literature by differentiating the antecedents of communal nostalgia from those of personal nostalgia. Specifically, while past work has shown that threats to one’s personal identity enhance personal nostalgia (Routledge et al., 2008), the present studies demonstrate how threats to one’s collective identity may enhance communal nostalgia.

The relationship between societal threats and nostalgia has been discussed in previous research (Davis, 1979). However, the current research extends the previous theorizing in three important respects. First, our work uses experimental methods to demonstrate a causal effect of perceived social instability on nostalgia. Second, we establish that such societal threats do not enhance all forms of nostalgia equally. We show that under system threat, consumers show a greater preference for only those retro products that have high cultural associations. Finally, we identify the underlying psychology and show that the ability of certain retro products to provide a sense of stability and permanence mediates the effect of system threats on communal nostalgia.

Also see Appendix 1E, wherein we directly compare the effect of system threat versus mortality threat, which is an established antecedent of personal nostalgia (Juhl et al., 2010) and thereby show that communal nostalgia and personal nostalgia are indeed distinct phenomena with distinct antecedents.
Our research directs attention to an interesting question for future research, which concerns exploring moderators of the effect of system threat on communal nostalgia. For example, in Study 3, we found that religiosity significantly interacted with the effect of system threat on expected enjoyment of retro products, such that the effect of system threat was stronger for religious individuals. This result is consistent with research that found religiosity as strongly associated with endorsement of current social institutions (Jost et al., 2014). Analogously, another variable that is positively associated with system justifying tendency is political conservatism (Napier and Jost, 2008). Future research may endeavor to explore individual difference measures such as religiosity and political ideology as potential moderators of communal nostalgia.

Additionally, future research could explore how different types of retrospective consumption may interact with one another. For example, products may be old (vintage), may be new but use outdated technologies, or may only appear “retro”; additionally, consumers themselves may have personal associations, communal associations, or both, with those products. Our work importantly demonstrates that with respect to communal and personal nostalgia per se, different psychological forces are at work. Future research could create a more structured taxonomy of how different forms of nostalgia are psychologically similar and distinct.

In terms of practical implications, the present studies suggest several marketing strategies. One approach may be for marketers to directly frame retro products as stable and unchanging. For instance, a company could frame a stovetop kettle as having “transcended time and endured changes in society,” making stability a salient attribute. Additionally, by understanding the distinct antecedents of communal nostalgia and personal nostalgia, marketers could more accurately understand the symbolic value of their products. For example, marketers could discern whether the majority of their target audience has personal experience with the product or not (personal
nostalgia) and assess the extent to which their product is seen as associated with the communal past. If products are seen as personally nostalgic by most consumers, marketers may benefit from messages that emphasize social bonds, empathy, and self-concepts. If products are seen as communally nostalgic, marketing messages that emphasize the immutability of those products may be more successful.

In sum, the current studies find that consumers may be drawn to communally-nostalgic products when they feel that their broader social system is threatened. Our research demonstrates the causal link between system justification and communal nostalgia and thereby contributes to a more fine-grained understanding of the psychological motivations and values underlying various forms of retrospective preferences and nostalgia.
REFERENCES


ESSAY 2

The Curse of the Original:

How and When Heritage Branding Limits Demand for Product Enhancements
ABSTRACT

Heritage branding is a common marketing strategy that has been shown to increase product appeal. Here, we find that heritage branding can also have potentially negative consequences by leading consumers to resist product changes—even changes that objectively improve a product. Across four studies, we show that when firms engage in heritage branding, product enhancements can decrease perceptions of brand authenticity, leading consumers to evaluate enhanced products less favorably than the original versions of those same products. We demonstrate this effect across a variety of product domains (e.g., cosmetics, cookware, and food products), using online experiments as well as in-person product trials. Moreover, we provide a framework that distinguishes between elements of heritage branding that lead to negative evaluations of product enhancements versus those that do not. Finally, beyond identifying an important boundary condition based on specific aspects of heritage branding, we further show how the negative effects of product enhancements can be ameliorated if brands reframe product enhancements as continuous with the brand’s origins. Together, these studies contribute to existing theory regarding heritage branding and authenticity, while also providing a number of practical recommendations for heritage brands.

Keywords: heritage branding, product enhancements, authenticity
One of the curses of having an icon is a fear...of doing any changes.

- Jim Calhoun, CEO of Converse, 2015

Converse Chuck Taylor All Stars (or, “Chucks”) were first introduced in 1917 and are some of the best-selling shoes of all time (Powell 2019). Converse’s messaging around the shoe often highlights the brand’s long-standing history and the fact that the basic design of the shoe has remained unchanged for over a century. However, this consistency in design has also been a source of criticism—the shoes are notoriously uncomfortable, responsible for “a billion sore feet” (Townsend 2015). In 2015, Converse released the Chuck IIs, which looked very similar to the original Chucks (see figure 2.1) but featured a number of enhancements, such as a thicker insole, more padding, and elastic bands to keep the tongue in place. Despite these functional benefits, Chuck IIs were a commercial flop. In fact, following the release of the Chuck IIs, Converse’s sales decreased for the first time in four years. Shortly thereafter, Chuck IIs were discontinued, and Jim Calhoun was replaced as the CEO (Townsend and Very 2016). Thus, products like Chuck Taylor All Stars can face a potential “curse,” wherein the promotion of a valued aspect of a product’s history can result in consumer resistance to product enhancements.

FIGURE 2.1
CONVERSE PRINT ADVERTISEMENT (2015)
The current article examines this phenomenon, particularly how and when heritage branding can negatively affect consumer perceptions. Heritage branding is broadly defined as communication that highlights a brand’s history and values (Urde, Greyser, and Balmer 2007). For example, marketers may highlight how long the brand has existed, the brand’s core values, or the founding-family ownership to establish brand heritage. Heritage branding is often a successful marketing strategy that has been shown to increase product appeal (Urde et al. 2007; Wuestefeld et al. 2012), brand loyalty (Urde et al. 2007), and trust in the brand (Leigh, Peters, and Shelton 2006; Wiedmann et al. 2011).

Here, however, we demonstrate that heritage branding can also have potentially negative consequences by leading consumers to resist product changes—even changes that objectively improve a product. Specifically, we show that when firms engage in heritage branding, product enhancements can decrease perceptions of authenticity, leading consumers to rate enhanced products less favorably than the original versions of those same products. This occurs because heritage branding that emphasizes the brand’s longevity can increase the extent to which consumers assess authenticity with respect to a brand’s origins. Enhancements disrupt the brand’s perceived connection to its origins, thus decreasing authenticity through lowered perceptions of continuity.

Beyond documenting this basic effect and the underlying mechanism, we also show that heritage branding does not always depend on maintaining authenticity through continuity. When heritage branding emphasizes the brand’s values rather than the brand’s longevity, consumers are more likely to assess authenticity with respect to perceptions of integrity, and thus, product enhancements are more likely to have their intended positive effect on product evaluations. Thus, we identify two distinct routes through which heritage branding can impact perceptions of
authenticity (continuity versus integrity), which in turn, hold different implications for how product enhancements are evaluated.

The current research has several theoretical and practical implications. First, across four studies using several realistic brands, products, and advertisements, we document a novel negative effect of heritage branding on evaluations of product enhancements. This is in contrast to existing work on heritage branding, which has tended to focus on its positive effects (Leigh et al. 2006; Urde et al. 2007; Wiedmann et al. 2011; Wuestefeld et al. 2012). Second, while prior research has investigated how consumers evaluate product enhancements with respect to usability or functionality (e.g., Mukherjee and Hoyer 2001; Nowlis and Simonson 1996), the present studies demonstrate how enhancements may be evaluated with respect to perceived authenticity (Ariely and Norton 2009; Fuchs, Schreier, and van Osselaer 2015; Newman and Dhar 2014). Third, we contribute to existing research on heritage branding and authenticity by providing a framework that distinguishes between perceptions of continuity versus integrity. This is important because we find that some, but not all, heritage cues make the perceived connection to the brand’s origin a relevant dimension of brand authenticity.

In terms of practical implications, the current studies provide specific, empirically-grounded recommendations for how heritage brands can avoid negative consumer reactions if they decide to update or improve their products. In particular, we identify which heritage cues brands should highlight if they intend to enhance or change their long-standing products, as well as which they should avoid. We also identify which dimensions of authenticity are negatively impacted by product enhancements, and which remain relatively intact. Furthermore, we show how the negative effects of product enhancements can be ameliorated if brands reframe product
enhancements as consistent with the brand’s origins, for example, by using messaging that emphasizes continuity with the original founder’s intentions.

In the remainder of the article, we first review the literature on heritage branding. We then review research on product enhancements, which leads to our predictions about the conditions under which heritage branding may lower evaluations of product enhancements via decreased perceptions of authenticity. Finally, we report the results of four studies, which test our theorizing and identify key boundary conditions.

THEORETICAL BACKGROUND

Heritage Branding

Heritage branding is often defined as communication that highlights a brand’s history and values. For example, Urde et al. (2007) define brand heritage as “a dimension of a brand’s identity found in its track record, longevity, core values, use of symbols, and particularly in an organizational belief that its history is important.” Relatedly, Hakala, Lätti, and Sandberg (2011) define brand heritage as “a composite concept incorporating the history of the brand in numbers of years of operation and the power of the brand story over time, as well as the consistency and continuity of the core values, the product brands, and the visual symbols” (p. 454). Heritage branding is employed across a variety of industries and products, ranging from $50 sneakers to $50,000 watches, and seems to be only growing in popularity as brands try to find new ways to differentiate themselves in an increasingly crowded marketplace (Perman 2016; Urstadt 2015).
A number of researchers have sought to better understand the respective elements of heritage branding. Some researchers have used experimental methods to isolate specific aspects of heritage branding and identify the downstream effects on consumer perceptions. For example, Rose et al. (2016) asked participants to read about a hypothetical brand and manipulated a number of factors, including the presence of an established date, whether the company was known for a signature product, and whether the brand was independently-based in a small village (or was part of a multinational corporation). When such heritage cues were present, participants reported higher levels of trust and positive emotions toward the brand, which led to an increase in purchase intentions (ibid). Related work by Pecot et al. (2018) manipulated the heritage branding of a fictional brand via company bios that included a black and white photo of an older building (versus a more modern building) and a logo in a traditional (versus modern) font. Pecot et al. (2018) found that the presence of those heritage cues increased perceptions of brand credibility and willingness to pay for the brand’s product.

Qualitative and CCT approaches have mostly focused on case studies of prominent heritage brands to identify common trends and best practices. For example, brands like Anheuser-Busch focus on longevity and multigenerational family ownership (Brughausen and Balmer 2014; Urde et al. 2007; Wiedmann et al. 2011; Wuestfeld et al. 2012). For luxury brands, such as Tiffany & Co. or Burberry, heritage branding involves the use of certain colors and visual motifs that communicate status and pedigree (Benson 2005; Beverland 2006; Cooper, Miller, and Merrilees 2015). Heritage brands have also been proposed to be those that align themselves with sincerity characteristics (Aaker 1996; Liebrenz-Himes, Shamma, and Dyer 2007) and a set of core values (Urde et al. 2007; Wuestfeld et al. 2012). Such approaches have resulted in a number of different frameworks. For example, one influential framework by Urde et
al. (2007) proposes five key elements of brand heritage including longevity, the use of symbols (such as black-and-white imagery and traditional fonts), having core values, having a proven track record (i.e., living up to consumer expectations over time), and the organizational belief that history is important to the firm’s identity.

In sum, heritage branding is a multifaceted concept that has been found to be associated with several positive consequences. To date, however, little work has examined when this marketing strategy leads to unintended negative effects on consumer behavior. Furthermore, the psychological mechanisms linking different heritage cues to consumer perceptions are rather undifferentiated. For example, heritage branding has been commonly operationalized using a set of cues such as family ownership, longevity, and black and white images, which together led to positive consumer reactions such as increased liking, trust, and perceptions of brand credibility (Pecot et al. 2018; Rose et al. 2016; Wiedman et al. 2011). However, no work, as far as we are aware, has explored how different heritage cues may engender different expectations from consumers, which, in turn, may affect product evaluations in both desirable and undesirable ways. This necessitates a more nuanced approach to understanding the psychological relationships between the different elements of heritage branding and consumer perceptions. The present studies explore these issues in the context of consumers’ evaluations of product enhancements.

Product Enhancements and Evaluations of Authenticity

Prior research on product enhancements has largely found positive effects on consumers’ evaluations. Not only are enhancements generally regarded favorably (e.g., Carpenter, Glazer,
and Nakamoto 1994; Meyers-Levy and Tybout 1989; Mukherjee and Hoyer 2001; Nowlis and Simonson 1996), but often, consumers may seek out products with enhanced features even if they know little about the benefits of those features. For example, Mukherjee and Hoyer (2001) found that adding a novel feature to a familiar product increased product appeal even when the specific function of the feature was unknown (also see Nowlis and Simonson 1996).

There are a few cases in which product enhancements have been shown to have negative effects. For example, Mukherjee and Hoyer (2001) found that when a product is already complex, the addition of more features can overwhelm consumers. Thompson, Hamilton, and Rust (2005) investigated a related phenomenon called “feature fatigue,” where they show that additional features may create confusion and decrease usability during consumer use. As a whole, however, prior work has shown that enhancements generally increase product evaluations either because of inferences about improved functionality or increased attention and engagement. We suggest that, for heritage brands, the negative reaction to product enhancements has less to do with inferences about the quality or usability of the product itself but is instead related to perceptions of the brand’s authenticity.

Although the construct of authenticity is subject to a variety of definitions and meanings (Beverland, Lindgreen, and Vink 2008; Carroll 2015; Carroll and Wheaton 2009; Grayson and Martinec 2004; Morhart et al. 2015; Newman and Smith 2016; Reisinger and Steiner 2006; Rose and Wood 2005), there is a general consensus that perceptions of authenticity often emerge from a verification process (Newman and Dhar 2014). For example, a Louis Vuitton handbag is authentic if consumers can verify that it was indeed made by Louis Vuitton. In this case, perceptions of authenticity are derived from information regarding the purported manufacturer.
We theorize that, in the context of heritage branding, this verification process is informed by the brand’s perceived connection to its origins. This reasoning aligns with prior work that has found that consumers tend to view the brand’s origin as possessing the “essence” of the brand (Newman and Dhar 2014; Smith, Newman, and Dhar 2016). We propose that heritage branding heightens this association and leads consumers to specifically align the identity of the brand with its origins. Product changes or enhancements disrupt the brand’s perceived connection to its origins and thereby decrease authenticity through lowered continuity perceptions. Thus, when brand heritage is made salient, consumer evaluations of a product may depend less on its functional capabilities and more on the extent to which consumers think that the brand’s authenticity has been preserved through the product’s connection to its origins.

Critically, however, we predict this relationship will hold only when certain kinds of heritage cues are highlighted. As noted above, authenticity can have different meanings in different contexts (Beverland and Farrelly 2009; Grayson and Martinec 2004; Newman 2019; Newman and Dhar 2014). To organize these meanings, we draw on a framework proposed by Morhart et al. (2015), which describes four different dimensions of brand authenticity. These include continuity, integrity, credibility, and symbolism. The dimension of continuity (hereafter referred to as continuity authenticity) is most closely related to the current investigation and refers to whether a brand is perceived as stable and unchanging over time (e.g., “Brand A seems like a timeless brand”). Integrity, by contrast, is the perception that a brand is motivated by deeply held morals or values (e.g., “Brand A seems like a brand with moral principles”). Credibility refers to the perception that a brand is trustworthy, while symbolism refers to the perception that a brand can serve as a resource for consumer self-authentication (e.g., “Brand A connects people with their real selves”).
While continuity authenticity naturally aligns with our core reasoning, we also theorize that certain brand heritage cues may lead consumers to evaluate authenticity with respect to dimensions other than continuity. Specifically, heritage cues such as family-ownership or having a set of core values may be more strongly related to perceptions of the brand’s integrity. In these cases, we predict that heritage branding will be less likely to lead consumers to assess brand authenticity with respect to continuity, and thus, product enhancements may be more likely to positively impact product evaluations.

It is important to note that although this work is, to our knowledge, the first to directly examine how evaluations of product enhancements are impacted by perceptions of brand authenticity, there are several articles that lend support to our core proposal. For example, in music, qualitative research has discussed the importance of the original performance or recording (Davies 1987; Peterson 1997); in the wine industry, consumers place a premium on original production methods (Beverland 2005); and in tourism, consumers seek to connect to the original, historical roots of an experience (Belk and Costa 1998; Chhabra, Healy, and Sills 2003). The current studies extend this research by examining how perceptions of authenticity are moderated by different forms of heritage branding. That is, unlike research that has examined authenticity solely as a mechanism underlying consumer evaluations of brands (Spiggle, Nguyen, and Caravella 2012), we examine how heritage branding moderates the relative importance of brand authenticity and how it interacts with consumer evaluations of enhanced versus original products. Additionally, we provide a more nuanced understanding of authenticity effects by focusing on continuity authenticity and contrasting it against other authenticity dimensions. That is, we can identify the specific conditions under which product enhancements may be evaluated negatively by consumers.
OVERVIEW OF STUDIES

Study 1 identified which heritage cues are most strongly related to perceptions of continuity authenticity. In so doing, we discovered that heritage branding impacts perceptions of authenticity through two distinct routes: some heritage branding cues selectively affect the extent to which the brand is seen as timeless (perceptions of continuity authenticity), while other heritage cues selectively affect the extent to which the brand is perceived as possessing deeply held values (perceptions of integrity authenticity).

Study 2 then examined evaluations of an actual product in the lab, showing that heritage branding moderates whether consumers rate the enhanced version of a product less favorably than the original version. This study demonstrates that not only does heritage branding lead an enhanced product to be rated less favorably than the original version of that same product; it also leads the enhanced product from a heritage brand to be rated less favorably than an analogous enhanced product from a non-heritage brand.

Study 3 explored the underlying mechanism as well as a key boundary condition. Here we found that participants rated the enhanced product negatively only when the firm highlighted heritage cues associated with longevity, but not when the firm highlighted heritage cues associated with its values. This study also used mediation analyses to demonstrate that the negative effect of product enhancements on consumer evaluations is explained by decreases in perceived continuity authenticity.

Study 4 explored an additional boundary condition. Specifically, we theorize that the negative effect of product enhancements occurs because product changes disrupt the perceived
connection with the brand’s origin. Therefore, we predicted that when the enhancement is reframed as consistent with the brand’s origins, the negative effect should be attenuated. Supporting this prediction, study 4 found that heritage brands can circumvent negative evaluations of enhanced products by reframing those enhancements as consistent with the original founder’s intentions.

**STUDY 1: HERITAGE CUES AND AUTHENTICITY PERCEPTIONS**

The goal of study 1 was to investigate which commonly used heritage cues lead consumers to assess brand authenticity with respect to continuity perceptions. We theorized that certain types of heritage cues (but not all) will lead continuity authenticity to be more central to product evaluations, resulting in negative evaluations of product changes or enhancements. Other heritage cues, however, may be less likely to align authenticity with continuity and, thus, will be less likely to result in negative evaluations of enhancements. To distinguish between these cues, we began by reviewing the existing literature on heritage branding to identify the different heritage cues discussed in previous research (Balmer and Hudson 2013; Desai, Kalra, and Murthi 2008; Dion and Mazzalovo 2016; Liebrenz-Himes et al. 2007; Pecot et al. 2018; Rindell, Santos, and de Lima 2015; Rose et al. 2016; Urde et al. 2007; Wiedman et al. 2011; Wuestfeld et al. 2012).

Based on our literature review, we elected to focus on six types of heritage branding cues: these included duration (i.e., the company has been in business for a long time), original location (i.e., the company operates in the same location where it was founded), family-ownership (i.e., the company is family-owned), core values (i.e., the company is guided by a set
of core values), *symbols* (e.g., black and white imagery), and *signature product* (i.e., the company is known for manufacturing a particular product).

Our aim was to identify which of these heritage cues are most strongly related to perceptions of continuity authenticity. This was accomplished by using the Perceived Brand Authenticity scale (hereafter referred to as PBA; Morhart et al. 2015), which is a reliable and validated 15-item scale designed to measure the extent to which consumers view a particular brand as authentic. The PBA scale is composed of four subscales, which reflect different dimensions of brand authenticity: continuity, integrity, credibility, and symbolism.

In study 1a, we told participants about a hypothetical brand and, between-subjects, manipulated the presence (or absence) of each of the six heritage cues mentioned above. After reading about the brand, all participants completed the full 15-item PBA scale, which was later analyzed to identify which of the six heritage cues uniquely affected ratings on the continuity subscale. The results of study 1a suggested that indeed, some of the heritage cues that we manipulated (duration and a signature product) appeared to have greater effects on perceptions of continuity authenticity (compared to the other authenticity dimensions). We refer to these cues as “longevity” heritage cues. Interestingly, we also observed that the other three dimensions of authenticity (integrity, credibility, and symbolism) patterned together to form a single factor, with integrity emerging as the most salient dimension within this factor, and a different set of heritage cues appeared to affect that factor. We refer to the heritage cues that selectively affected integrity authenticity (along with credibility and symbolism) as “values” heritage cues.

In the follow-up study 1b, we collapsed the “longevity” heritage cues versus the “values” heritage cues to create short company bios that varied on whether they were high (vs. low) in longevity and high (vs. low) in values. Using these more naturalistic stimuli in tandem with the
PBA scale, we replicated the dissociation between continuity authenticity and integrity authenticity. Thus, study 1b served as a confirmatory test of the patterns identified in study 1a.

**STUDY 1A**

Method

We recruited 599 participants ($M_{age} = 39.0$; 58.1% female) from Prolific (Prolific.ac). Data and stimuli for all studies are posted on OSF6. Participants were randomly assigned to one of 12 conditions in a 6 (heritage cue type: duration, signature product, family-ownership, original location, core values, symbols) X 2 (salience: present vs. absent) between-subjects design.

Participants were informed that they would read information about a brand (which we always referred to as “Brand A”) and answer a few questions about it. On the next page, participants read a brief sentence about Brand A (table 2.1 details the manipulation used for each heritage cue). Then, all participants rated the brand on the 15-item PBA scale (see table 2 for individual items; Morhart et al. 2015). For each scale item, participants responded using a 9-point scale (1 = Strongly Disagree, 9 = Strongly Agree). Additionally, given that participants were provided with very little information about the brand, they were also given the option to select “I do not have enough information to answer.”

**TABLE 2.1**
MANIPULATIONS OF BRAND HERITAGE IN STUDY 1A

<table>
<thead>
<tr>
<th>Cue</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Duration</strong></td>
<td>Brand A has existed for many decades.</td>
<td>Brand A was founded only recently.</td>
</tr>
<tr>
<td><strong>Signature product</strong></td>
<td>Brand A is well-known for its signature product, which has remained unchanged.</td>
<td>Brand A is still trying to develop its signature product and is currently experimenting with many</td>
</tr>
</tbody>
</table>

6 https://osf.io/tqu45/?view_only=22bd667723954036888eeb2ec287c415
43

**Symbols (B&W photo)**

This is a photograph featured on the brand's website:

- Brand A is family-owned and operated.
- Brand A is guided by a set of core values.
- Brand A manufactures its products in the same place that it was founded.
- Brand A is owned by an outside investment group.
- Brand A changes its mission and approach to remain competitive.
- Brand A manufactures its products overseas.

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**Results and Discussion**

We first conducted a factor analysis (Varimax rotation) of the 15 PBA items to identify the latent structure among the dependent variables. This analysis indicated that the items formed two reliable factors with Eigenvalues > 1, which together accounted for 81% of the variance in scores. The first factor consisted of the four items that measured continuity authenticity. The second factor consisted of the other eleven items, with the integrity subscale items having the highest factor loadings (see table 2.2). Based on this analysis, we averaged the items that loaded onto the first factor to create an index of continuity authenticity ($\alpha = .95$) and averaged the items that loaded onto the second factor to create an index, which we labeled integrity authenticity (since the integrity subscale items had the highest loadings on that factor; $\alpha = .95$). Instances in which participants indicated that they did not have enough information to answer were omitted pairwise, so that we were able to use all available responses. Of note, the results of study 1a replicated using just the 4-item continuity authenticity and 4-item integrity authenticity PBA subscales (see appendix 2G).

**TABLE 2.2**
FACTOR ANALYSIS RESULTS OF PBA ITEMS

Rotated Component Matrix

<table>
<thead>
<tr>
<th>Component</th>
<th>Original Assignment (Morhart et al. 2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Factor 1</td>
</tr>
<tr>
<td>Brand A seems like a brand that survives times.</td>
<td>0.90</td>
</tr>
<tr>
<td>Brand A seems like a brand with a history.</td>
<td>0.86</td>
</tr>
<tr>
<td>Brand A seems like a brand that survives trends.</td>
<td>0.86</td>
</tr>
<tr>
<td>Brand A seems like a timeless brand.</td>
<td>0.85</td>
</tr>
<tr>
<td>Brand A seems like a brand that cares about consumers.</td>
<td>0.28</td>
</tr>
<tr>
<td>Brand A seems like a brand that is true to a set of moral values.</td>
<td>0.28</td>
</tr>
<tr>
<td>Brand A seems like a brand that connects people with what is really important.</td>
<td>0.23</td>
</tr>
<tr>
<td>Brand A seems like a brand with moral principles.</td>
<td>0.25</td>
</tr>
<tr>
<td>Brand A seems like a brand that reflects important values that people care about.</td>
<td>0.31</td>
</tr>
<tr>
<td>Brand A seems like a brand that gives back to its consumers.</td>
<td>0.27</td>
</tr>
<tr>
<td>Brand A seems like a brand that connects people with their real selves.</td>
<td>0.31</td>
</tr>
<tr>
<td>Brand A seems like a brand that adds meaning to people's lives.</td>
<td>0.37</td>
</tr>
<tr>
<td>Brand A seems like an honest brand.</td>
<td>0.42</td>
</tr>
<tr>
<td>Brand A seems like a brand that will not betray you.</td>
<td>0.41</td>
</tr>
<tr>
<td>Brand A seems like a brand that delivers on its promises.</td>
<td>0.55</td>
</tr>
</tbody>
</table>

We then conducted an omnibus 6 X 2 X 2 repeated-measures ANOVA using cue type and cue salience as between-subjects factors, and the type of authenticity (continuity authenticity vs. integrity authenticity) as a within-subjects factor. This analysis indicated a significant three-way interaction, $F(5, 380) = 26.05, p < .001, \eta^2 = .26.$

For each heritage cue, we then examined the effects of cue salience (high vs. low) on the two authenticity dimensions. The results of this analysis are reported in table 2.3. In sum, we found that the cues of duration and having a signature product had larger effects on perceptions of continuity authenticity than on integrity authenticity. In contrast, the cues of family ownership and core values had larger effects on perceptions of integrity authenticity. As manipulated here, the original location cue had roughly equivalent effects on continuity authenticity and integrity authenticity, while the use of symbols (black and white versus color photographs) had minimal effects on both dimensions.
These results suggested two different routes through which heritage cues can affect perceptions of authenticity: continuity versus integrity. In particular, we found that duration and signature product cues selectively affected perceptions of continuity authenticity (we refer to these cues as longevity cues, hereafter). In contrast, family ownership and core values cues selectively affected perceptions of integrity authenticity. We refer to these cues as values cues. To explore these patterns further, study 1b combined the heritage cues to create vignettes that varied on longevity (high vs. low) and values (high vs. low) cues.

**STUDY 1B**

Method

Based on the patterns identified in study 1a, we combined the heritage cues to form a set of company bios. Specifically, the heritage cues tested in study 1a appeared to cluster into either longevity cues or values cues. Therefore, we created four vignettes that manipulated the type of cue (longevity vs. values) and whether that cue type was present or absent. These vignettes were as follows:
[High Longevity / High Values]

Brand A was originally founded many years ago. It is well-known for its signature product and style, which has remained unchanged.

Brand A is also family-owned and operated. It manufactures all of its products in the hometown, where it was founded and remains committed to its original set of core values.

[High Longevity / Low Values]

Brand A was originally founded many years ago. It is well-known for its signature product and style, which has remained unchanged.

Recently, however, Brand A was purchased by an outside investment group with a new mission and market strategy. Although the brand maintains the highest quality standards, it now manufactures its signature products overseas.

[Low Longevity / High Values]

Brand A is family-owned and operated. It manufactures all of its products in the hometown, where it was founded and remains committed to its original set of core values.

However, Brand A was founded only recently. It is still trying to develop its signature product and style and is currently experimenting with many different types of offerings and methods of manufacturing.
[Low Longevity / Low Values]

Brand A is owned by an outside investment group. The brand was founded recently with a new mission and market strategy. Although the brand maintains the highest quality standards, all of its products are manufactured overseas.

Brand A is still trying to develop its signature product and style and is currently experimenting with many different types of offerings and methods of manufacturing.

We recruited a new group of 405 participants ($M_{\text{age}} = 40.35$; 49.4% female) from Amazon’s Mechanical Turk. Participants were randomly assigned to read one of four vignettes above in a 2 (longevity cues: high vs. low) X 2 (values cues: high vs. low) between-subjects design. Participants then completed the 15-item PBA scale, which was administered in the same manner as study 1a.

Results and Discussion

We first conducted a factor analysis (Varimax rotation) of the 15 PBA items (see appendix 2F for details). This analysis indicated that the items again formed two factors, which together accounted for 83% of the variance in scores. Based on this analysis, we averaged the items that loaded onto the first factor to create a measure of continuity authenticity ($\alpha = .94$) and the items that loaded onto the second factor to create a measure of integrity authenticity ($\alpha = .96$). Instances in which participants indicated that they did not have enough information to
answer were omitted pairwise so that we were able to use all available responses. Of note, the results of study 1b replicated using the original 4-item continuity authenticity and 4-item integrity authenticity PBA subscales (see appendix 2H).

We then conducted an omnibus 2 X 2 X 2 repeated-measures ANOVA using longevity cues (high vs. low) X values cues (high vs. low) as between-subjects factors, and the type of authenticity (continuity authenticity vs. integrity authenticity) as a within-subjects factor. This analysis indicated a significant two-way interaction between the manipulation of longevity cues (high vs. low) and the type of authenticity, $F(1,382) = 402.83, p < .001, \eta^2_p = .51$, and a significant two-way interaction between the manipulation of values cues (high vs. low) and the type of authenticity, $F(1,382) = 84.32, p < .001, \eta^2_p = .18$ (see figure 2.2). There was no significant three-way interaction, $F(1,382) = 3.15, p = .08$.

*Ratings of continuity authenticity.* For continuity perceptions, 4.0% of participants indicated that there was not enough information to answer any of the four items in the subscale. Of the remaining participants, an ANOVA revealed a main effect of longevity cues on continuity authenticity ($M_{\text{high-longevity}} = 7.47, SD = 1.33$ vs. $M_{\text{low-longevity}} = 4.12, SD = 2.24$); $F(1,385) = 335.67, p < .001, \eta^2_p = .47$. In contrast, the manipulation of values cues did not have a significant effect on continuity authenticity ($M_{\text{high-values}} = 5.91, SD = 2.68$ vs. $M_{\text{low-values}} = 5.74, SD = 2.26$); $F(1,385) = 3.44, p = .064$.

*Ratings of integrity authenticity.* For integrity perceptions, 1.7% of participants indicated that there was not enough information to answer any of the eleven items in the subscale. Of the remaining participants, an ANOVA revealed a main effect of values cues on integrity authenticity ($M_{\text{high-values}} = 7.02, SD = 1.22$ vs. $M_{\text{low-values}} = 5.13, SD = 1.72$); $F(1,394) = 161.73, p$
< .001, \( \eta_p^2 = .29 \)), while manipulation of longevity cues had no effect (\( M_{\text{high-longevity}} = 6.04, SD = 1.98 \) vs. \( M_{\text{low-longevity}} = 6.11, SD = 1.52; F(1,394) = 0.01, p = .95 \)).

**FIGURE 2.2**
THE EFFECTS OF LONGEVITY VERSUS VALUES HERITAGE CUES ON EACH AUTHENTICITY DIMENSION

Study 1b confirmed the patterns identified in study 1a using a more ecologically valid set of stimuli. When participants were asked to rate the hypothetical brands on the PBA scale, we found that the longevity cues selectively affected ratings of continuity authenticity, while the values cues affected ratings of integrity authenticity. Interestingly, we did not observe spillover effects from one type of cue (e.g., longevity) to multiple forms of authenticity, suggesting that in the context of heritage branding, continuity authenticity and integrity authenticity appear to be distinct dimensions. Together, studies 1a and 1b identified which heritage cues make continuity perceptions salient in subsequent assessments of brand authenticity. In the following studies, we examine how the use of such heritage cues differentially influence evaluations of product enhancements.\(^7\)

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\(^7\) Given that the integrity subscale items of the PBA scale had the highest loadings on the second factor and that the pattern of results for study 1a and 1b replicated using four original integrity subscale items (appendix 2G and 2H), we use the 8 items that were included in the original continuity and integrity PBA subscales (rather than the full 15-item PBA scale) in subsequent studies.
STUDY 2: EVALUATIONS OF ENHANCED PRODUCTS

The aim of study 2 was to examine our core phenomenon of interest. Specifically, study 2 tested whether the use of heritage branding can reduce consumers’ evaluations of enhanced products. To examine this, we recruited participants to a campus laboratory to sample an actual product. Before sampling the product, participants read a company bio, which manipulated whether the company was positioned as a heritage brand. This manipulation of heritage branding was based on the longevity heritage cues identified in study 1.

After viewing the brand advertisement, participants were asked to try the product, which was described as using the brand’s original formula (original product condition) or a new and improved formula (enhanced product condition). Importantly, all participants sampled the same product. Consistent with our theorizing that heritage branding aligns authenticity with perceptions of continuity, we predicted that the enhanced product would be evaluated less favorably than the original product in the heritage brand conditions. However, in the control conditions, we predicted the opposite effect, where participants would rate the enhanced product more favorably than the original product. This was based on prior work showing that consumers tend to respond positively to product enhancements (e.g., Meyers-Levy and Tybout, 1989; Nowlis and Simonson 1996).

Furthermore, this experiment manipulated both heritage branding (versus control) and product type (original versus enhanced) in a fully-between design. This is important because while previous research suggests that heritage branding can increase consumer interest in original products (Urde et al. 2007; Wiedmann et al. 2011; Wuestefeld et al. 2012), it is unclear
how heritage branding may affect consumer responses to enhanced products. It could be, for example, that while heritage branding makes the original product more attractive, it also has positive spillover effects to the enhanced product.

Finally, this design also allowed us to address an important alternative explanation. It could be that enhancements lower product evaluations for heritage brands because consumers infer that if a product has remained unchanged for a long time, then it must be high quality. In other words, heritage branding enhances the desire for the original product through higher quality perceptions. To test for this alternative explanation, we examined whether evaluations of the enhanced product from the heritage brand were lower than evaluations of the enhanced product from the control brand. Given that the enhanced products in both the heritage and control brand conditions are new, a quality inference account would predict that both products would be seen as equally desirable. However, our authenticity account predicts that the enhanced heritage brand product would be evaluated less favorably than the enhanced product from the control brand. Thus, we compare the ratings of the enhanced product from the heritage brand to the enhanced product from the control brand in order to distinguish between an explanation stemming from quality inferences versus an explanation based on authenticity perceptions.

Method

We recruited 416 participants to a university laboratory. Participants were randomly assigned to one of four conditions in a 2 (brand type: heritage vs. control) X 2 (product type: original vs. enhanced) between-subjects design. Participants completed the survey in individual testing rooms with a laptop and a product sample placed on a desk (see figure 2.3).
All participants were first asked to read about a cosmetics brand Réve (the brand and product were fictional, which was not disclosed to participants). Based on the finding of study 1, we manipulated brand heritage via drawing from the longevity cues. Specifically, we manipulated duration by providing different establishment dates between the heritage (established in 1917) and control (established in 2017) conditions. We decided to provide establishment dates in both the heritage and control conditions to reduce the extent to which participants in the control condition would make different inferences about the actual age of the company. In keeping with this aim, we also varied company bios in terms of their use of traditional (vs. modern) fonts and black and white (vs. color) images (see appendix 2C for all stimuli). Although black and white imagery had minimal effects on continuity authenticity in study 1, we used these visual cues to reinforce the manipulation of longevity.

The text presented across the two conditions was as follows [heritage condition text in brackets]:

Our Brand [Our Heritage]
Armand Petitjean’s passion for formulating the perfect skin-healing cream started recently [has deep roots in the old-world French apothecary]. Armand suffered burns on his left hand while working as a biochemist in his laboratory [an apprentice pharmacist], and that changed his life forever. He could not find anything to heal his scorched skin and spent 5 years searching for a formula that heals and optimizes skin function. When Armand finally discovered his skin-healing formula, he founded his own beauty house, Rêve, in 2017 [1917].

Since its founding in 2017 [1917], the brand has focused on developing its expertise in skincare products.

On the same page, we included an attention check question, which asked, “What year was Reve founded?” The options were: 1917, 2017, or “don’t know.”

*Heritage Brand Pretest.* To ensure that these different company bios successfully manipulated perceptions of brand heritage, we recruited 100 participants from Prolific ($M_{\text{age}} = 33.5$; 64% female) and randomly assigned them to read the company bios presented in either the heritage condition or the control condition. Participants then rated the extent to which they agreed with the following statement: “I consider Rêve to be a heritage brand” (1 = Definitely Disagree, 9 = Definitely Agree). Indeed, we found that Rêve was perceived as a heritage brand significantly more in the heritage condition compared to the control condition ($M_{\text{heritage}} = 7.54$, $SD = 1.36$ vs. $M_{\text{control}} = 3.92$, $SD = 2.22$); $t(98) = 9.83$, $p < .001$, $\eta^2_p = .50$.

*Continuity Authenticity Pretest.* To ensure that we selectively manipulated perceptions of continuity authenticity, we recruited 100 participants from Prolific ($M_{\text{age}} = 38.4$, 61% women) and
had them read the brand bios in the heritage and control conditions. Then, participants completed the continuity ($\alpha = .88$) and integrity subscales ($\alpha = .88$) of the PBA (items were presented in randomized order). We confirmed that the brand bio used in heritage condition was rated as significantly higher on continuity authenticity than the bio used in the control condition ($M_{\text{heritage}} = 6.94, SD = 1.11$ vs. $M_{\text{control}} = 5.91, SD = 1.71$); $t(98) = 3.50, p = .001, \eta^2_p = .11$. However, the two brand bios did not significantly differ on integrity authenticity ($M_{\text{heritage}} = 6.36, SD = 1.10$ vs. $M_{\text{control}} = 6.63, SD = 1.31$); $t(98) = 1.07, p = .29$.

Participants in the main experiment then read that the sample product (placed on the table in front of them) was either the original formula or an enhanced formula (the language was modeled on real-world examples). Participants in the original product condition read the following [heritage condition text in brackets]:

This is Crème pour les mains™. This hand cream uses the original formula that was developed when the company was founded in 1917 [2017].

Crème pour les mains™ instantly nourishes and moisturizes dry hands, protecting against daily damage.

Participants in the enhanced product condition read the following [heritage condition text in brackets]:

This is the new and improved Crème pour les mains ADVANCED™. It recently replaced Crème pour les mains™, the original hand cream that was developed when the company
was founded in 1917 [2017]. The new hand cream uses a newly developed formula that
draws on the latest scientific research.

Crème pour les mains ADVANCED™ instantly nourishes and moisturizes dry hands,
protecting against daily damage.

Below the product descriptions, participants completed a second attention check
question: “The product you are going to sample today is…” and participants responded either:
(a) “a hand cream that uses the brand’s original formula, which has not been changed since the
brand’s founding” or (b) “a hand cream that uses the brand’s newly developed formula that has
replaced the brand’s original formula.”

All participants were then asked to sample the hand cream and rate it along several
dimensions. The first four measures were taken from Argo and Dahl (2018) and measured
ratings of the product: To what extent was your overall impression of the hand cream favorable
(vs. unfavorable)? (1 = Unfavorable, 9 = Favorable); To what extent was your overall impression
of the hand cream positive (vs. negative)? (1 = Negative, 9 = Positive); Overall, to what extent
did you see the hand cream as desirable (vs. undesirable)? (1 = Undesirable, 9 = Desirable); To
what extent did you like (vs. dislike) the hand cream? (1 = Dislike, 9 = Like). These items were
highly correlated (α = .96) and were averaged to create a composite measure.

We also asked participants to respond to a set of exploratory measures that were designed
to assess behavioral intentions. Participants indicated their agreement with the following: I
would consider purchasing this hand cream (1 = Not at all, 9 = Very much so); I would be
interested in using this hand cream again (1 = Not at all, 9 = Very much so); I would recommend
this hand cream to others (1 = Not at all, 9 = Very much so). These items were highly correlated ($\alpha = .93$) and were averaged to create a composite measure of behavioral intentions.

At the end of the study, participants were asked whether they actually tried the sample product (yes or no). Forty-two participants who either did not correctly answer both of the attention check questions (25 participants) or did not sample the product (17 participants) as instructed were removed from the analyses, leaving a total of 374 participants (65% female, $M_{age} = 29.5$).8

Results

**Product Ratings.** We conducted a 2 (brand type: heritage vs. control) X 2 (product type: original vs. enhanced) ANOVA. This analysis indicated that there was no main effect of brand type ($F(1, 370) = 0.62, p = .43$) and no main effect of product type ($F(1, 370) = 0.23, p = .64$). However, there was a significant interaction between brand type and product type, $F(1, 370) = 7.12, p = .008, \eta^2_p = .019$ (see figure 2.4).

![FIGURE 2.4](image_url)

**PRODUCT RATINGS AS A FUNCTION OF BRAND AND PRODUCT TYPE IN STUDY 2**

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8 The number of exclusions did not systematically vary across the four conditions, $X^2 (3, N = 416) = 2.22, p = .53.$
To examine whether the manipulated variables interacted in the manner that we predicted, we then conducted a series of planned contrasts. For the heritage brand, participants rated the enhanced hand cream less favorably than the original hand cream \( (M_{\text{enhanced}} = 6.09, SD = 1.97 \text{ vs. } M_{\text{original}} = 6.68, SD = 1.66); t(187) = 2.16, p = .032, \eta^2_p = 0.024. \) However, for the control brand, the opposite was true. Participants rated the enhanced hand cream more favorably than the original hand cream, although this difference did not reach statistical significance \( (M_{\text{enhanced}} = 6.73, SD = 1.75 \text{ vs. } M_{\text{original}} = 6.32, SD = 1.70); t(183) = 1.60, p = .11. \) Furthermore, participants rated the enhanced formula from the heritage brand significantly lower than the enhanced formula from the control brand, \( t(370) = 2.43, p = .016, d = .25. \)

**Behavioral Intentions.** The measures of behavioral intentions showed the same pattern as the product evaluations. On average, however, ratings on the behavioral intentions were significantly lower than the product evaluations \( (M_{\text{behavioral intentions}} = 5.46, SD = 2.23 \text{ vs. } M_{\text{product ratings}} = 6.41, SD = 1.79; t(370)=14.75, p <.001), \) and several participants spontaneously mentioned that they did not purchase or use hand cream. Nonetheless, a two-way ANOVA indicated no main effect of brand type \( (F(1, 370) = 0.02, p = .90) \) and no main effect of product type \( (F(1, 370) = 0.01, p = .94), \) but a marginally significant interaction between brand type and
product type \((F(1, 370) = 3.83, p = .051, \eta_p^2 = .010)\). Although this pattern was consistent with our predictions, none of the remaining simple effects reached statistical significance. When the hand cream was made by a heritage brand, participants tended to express higher purchase intentions for the original hand cream \((M_{\text{original}} = 5.70, SD = 2.23 \text{ vs. } M_{\text{enhanced}} = 5.26, SD = 2.24)\); \(t(187) = 1.34, p = .18\). However, for the control brand, participants tended to express higher purchase intentions for the enhanced hand cream \((M_{\text{enhanced}} = 5.75, SD = 2.26 \text{ vs. } M_{\text{original}} = 5.27, SD = 2.18)\); \(t(183) = 1.43, p = .15\).

**Omnibus analysis.** To ensure that the overall pattern of response was indeed the same across the product ratings and behavioral intentions measures, we conducted a mixed-model ANOVA with brand type (heritage vs. control) and product type (original vs. enhanced) as between-subjects factors and measure type (evaluations vs. behavioral intentions) as a within-subjects factor. This omnibus analysis replicated the two-way interaction between brand type and product type \((F(1, 370) = 5.66, p = .018, \eta_p^2 = .02)\) and the main effect of measurement type \((F(1, 370) = 212.29, p < .001, \eta_p^2 = .37)\). Importantly though, there was no three-way interaction between these factors, \(F(1, 370) = 0.10, p = .75\).

**Discussion**

Study 2 tested our core predictions by having participants actually sample a product in a lab setting. Despite the fact that the product was the same in all conditions, when participants were exposed to heritage branding, they rated the enhanced product less favorably than the original product. Conversely, in the control conditions, participants tended to rate the enhanced product more favorably than the original product.
Moreover, evaluations of the enhanced product from the heritage brand were significantly lower than evaluations of the enhanced product from the control brand. As noted previously, if quality inferences were instead driving the effects, we would expect those ratings to be the same or perhaps, the ratings of the enhanced product from the heritage brand to be higher than ratings of the enhanced product from the control brand due to a positive spillover effect of heritage branding. However, the lower ratings of the enhanced formula from the heritage brand (compared to the control brand) are consistent with the hypothesis that perceptions of authenticity, and not quality inferences, drive lower evaluations of enhanced products. In the following study, we build on these results by examining whether the negative effect of heritage branding on enhanced products is moderated by the type of heritage cues that are employed.

**STUDY 3: MODERATION BY HERITAGE CUE TYPE**

The previous study demonstrated that heritage branding can have a negative effect on evaluations of enhanced products. The purpose of study 3 was to test whether this negative effect is moderated by the types of heritage cues that are used. Drawing on the distinction between continuity and integrity authenticity identified in study 1, we reasoned that heritage branding that employs values cues (as opposed to longevity cues) would not result in lower evaluations of the enhanced (vs. original) product. This is because this type of heritage branding will be less likely to lead consumers to assess authenticity with respect to a product’s consistency with the brand’s origins (continuity), and thus, changes to the product via enhancements will be less likely to lower authenticity perceptions and subsequently decrease product evaluations.
To test this, we asked participants to read about an actual brand (Lodge), which manufactures cast-iron cookware. To enhance the ecological validity of the manipulation, we used language taken directly from the company’s website (under the “our story” section of the website) and highlighted either longevity cues or values cues in the description of the brand. Then, participants were asked to evaluate one of the brand’s two product lines: The “Blacklock Collection,” which used the original manufacturing techniques and designs, or the “Chef Collection,” which used a new and improved design that is lighter-weight and more durable. Again, both product lines are actually offered by Lodge, and the language used to describe them was taken directly from the website. We predicted that participants would rate the enhanced product less favorably than the original product when brand heritage was highlighted using longevity cues, but not when brand heritage was highlighted using values cues.

Another goal of study 3 was to provide a direct test for our proposed process. While we have demonstrated that longevity cues selectively affect continuity authenticity (study 1) and that establishing brand heritage using those longevity cues can lead consumers to respond negatively to product enhancements (study 2), we have not yet provided direct mediation evidence. To test whether continuity authenticity indeed explains the negative evaluations of enhanced products, we asked participants to rate perceived authenticity of the brand with respect to both continuity authenticity and integrity authenticity. We predicted that the negative evaluations of the enhanced product in the longevity cues conditions would be explained by reduced perceptions of continuity authenticity but not by perceptions of integrity authenticity.

Method
We recruited 601 participants (\(M_{\text{age}} = 39.3\); 52.6% female) from Amazon’s Mechanical Turk. Participants were randomly assigned in a 2 (heritage cues: longevity vs. values) X 2 (product type: original vs. enhanced) between-subjects design. Participants were asked to read about a cookware brand, *Lodge*. Importantly, we manipulated heritage type by using language directly taken from the brand’s website under the “our story” section. Figure 2.5 displays the brand bios in each set of conditions (panel (a) longevity cues, panel (b) values cues). Specifically, in the longevity cue condition, we established heritage branding by using both cues identified in study 1a: a duration cue (establishment date, 1896) and a signature product cue (120 years of experience creating heirloom quality cast iron cookware). In the values cue condition, we included the two values cues identified in study 1a (a family ownership cue and a core values cue) in the brand bio.

*Heritage Brand Pretest.* We conducted a pretest to ensure that the two bios successfully manipulated brand heritage and that the two bios portrayed *Lodge* as equally high in terms of brand heritage. We recruited 150 participants from Prolific (\(M_{\text{age}} = 37.5\); 73% female) and randomly assigned them to one of the three conditions: a control condition, longevity cues condition, or values cues condition. Participants in the two heritage conditions saw the same brand descriptions depicted above, while those in the control condition only saw the brand logo with a tagline “Lodge makes cookware the right way.” Participants then rated the extent to which they agreed with the following statement: “I consider Lodge to be a heritage brand” (1 = Definitely Disagree, 9 = Definitely Agree). A one-way ANOVA revealed that Lodge was perceived as a heritage brand significantly more so in the longevity cues condition (\(M_{\text{continuity}} = 7.40, SD = 1.44; t(147) = 5.25, p < .001, \eta^2_p = .23\)) and values cues condition (\(M_{\text{integrity}} = 7.08, SD = 1.84; t(147) = 4.40, p < .001, \eta^2_p = .14\)) than in the control condition (\(M_{\text{control}} = 5.54, SD = ...
Moreover, ratings of the longevity and values conditions were not different from one another, \( t(147) = 0.88, p = .38 \).

**Continuity Authenticity Pretest.** We conducted a second pretest with 200 participants from Prolific (\( M_{\text{age}} = 38.0, 67\% \text{ female} \)) to ensure that the brand bio used in the longevity cues condition was perceived as higher on continuity authenticity (than on integrity authenticity) and that the brand bio used in the values cue condition was perceived as higher on integrity authenticity (than on continuity authenticity). Participants saw either the longevity brand bio or the values brand bio and then completed the continuity and integrity portions of the PBA (in randomized order). A series of within-subjects contrasts indicated that indeed, the bio that emphasized longevity cues was rated as significantly higher on continuity authenticity than on integrity authenticity (\( M_{\text{continuity}} = 8.05, SD = 0.89 \) vs. \( M_{\text{integrity}} = 7.71, SD = 1.21 \)); \( t(198) = 2.25, p = .026, \eta^2_p = .03 \). Conversely, the bio that emphasized values cues was rated as significantly higher on integrity authenticity than on continuity authenticity (\( M_{\text{integrity}} = 7.05, SD = 1.31 \) vs. \( M_{\text{continuity}} = 6.52, SD = 1.26 \)); \( t(198) = 2.93, p = .004, \eta^2_p = .04 \).

**FIGURE 2.5**
**STIMULI FOR THE LONGEVITY AND VALUES CUE CONDITIONS IN STUDY 3**

a) Longevity cues condition

Lodge makes cookware the right way.
Creating heirloom-quality cast iron cookware in Tennessee since 1896.

**About Lodge**
Lodge Cast Iron has been making heirloom-quality cookware and accessories since 1896. Backed by over 120 years of experience, each piece of Lodge cookware is crafted for durability and versatility.

We don’t just make cookware — we make memories that last for generations.
b) Values cues condition

In the main experiment, following the brand bios (which either included longevity cues or values cues), participants read one of two product descriptions. Participants in the original product condition read the following:

**Blacklock Collection**: Named after the original Lodge Cast Iron foundry, the Blacklock Collection is made using our original casting and finishing methods, which have remained unchanged.

Participants in the enhanced product condition read the following:

**Chef Collection**: Our new and improved Chef Collection uses the latest technology and combines modern, lightweight design with our new triple-seasoned finish.

In both conditions, the text was accompanied by the same picture of cast-iron cookware.

After reading the assigned information, participants completed three attention check questions in
a binary choice format. The first attention check question asked participants whether Lodge is a family-owned company (True, False, or Don’t know). The second question asked whether Lodge has been making cookware since 1896 (True, False, or Don’t know). The third question asked: “the product described above is…” and participants chose between the two options: (a) made using the latest technology and (b) made using the original casting and finishing methods that have remained unchanged. Fifty-five participants did not correctly answer at least one of the three attention check questions and were removed from the analyses, leaving a total of 546 participants (M\text{age} = 39.6; 52.6\% female)\(^9\).

All participants were then asked to rate Lodge’s products on four product evaluation measures, taken from Argo and Dahl (2018): To what extent was your overall impression of this product favorable (vs. unfavorable)? (1 = Unfavorable, 9 = Favorable); To what extent was your overall impression of this product positive (vs. negative)? (1 = Negative, 9 = Positive); Overall, to what extent did you see this product as desirable (vs. undesirable)? (1 = Undesirable, 9 = Desirable); To what extent did you like (vs. dislike) this product?” (1 = Dislike, 9 = Like). These items were highly correlated (\(\alpha = .96\)) and were averaged to create a composite measure of product evaluations. Finally, participants completed the continuity authenticity (\(\alpha = .90\)) and integrity authenticity (\(\alpha = .89\)) subscales of the PBA (Morhart et al. 2015).

Results and Discussion

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\(^9\) The rate of exclusion in the longevity cues-enhanced product condition (15.7\%) was significantly higher relative to other three conditions (ranged from 6\% to 10\%), \(X^2(3, \text{ N} = 601) = 10.27, p = .016\). However, the pattern of results did not significantly differ when we included all participants (see appendix 2I for results without exclusions).
**Product Ratings.** We conducted a 2 (heritage type: longevity vs. values) X 2 (product type: original vs. enhanced) ANOVA on the product ratings. This analysis indicated no main effect of heritage type ($F(1,542) = 0.15, p = .70$). There was a significant main effect of product type, whereby the original product was rated higher than the enhanced product ($M_{\text{enhanced}} = 7.46$, $SD = 1.37$ vs. $M_{\text{original}} = 7.72$, $SD = 1.25$); $F(1,542) = 5.27, p = .022, \eta^2_p = .010$. More importantly, there was a significant interaction between heritage type and product type, $F(1,542) = 5.10, p = .024, \eta^2_p = .01$. Planned contrasts revealed that when brand heritage was signaled using longevity cues, participants rated the enhanced product less favorably than the original product ($M_{\text{enhanced}} = 7.33$, $SD = 1.52$ vs. $M_{\text{original}} = 7.85$, $SD = 1.19$); $t(263) = 3.10, p = .002, \eta^2_p = .035$. However, when brand heritage was signaled using values cues, ratings of the original and enhanced product did not significantly differ ($M_{\text{enhanced}} = 7.55$, $SD = 1.32$ vs. $M_{\text{original}} = 7.54$, $SD = 1.26$); $t(279) = 0.027, p = .98$.

**FIGURE 2.6**
PRODUCT RATINGS IN STUDY 3

*Ratings of Continuity Authenticity.** Interestingly, offering an enhanced product appeared to reduce ratings of continuity authenticity, regardless of which heritage cues were initially
highlighted (longevity or values cues). A two-way ANOVA revealed a significant main effect of product type ($M_{\text{original}} = 8.13, SD = 0.98$ vs. $M_{\text{enhanced}} = 7.84, SD = 1.13$; $F(1, 542) = 9.35, p = .002, \eta^2_p = .017$), but no main effect of heritage type ($F(1, 542) = 0.16, p = .69$) and no interaction ($F(1, 542) = 0.061, p = .81$). That is, in both the longevity cues ($M_{\text{original}} = 8.16, SD = 0.94$ vs. $M_{\text{enhanced}} = 7.85, SD = 1.18$; $t(263) = 2.32, p = .021, \eta^2_p = .020$) and the values cues conditions ($M_{\text{original}} = 8.10, SD = 1.03$ vs. $M_{\text{enhanced}} = 7.84, SD = 1.10$; $t(279) = 2.01, p = .046, \eta^2_p = .014$), Lodge was rated significantly higher on continuity authenticity when participants evaluated the original product than when they evaluated the enhanced product.

**Ratings of Integrity Authenticity.** In contrast, ratings of integrity authenticity were not significantly affected by heritage type ($M_{\text{values}} = 6.73, SD = 1.28$ vs. $M_{\text{longevity}} = 6.54, SD = 1.37$; $F(1, 542) = 3.50, p = .062, \eta^2_p = .006$) and product type ($M_{\text{original}} = 6.69, SD = 1.36$ vs. $M_{\text{enhanced}} = 6.59, SD = 1.30$; $F(1, 542) = 1.46, p = .23$). Furthermore, there was no significant interaction between heritage type and product type, $F(1, 542) = 0.054, p = .82$. In both the longevity cues ($M_{\text{original}} = 6.61, SD = 1.39$ vs. $M_{\text{enhanced}} = 6.44, SD = 1.35$; $t(263) = 0.97, p = .34$) and the values cues conditions ($M_{\text{original}} = 6.80, SD = 1.31$ vs. $M_{\text{enhanced}} = 6.68, SD = 1.26$; $t(279) = 0.73, p = .47$), Lodge was not rated differently on integrity authenticity when participants evaluated the original versus the enhanced product.

**Mediation.** We then tested whether ratings of continuity authenticity mediated the effect of product type (original vs. enhanced) on product evaluations. Given that there was no direct effect of product type on evaluations in the values cue conditions (estimated effect = .004, $p = .98$), we conducted mediation analyses for the conditions in which longevity cues were highlighted. We included product type (original vs. enhanced) as the independent variable, continuity authenticity and integrity authenticity as mediators, and product evaluations as the
dependent variable (PROCESS Model 4, Hayes 2013; 10,000 bootstrapped samples). In a competitive mediation model, continuity authenticity significantly explained the decrease in product ratings of the enhanced (vs. original) product (estimated indirect effect = .23, 95% CI = .04 to .46) while integrity authenticity did not (estimated indirect effect = .02, 95% CI = -.02 to .08).

Discussion

Study 3 demonstrated a key boundary condition for the negative effect of heritage branding on evaluations of enhanced products. Using an ecologically valid set of stimuli, we found that the type of heritage cue significantly moderated ratings of the original versus enhanced product. Consistent with study 2, heritage branding that employed longevity cues again led the enhanced product to be viewed more negatively than the original product. In contrast, heritage branding that highlighted cues associated with values resulted in little difference between the enhanced (vs. original) product.

Furthermore, we found direct support for our proposed process. In the longevity cues condition, we found that continuity authenticity (but not integrity authenticity) mediated the negative effect of enhancements on product evaluations. This is consistent with our core theorizing that such longevity cues lead consumers to assess brand authenticity in terms of a connection to the brand’s origins. However, this same relationship did not obtain when values heritage cues were employed. This is consistent with the reasoning that when a brand highlights heritage cues associated with its values, consumers assess brand authenticity with respect to the brand’s integrity, which is less dependent on maintaining perceived continuity with the brand’s origins.
Interestingly, we did observe that the product enhancement lowered continuity perceptions in both the longevity cues condition and the values cues conditions. We interpret this effect to mean that for heritage brands, modifying a product may reduce perceptions of continuity authenticity, regardless of how the brand chooses to signal their heritage (via either longevity cues or values cues). However, when the company has established its heritage via values cues, this reduction in continuity authenticity does not affect consumer evaluations of the enhanced product. These results are consistent with the reasoning that heritage branding focused on values cues leads consumers to be less likely to consider perceived continuity in forming their assessments of brand authenticity.

**STUDY 4: MODERATION BY CONNECTION TO BRAND ORIGIN**

In the final study, we sought to identify a way in which a brand may obviate negative evaluations of product enhancements, even when the brand’s heritage has been established via longevity cues. Returning to the example of Converse’s failed “Chuck II,” when the Chuck II was initially released, the messaging focused on how the new shoe was a bold departure from the previous model. For example, in press releases from Converse, then CEO Jim Calhoun, was quoted as saying, “The launch of Chuck II is a ground-breaking moment for Converse as we continue to move the brand forward through creativity and innovation, ushering in not just a new sneaker, but a completely new way of thinking.” (Converse Inc. 2015).

However, the results of studies 1-3 suggested that enhanced products are evaluated negatively precisely because they are not seen as continuous with the brand’s origins. Therefore, we predicted that revising the positioning of the enhanced product as, in some way, connected to
the brand’s origins, should attenuate the negative effect. To test this, study 4 asked participants to read about a fictional condiment brand. The brand bio contained the two longevity cues identified in study 1: the duration cue (establishment date, 1911) and the signature product cue (the brand was described as being well-known for its signature Italian-style tomato sauce). Participants then read that the brand had developed an enhanced tomato sauce after conducting several rounds of blind taste tests.

Then, between-subjects, we varied whether the same enhancement was framed as continuous or discontinuous with the brand’s origin. Specifically, those in the continuous condition read that the enhancement was consistent with the original creator’s vision. Those in the discontinuous condition read that the enhanced product was a departure from the original product. Subsequently, participants were randomly assigned to either rate the original tomato sauce or the enhanced tomato sauce. In line with our theorizing, we predicted that participants would evaluate the enhanced product more negatively (than the original product) when it was perceived as discontinuous with the brand’s origin. However, we predicted that this effect would be attenuated if the enhancement was framed as continuous with the brand’s origin.

Method

We recruited 400 participants (67% female, $M_{age} = 37.5$) from Prolific (Prolific.ac). Participants were randomly assigned to one of four conditions in a 2 (framing: continuous vs. discontinuous) X 2 (product: original vs. enhanced) between-subjects design. All participants read the same information about the condiment brand, Fratellino’s:
Fratellino’s is an Italian-style sauce and condiment brand that was originally founded in 1911. It is best known for its signature “Original Recipe” tomato sauce.

The coveted family recipe originated with Martina Fratellino, the family matriarch. It was passed on to her children and grandchildren as the Fratellino’s brand has grown throughout the generations.

**Heritage Brand Pretest.** We conducted a pretest to examine whether this brand bio led participants to view the company as a heritage brand. Fifty participants were recruited from Prolific (\(M_{\text{age}} = 34.8\); 58% female) and were asked to read the brand bio above and respond to the following: “I consider Fratellino’s to be a heritage brand” (1 = Not at all, 9 = Very much so). In comparison to the midpoint of the scale, participants indicated that they considered Fratellino’s to be a heritage brand: \(M = 7.72, SD = 1.28; t(49) = 15.05, p < .001\).

**Continuity Authenticity Pretest.** In addition, to ensure that we had primed continuity authenticity (rather than integrity authenticity) with the brand bio, we had another 49 participants from Prolific (\(M_{\text{age}} = 36.9\); 69% female) read the brand description shown above and complete the continuity and integrity authenticity portions of the PBA scale (in a randomized order). A paired-samples t-test confirmed that the brand was indeed seen as higher on continuity authenticity than on integrity authenticity (\(M_{\text{continuity}} = 7.68, SD = 1.62\) vs. \(M_{\text{integrity}} = 6.41, SD = 1.15\)); \(t(48) = 9.64, p < .001, \eta_p^2 = .66\).

On the next page, all participants read that the brand decided to enhance the product to meet the changing tastes of consumers:
However, consumer tastes have changed over the years, and recently Fratellino’s conducted several blind taste tests to develop a new recipe that scored even better with today’s consumers.

In the discontinuous condition, the brand framed the new recipe as a departure from the brand’s origin:

The new “Family Table Recipe” achieves this goal. “The result is a bold departure from our original recipe. It is a recipe that appeals to everyone’s tastes. In fact, it is not just a new recipe but a completely new way of thinking,” says Mark Fratellino, the current CEO and great-grandchild of Martina Fratellino. “We are proud to showcase our bold leap forward.”

In the continuous condition, the brand framed the same enhancement as continuous with the brand’s origin:

The new “Family Table Recipe” achieves this goal. “The result is a continuation of my great-grandmother’s love of food and her desire to bring as many smiles as possible through her cooking. It is a recipe that appeals to everyone’s tastes. In fact, it is just what my great-grandmother would have wanted,” says the current CEO, Mark Fratellino, and great-grandchild of Martina Fratellino. “We are proud to showcase our return to Martina’s vision.”
Participants were then asked to evaluate either the original or enhanced product using the items from Argo and Dahl (2018): To what extent was your overall impression of this product favorable (vs. unfavorable)? (1 = Unfavorable, 9 = Favorable); To what extent was your overall impression of this product positive (vs. negative)? (1 = Negative, 9 = Positive); Overall, to what extent did you see this product as desirable (vs. undesirable)? (1 = Undesirable, 9 = Desirable); To what extent did you like (vs. dislike) this product? (1 = Dislike, 9 = Like). These items formed a reliable scale ($\alpha = .95$) and were averaged to create a composite measure.

Results and Discussion

We conducted a 2 (framing: discontinuous vs. continuous) X 2 (product: original vs. enhanced) ANOVA. This analysis indicated that there was a significant main effect of enhancement framing, such that participants had significantly higher evaluations of the product when the same enhancement was framed as continuous rather than discontinuous with the brand’s origin ($M_{\text{continuous}} = 6.83$, $SD = 1.42$ vs. $M_{\text{discontinuous}} = 6.45$, $SD = 1.57$); $F(1, 396) = 6.78$, $p = .010$, $\eta^2_p = .017$. There also was a significant main effect of product type, such that the enhanced product was rated significantly lower than the original product ($M_{\text{original}} = 6.83$, $SD = 1.41$ vs. $M_{\text{enhanced}} = 6.45$, $SD = 1.58$); $F(1, 396) = 6.40$, $p = .012$, $\eta^2_p = .016$. Importantly, we also found a significant interaction between enhancement framing and product type, $F(1, 396) = 14.45$, $p < .001$, $\eta^2_p = .035$ (see figure 2.7).

To test whether the manipulated variables interacted in the way we predicted, we then conducted a series of planned contrasts. In the discontinuous condition, participants rated the enhanced product less favorably than the original product ($M_{\text{enhanced}} = 5.99$, $SD = 1.76$ vs. $M_{\text{original}}$
However, in the continuous framing condition, we observed an opposite trend: participants rated the enhanced product more favorably than the original product, although this difference was not significant ($M_{\text{enhanced}} = 6.93, SD = 1.19$ vs. $M_{\text{original}} = 6.74, SD = 1.61$); $t(197) = 0.92, p = .36$. Moreover, evaluations of the enhanced product paired with the discontinuous framing were significantly lower than evaluations of the enhanced product paired with continuous framing, $t(396) = 4.52, p < .001, d = .55$.

**FIGURE 2.7**
PRODUCT EVALUATIONS IN STUDY 4

Study 4 demonstrated that framing enhancements as continuous with the brand’s origin can attenuate the negative evaluation of product enhancements, even for brands that employ longevity heritage cues. That is, when the same enhancement was framed to be consistent with the founder’s original intent (versus a departure from the brand’s origins), we no longer observed a negative effect of enhancement on product evaluations. This effect further supports our theorizing that disrupting the perceived continuity with the brand’s origin indeed explains the lower evaluations of enhanced products from heritage brands. Furthermore, study 4 introduces
another practical way in which brands can enhance their products while potentially circumventing negative inferences from consumers.

**GENERAL DISCUSSION**

Heritage branding is a common marketing practice that has been shown to generally increase product appeal (Morhart et al. 2015; Urde et al. 2007; Wiedmann et al. 2011; Wuestefeld et al. 2012). However, the present studies provide one of the first investigations into a potential cost of heritage branding, namely, consumer resistance to product enhancements. Across four studies and a variety of product domains (e.g., cosmetics, cookware, and food products), we find that heritage branding can reduce the appeal of enhanced products.

Studies 1a and 1b systematically investigated which heritage cues lead consumers to assess brand authenticity with respect to continuity authenticity. Prior research has documented the relevance of authenticity perceptions to heritage branding (Beverland 2005; Burghausen and Balmer 2014; Leigh et al. 2006; Napoli et al. 2014). However, to date, existing work has not systematically investigated how different brand heritage cues are related to different authenticity dimensions. Study 1 demonstrated that certain “longevity” heritage cues selectively affect ratings of continuity authenticity, whereas other “values” heritage cues affect ratings of integrity authenticity.

Study 2 then investigated whether heritage branding lowers evaluations of product enhancements. We found that when brands employed longevity cues to establish brand heritage, participants rated an enhanced product less favorably than the original version of that product. In contrast, participants in the control condition rated the enhanced product more favorably than the
original version of that same product. Moreover, we found that heritage branding lowered ratings of the enhanced product, relative to when the same enhanced product was produced by a non-heritage brand.

Study 3 identified a key moderator of these effects in which highlighting different types of heritage cues (longevity cues vs. values cues) can significantly alter how enhanced products are subsequently evaluated. Establishing brand heritage using either longevity cues or values cues led participants to perceive the brand as a “heritage brand” to an equal extent. Nonetheless, we observed significantly lower ratings of the enhanced product only when longevity cues were highlighted. These results are in line with our theorizing that enhanced products from heritage brands are evaluated negatively because authenticity is assessed with respect to perceived continuity. In addition, study 3 provided direct mediation evidence that reduced continuity perceptions indeed explained the lower evaluations of enhanced products.

Finally, study 4 identified a second boundary condition. This study demonstrated that even for heritage brands that establish themselves via longevity cues, negative evaluations of enhanced products can be ameliorated by highlighting connections between the enhancement and the brand’s origin. Specifically, study 4 found that the negative effect of heritage branding was attenuated if the same enhancement was framed as consistent with the founder’s intentions.

Theoretical and Practical Implications

These findings have a number of theoretical and practical implications. Beyond documenting a potential cost of heritage branding, the present findings advance our understanding of the relationship between heritage branding and authenticity (Leigh et al. 2006;
Liebrenz-Himes et al. 2007; Morhart et al. 2015; Urde et al. 2007; Wiedmann et al. 2011; Wuestfeld et al. 2012). Prior work has discussed the role of authenticity as a critical element of both heritage branding and evaluations of brand extensions (e.g., Spiggle et al. 2012). However, our work goes beyond this research by demonstrating how heritage branding moderates the relative importance of authenticity and how it interacts with consumers’ evaluations of enhanced versus original products. Moreover, in providing a framework that distinguishes between two distinct routes through which heritage branding can impact perceptions of authenticity—continuity versus integrity—we are able to more clearly articulate how different elements of heritage branding are related to different dimensions of brand authenticity.

The current studies also contribute to existing research on product enhancements (Mukherjee and Hoyer 2001; Nowlis and Simonson 1996; Simonson, Carmon, and O’Curry 1994; Thompson et al. 2005). Past work has demonstrated that product enhancements affect consumer valuations through various inferences related to perceptions of functionality or usability (Carpenter et al. 1994; Mukherjee and Hoyer 2001; Simonson et al. 1994). However, the current studies examined product enhancements in the context of heritage branding, finding that concerns about conceptual features, such as authenticity, can play a more significant role than functional considerations.

With respect to practical implications, heritage branding is a common way that firms, even those with products that are relatively new to the market, can increase perceptions of brand value (Leigh et al. 2006; Urstadt 2015; Wiedmann et al. 2011). Our work suggests that marketers should approach heritage branding with caution, as highlighting certain cues may ultimately lead consumers to resist product enhancements. Analogous to the case of Converse, brands can find themselves stuck at an impasse, wherein the very aspect that they are valued for—continuity
with the brand’s origin—limits their ability to change or enhance their products if those enhancements are not framed in the right way.

Our framework also provides specific and practical recommendations for different ways that brands can avoid potential backlash from consumers. First, firms can establish brand heritage in a way that makes continuity authenticity a less salient dimension for consumers. For example, brands can highlight heritage cues associated with integrity authenticity, such as core values or family ownership. Additionally, brands can reframe product enhancements as aligned with the brand’s origin, such as consistency with the original founder’s intentions. In this way, a brand can highlight its longevity while also remaining true to customers’ expectations that the brand should remain continuous with its origin.

Limitations and Future Directions

Although we found that negative reactions to enhanced products can be mitigated (studies 3 and 4), future research could identify additional boundary conditions. For example, the negative effects of enhancements may depend on the type of product that the brand is changing. A brand like Burberry has strong heritage associations with its trench coats, and hence changing the design of those trench coats (vs. other products) may be seen as a more significant violation of continuity authenticity. Thus, consumers may be reluctant to purchase an enhanced version of Burberry’s iconic trench coat but may be more accepting of enhanced products that are less associated with the brand’s origin, such as a sweater or winter jacket. Thus, it may be worthwhile to examine how heritage branding influences evaluations of product enhancements for a broader range of products.
Relatedly, the interactions between quality perceptions and authenticity may be more nuanced and complex than how they were examined here. In the current studies, our aim was to show how authenticity may affect evaluations independent of any differences in actual functional performance. Consider, for example, the results of study 2 involving an enhanced product from either a heritage or a control brand. Given that both enhanced products are new, a quality inference account would predict that they should be seen as equally desirable. However, our authenticity account predicts that the enhanced product from the heritage brand would be evaluated less favorably than the enhanced product from the control brand, which is what we observed. Moreover, in study 4, all information about the longevity of the brand and the original product was held constant. Even in this case, we show that merely reframing the enhanced product as consistent with the original founder’s intent (a manipulation of authenticity, not quality) can attenuate any negative evaluations of the enhanced product.

Nonetheless, it may be that in many cases of heritage branding, consumers infer that if the original product has been unchanged for many years, then it must be high quality. We conjecture that there may be a more complex relationship between quality inferences and authenticity, such that consumers may reasonably infer that original products are high quality while also prioritizing authenticity over quality in their product evaluations. The case of Converse Chuck IIs is a nice example of this, where consumers may infer that there is something special about the original Chuck Taylors (because the shoes remained unchanged for so long), while also recognizing that Chuck IIs are better-performing shoes. Future work may endeavor to disentangle this complexity with greater precision.

Finally, future work could examine other forms of marketing that lead consumers to prioritize continuity in their assessment of product enhancements. For instance, nostalgia
marketing is another commonly used strategy to increase product value (Elliott 2009; Huang, Huang, and Wyer 2016; Loveland, Smeesters, and Mandel 2010). Like heritage branding, nostalgia marketing may also make continuity authenticity particularly important, and, in turn, brands may face similar challenges when they decide to change their products.

In sum, the current studies suggest that while heritage branding may offer many benefits to firms, it also may entail potential costs. Specifically, the marketing strategies that enhance authenticity through continuity may simultaneously limit firms’ abilities to improve their products and effectively respond to changing consumer demands. Our work identifies this challenge and provides several insights into how firms can leverage the benefits that come with heritage branding while also laying the groundwork for future improvements and enhancements.
REFERENCES


Hayes, Andrew F. (2013), "Model Templates for Process for Spss and Sas."


APPENDIX 1

*Seeking Stability: Consumer Motivations for Communal Nostalgia*
APPENDIX 1A: Experimental manipulation pretest (Study 1 and 3)

The manipulation of system threat (vs. affirmation) was taken directly from previous research (Cutright et al. 2011; Kay et al. 2005; Lau et al. 2008). To ensure successful manipulation of system threat (vs. affirmation) used in Study 1 and Study 3, we conducted a pretest with 300 participants ($M_{age}=36.9$, 40.3% female), who were recruited from Amazon’s Mechanical Turk.

Participants were told that they will complete two different surveys. As part of the first survey, participants were informed that they will read an excerpt from a newspaper and will be given a memory quiz about the article. Participants in the system threat condition read the following paragraph, which was introduced as a news article written by a British journalist following his trip to the United States.

In the past, American society has been held up across the world as an example to follow. For instance, its democratic system of government and ideal of “life, liberty and the pursuit of happiness” for all were touted as gold standards for the world’s nations to strive for, and both the American government and the American people were admired by all for actively upholding values of kindness, tolerance and harmony between groups and between individuals.

However, the past few decades have seen objective deterioration of the quality of American life and standards of living, and in the face of internal and international strife, those values which were once seen as quintessentially American have gradually been replaced by more selfish and narrow-minded attitudes.

In recent years, the global community has begun to recognize that their positive view of America has more basis in the past than in current reality, and has increasingly tended towards more negative appraisals of America.

Participants in the system affirmation condition read the same instruction and read the following article:

In the past, American society has been held up across the world as an example to follow. For instance, its democratic system of government and ideal of “life, liberty and the pursuit of happiness” for all have been touted as gold standards for the world’s nations to
strive for, and both the American government and the American people have been
admired by all for actively upholding values of kindness, tolerance and harmony between
groups and between individuals.

Perhaps the most remarkable feature of American society, however, has been its
steadfastness in the face of external forces contrary to it. The quality of American life and
standards of living have improved in each of the past few decades, and even in the face of
increased internal and international strife, those quintessentially American values have
continued to be defended by American citizens and officials, at home and abroad.

In recent years, the global community has begun to recognize that their positive view of
America warrants active efforts to encourage other nations to emulate its successful sides.

Following the protocol from previous research (cf. Brescoll et al., 2013; Sotola, 2016),
participants completed two manipulation check questions that appeared as a “memory quiz.” See
MDA page 11 for the exact wordings of these questions.

On the next page, participants were directed to “Survey 2,” where they were asked to
answer a set of questions based on their personal beliefs. Participants completed the 8-item
system confidence index, which was taken from previous research (Kay & Jost, 2003). See MDA
page 12 for the exact wording of these items. The eight system confidence items formed a
reliable system confidence index ($\alpha=.92$).

Two participants (1%) who failed any of the manipulation check questions were excluded
from this analysis, leaving us with 298 participants. We observed a main effect of the threat
manipulation on system confidence such that participants in the system affirmation condition
reported greater system confidence ($M_{affirmation}=4.96, SD=1.92$) than those in the system threat
condition ($M_{threat}=4.43, SD=1.83$), $F(1,296)=5.75, p=.017, \eta^2=.02$. 
APPENDIX 1B: Experimental manipulation pretest (Study 2)

To ensure robustness of the system threat manipulation, Study 2 employed modified stimuli to manipulate system threat (vs. affirmation). To ensure successful manipulation of the new stimuli used in Study 2, we conducted a pretest with 328 participants ($M_{age}=39.1$, 46.7% female) recruited from Amazon’s Mechanical Turk.

Participants were told that they will complete two different surveys. As part of the first survey, participants were informed that they will read an excerpt from a British newspaper and will be given a memory quiz about the article. Participants were randomly assigned to either system threat or system affirmation condition. See below for stimuli used in two conditions:

(a) System threat condition

![The Guardian](image-url)
As a manipulation check, after reading the assigned paragraph, participants were asked to recall, based on the excerpt, how Americans feel about the current condition of the United States and how the nation was doing in comparison to other countries (see MDA page 14 for exact wordings). Then, participants completed the same system confidence index as the Study 1 system threat manipulation pretest. The eight system confidence items formed a reliable system confidence index (\(\alpha=.91\)).

Nine participants (2.7%) who failed any of the manipulation check questions were excluded from this analysis. As expected, we found that the system threat article significantly lowered people’s system confidence in comparison to the system affirmation article (\(M_{\text{affirmation}}=5.11\) vs. \(M_{\text{threat}}=4.64\); \(F(1,317)=6.11, p=.014, \eta^2=.02\)).
APPENDIX 1C: Stimuli Pretest for Study 3

Stimuli Pretest 1

We compiled a set of ten retro products and conducted a pretest to understand which of those products are seen as communally nostalgic. These included a rotary phone, typewriter, a record player, a polaroid camera, a VHS player, a film camera, a portable cassette tape player, a portable CD player, a flip phone, and an answering machine. We recruited an independent group of 100 U.S. participants from Amazon’s Mechanical Turk (52.0% female). The sample ranged in age from 19 to 70 ($M_{age}=39.8$, $SD=11.72$).

Participants rated the extent to which they perceived each of the ten retro products as communally nostalgic. All products were presented in randomized order, each on a separate page. Specifically, participants were asked: to what extent do you associate the following product with America’s collective identity and past? (1=Not at all, 9=Very much so). For each product, participants were also given an option to indicate “I am not familiar with this product.” The table below summarizes the mean values for all ten products.

Table 1.
Ratings of communal nostalgia perception for each product

<table>
<thead>
<tr>
<th>Product</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotary phone</td>
<td>7.56</td>
<td>1.85</td>
</tr>
<tr>
<td>Typewriter</td>
<td>7.30</td>
<td>1.88</td>
</tr>
<tr>
<td>Record player</td>
<td>7.06</td>
<td>2.01</td>
</tr>
<tr>
<td>Polaroid camera</td>
<td>7.01</td>
<td>1.85</td>
</tr>
<tr>
<td>VHS player</td>
<td>6.89</td>
<td>2.02</td>
</tr>
<tr>
<td>Film camera</td>
<td>6.78</td>
<td>2.14</td>
</tr>
<tr>
<td>Portable Cassette tape player</td>
<td>6.58</td>
<td>2.12</td>
</tr>
<tr>
<td>Portable CD player</td>
<td>6.48</td>
<td>2.13</td>
</tr>
<tr>
<td>Flip phone</td>
<td>6.24</td>
<td>2.50</td>
</tr>
<tr>
<td>Answering machine</td>
<td>6.04</td>
<td>2.27</td>
</tr>
</tbody>
</table>
Based on these results, we categorized the three highest-rated products (rotary phone, typewriter, record player) as high communal nostalgia products and the three lowest-rated products (portable CD player, flip phone, answering machine) as low communal nostalgia products.

**Stimuli Pretest 2**

We conducted an additional pretest to ensure that the “high communal nostalgia” products were indeed rated as significantly higher on communal nostalgia than the “low communal nostalgia” retro products. We recruited an independent group of 100 U.S. participants from Amazon’s Mechanical Turk (52.0% female). The sample ranged in age from 23 to 68 ($M_{\text{age}}=39.2, SD=11.20$). Participants were randomly assigned to rate either the three “high communal nostalgia” products or three “low communal nostalgia” products identified in the first pretest. All products were presented in randomized order, each on a separate page. For each product, participants rated the extent to which they associated it with America’s collective identity and past (1=Not at all, 9=Very much so). For each product, participants were also given an option to indicate “I am not familiar with this product.” We found that the mean rating of the high communal nostalgia products was higher ($\alpha=.70; M=7.50, SD=1.31$) than that of the low communal nostalgia products ($\alpha=.93; M=6.56, SD=2.06$); $t(98)=2.74, p=.007, \eta^2=.071$. 
APPENDIX 1D: Main analyses (all studies) after controlling for age, gender, religiosity, and political affiliation

Study 1

Nine participants who failed at least one of the manipulation check questions and eight participants who did not provide at least one of the demographic information were excluded from the analyses, leaving 378 participants. However, the pattern of results was the same when these participants were included.

**Hedonic experience**

The hedonic experience items formed a reliable index ($\alpha=.82$). As predicted, participants in the system threat condition enjoyed listening to the vinyl record more than participants in the system affirmation condition ($M_{\text{threat}}=7.66$ vs. $M_{\text{affirmation}}=7.37$), $F(1,372)=4.80, p=.029$, $\eta^2_p=.013$. All covariates did not have significant effects on hedonic experience: age ($p=.26$), gender ($p=.20$), political ideology ($p=.64$), or religiosity ($p=.09$).

**Purchase intention**

The purchase intention measures also formed a reliable index ($\alpha=.92$). As predicted, participants in the system threat condition said they were more interested in purchasing a record player than participants in the system affirmation condition ($M_{\text{threat}}=5.65$ vs. $M_{\text{affirmation}}=5.16$); $F(1,372)=4.96, p=.026$, $\eta^2_p=.013$. While gender did not significantly affect purchase intention ($p=.32$), age ($p=.03$, $\eta^2_p=.013$), political ideology ($p=.03$, $\eta^2_p=.013$), and religiosity ($p=.02$, $\eta^2_p=.016$) had significant effects.

**Personal Nostalgia Present versus Absent**

To analyze how these groups differed in their response to the manipulation of system threat (affirmation), we conducted a two-way ANCOVA with hedonic experience as the
dependent variable, threat (vs. affirmation) and communal nostalgia (vs. personal nostalgia) as independent factors, and age, gender, religiosity, and political affiliation as covariates. All covariates did not have significant effects on hedonic experience: age ($p=.90$), gender ($p=.20$), political ideology ($p=.72$), or religiosity ($p=.08$). Although the interaction between threat and nostalgia type did not reach statistical significance ($F(1,370)=1.74$, $p=.19$, $\eta^2_p=0.01$), we did find differential effects of system threat on participants who lacked personal nostalgia toward vinyl versus those who reported some degree of personal nostalgia. Indeed, the effect of system threat (affirmation) on hedonic experience was driven by participants who were not personally nostalgic toward vinyl records. These participants showed a pronounced effect of system threat (affirmation) on their reported experience ($M_{threat}=7.62$ vs. $M_{affirmation}=7.19$), $F(1,239)=5.59$, $p=.019$, $\eta^2_p=0.023$. However, participants who were also personally nostalgic toward vinyl records were not affected by the system threat manipulation and appeared to be at “ceiling,” reporting the maximum level of enjoyment in both conditions ($M_{threat}=7.75$ vs. $M_{affirmation}=7.68$), $F(1,127)=0.19$, $p=.67$.

Analogously, the effect of system threat on purchase interest was driven by the participants who did not associate vinyl records with their own past (although this effect did not reach statistical significance): $M_{threat}=5.18$ vs. $M_{affirmation}=4.68$; $F(1,239)=3.03$, $p=.083$ $\eta^2_p=.013$. Personally nostalgic participants were also at ceiling for their reported purchase intentions: $M_{threat}=6.56$ vs. $M_{affirmation}=6.02$; $F(1,127)=2.59$, $p=.11$.

**Study 2**

Six participants (1.5%) who failed any of the manipulation check questions were excluded from the analysis, leaving 397 participants. However, the pattern of results was the same when these participants were included.
We conducted a linear mixed-model analysis with system threat as a between-subjects factor, eight product ratings as a within-subjects factor, and participants and stimuli as random factors. We also included religiosity, age, gender and political affiliation as covariates.

We found that participants in the system threat condition preferred the retro products significantly more than the participants in the system affirmation condition ($M_{threat}=3.94$ vs. $M_{affirmation}=3.59$), $B=-0.34$, $SE=0.14$, $p=0.018$, 95% CI = -.62 to -.06. All covariates did not have significant effects on expected enjoyment: age ($p=0.94$), gender ($p=0.75$), political ideology ($p=0.62$), or religiosity ($p=0.98$).

**Study 3**

Seventy-one participants (12%) who failed any of the manipulation check questions were excluded from the analyses, leaving a total of 531 participants. However, the pattern of results was the same when these participants were included.

**Expected Enjoyment**

We conducted a 2(system threat vs. system affirmation) X 2(high vs. low communal nostalgia) ANCOVA on the measure of expected enjoyment with system threat and product type as two factors, and age, gender, religiosity, and political affiliation as covariates. All covariates did not have significant effects on expected enjoyment: age ($p=0.72$), gender ($p=0.29$), political ideology ($p=0.57$), or religiosity ($p=0.13$). We found no main effect of system threat, $F(1,523)=0.002$, $p=0.97$. There was a significant effect of product type, such that participants expected to enjoy using the high communal nostalgia products significantly more than the low communal nostalgia products ($M_{high}=4.54$ vs. $M_{low}=3.13$), $F(1,523)=73.99$, $p<0.001$, $\eta^2 = 0.12$. Importantly, however, the magnitude of this effect varied depending on whether participants were exposed to the system threat or affirmation manipulation, $F(1,523)=6.71$, $p=0.010$, $\eta^2 = 0.013$. Indeed, the preference for the
high (vs. low) communal products was larger when participants were exposed to system threat ($M_{high}=4.76$ vs. $M_{low}=2.93$, $F(1,268)=68.36$; $p<.001$, $\eta^2=.20$) versus the system affirmation manipulation ($M_{high}=3.36$ vs. $M_{low}=4.33$, $F(1,251)=16.60$; $p<.001$, $\eta^2=.062$).

**Perceived Stability and Permanence**

We conducted an analogous two-way ANCOVA on the stability scores. We found no significant effects of age ($p=.91$), gender ($p=.07$), or religiosity ($p=.10$) on perceived stability; however, there was a significant effect of political ideology ($p=.03$, $\eta^2=.009$). Overall, participants responded that the high communal nostalgia products provided a greater sense of stability than the low communal nostalgia products ($M_{high}=5.27$ vs. $M_{low}=4.22$); $F(1,523)=33.15$, $p<.001$, $\eta^2=.060$. However, the magnitude of this effect also significantly varied depending on whether participants were exposed to the system threat or affirmation manipulation, $F(1,523)=3.92$, $p=.048$, $\eta^2=.007$. Indeed, the extent to which high (vs. low) communal nostalgia products were rated as providing a significantly greater sense of stability was larger when participants were exposed to system threat ($M_{high}=5.55$ vs. $M_{low}=4.13$, $F(1,268)=35.42$, $p<.001$, $\eta^2=.12$) versus the system affirmation manipulation ($M_{high}=4.99$ vs. $M_{low}=4.32$, $F(1,251)=6.39$, $p=.012$, $\eta^2=.025$).

**Mediation Analysis**

To test for mediation, we used the Hayes macro (Model 7) with 10,000 bootstrap samples to estimate a moderated mediation model with product type as the independent variable ($0=$low communal nostalgia, $1=$high communal nostalgia), perceived stability index as the mediator, expected enjoyment index as the dependent variable, and system threat as the moderator ($0=$system affirmation, $1=$system threat). We also included age, gender, religiosity, and political affiliation as covariates. All covariates did not have significant effects: age ($p=.72$), gender ($p=.97$), political
ideology ($p=.31$), or religiosity ($p=.52$). The results indicated significant moderated mediation (index of moderated mediation $=.40$, SE$.20$, 95% CI$=.003$ to .81). Expected enjoyment was significantly mediated by perceived stability in the system threat condition ($B=0.78$, 95% CI$=.51$ to 1.08), and to a significantly lesser extent, in the system affirmation condition ($B=0.38$, 95% CI$=0.08$ to 0.69).
APPENDIX 1E: Additional study conducted

We conducted an additional study to further support our proposal that communal nostalgia and personal nostalgia are indeed distinct phenomena with distinct antecedents. In this study, we directly compare the effect of system threat versus mortality threat, which is an established antecedent of personal nostalgia (Juhl et al., 2010). We show that only system threat can increase preference for a communally nostalgic experience.

Methods

Participants and Design

Four hundred participants were recruited on Amazon’s Mechanical Turk (44 % female). The sample ranged in age from 18 to 70 ($M_{age}$=36.80, $SD$=10.98). A power analysis indicated that this study had enough statistical power to detect a medium-size effect (power of .99 for $f= .25$). We employed a mixed model design in which participants were randomly assigned to one of four conditions in a 4 (system threat, system affirmation, mortality threat, and control) between-subjects x 2 (MP3 vs. vinyl record) within-subjects design.

Threat Manipulations

Participants in the system threat and system affirmation conditions were exposed to the same manipulations and manipulation check questions as Study 1. Participants in the mortality threat condition wrote about their own death (taken from Sarial-Abi et al., 2017). Participants in the control condition wrote about dental pain (taken from Sarial-Abi et al., 2017).

Expected Hedonic Experience

All participants were asked to imagine listening to All You Need is Love by the Beatles. Participants then rated the extent to which they would enjoy listening to an MP3 recording of the
song versus a vinyl recording of the song, using nine-point scales (1 = \textit{Not at all}, 9 = \textit{Very much so}). The order in which they rated their experience with MP3 and the record player was randomized.

\textbf{Demographics}

Participants answered religiosity and political affiliation questions, as well as basic demographic questions, including age and gender.

\textbf{Results and Discussion}

Thirty-one participants (8\%) who failed any of the manipulation check questions were excluded from the analyses, leaving 369 participants. The results, however, were the same when those participants were included.

\textbf{Expected Hedonic Experience}

We conducted a repeated-measures ANOVA with the two music formats (vinyl record vs. MP3) as a within-subjects factor and condition as a between-subjects factor. We observed a significant interaction between the type of threat manipulation and the music format, $F(3,365) = 2.76, p = .042, \eta^2 = .02$. That is, while participants in all four conditions expected the experience with the record player to be more enjoyable than the experience with the MP3 recording ($F(1,365) = 70.19, p < .001, \eta^2 = .16$), the extent to which participants expected the vinyl record experience to be better differed across the various threat conditions. Thus, we computed a difference score by subtracting the expected enjoyment for the MP3 from that of the record player. A one-way ANOVA indicated that, compared to participants in the other three conditions, participants in the system threat condition ($M_{\text{threat}} = 1.51, SD = 2.27$) expected the vinyl record experience to be better than the MP3 experience by a more considerable margin, $t(365) = 2.44, p = .015$ (see the figure below).
**Demographics**

The effect of system threat on relative preference for record player did not interact with age \((p = .80)\), gender \((p = .74)\), religiosity \((p = .26)\), or political ideology \((p = .46)\).

In this study, we found that the manipulations that have previously been shown to affect personal nostalgia have a weaker effect on preference for retro products compared to system justification. By empirically differentiating communal nostalgia from personal nostalgia, this study implies that communal nostalgia and personal nostalgia may arise from distinct psychological processes.
APPENDIX 1F: Exclusion rate and post hoc power analysis in each study

<table>
<thead>
<tr>
<th>Study</th>
<th>Participant pool</th>
<th>Manipulation of system threat</th>
<th>Date of data collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study 1</td>
<td>University Laboratory</td>
<td>Established manipulation of system threat from Cutright et al., 2011</td>
<td>Feb, 2019</td>
</tr>
<tr>
<td>Study 2</td>
<td>Amazon’s Mechanical Turk</td>
<td>A modified version of the manipulation used in studies 1 and 3</td>
<td>Oct, 2017</td>
</tr>
<tr>
<td>Study 3</td>
<td>Amazon’s Mechanical Turk</td>
<td>Established manipulation of system threat from Cutright et al., 2011</td>
<td>Oct, 2020</td>
</tr>
</tbody>
</table>

Study 1

We recruited 395 participants in a university lab. The sample was mostly female (70%) and ranged in age from 18 to 65 ($M_{age}=37.2$). A post hoc power analysis using the G*Power (Faul et al., 2007) indicated that the study had enough statistical power to detect a medium-size effect (power above .99 for $f=.25$).

In Study 1, exclusion rate did not vary by condition ($\chi^2 = .18, p = .67$):

<table>
<thead>
<tr>
<th></th>
<th>System Threat</th>
<th>System Affirmation</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excluded</td>
<td>5</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>192</td>
<td>203</td>
<td>395</td>
</tr>
</tbody>
</table>

Study 2

We recruited a new sample of 403 participants from Amazon’s Mechanical Turk ($M_{age}=37.1$; 50% female). A post hoc power analysis using the G*Power (Faul et al., 2007) indicated that the replication attempt had enough statistical power to detect a medium-size effect (power of .99 for $f=.25$).

In Study 2, exclusion rate did not vary by condition ($\chi^2 = .63, p = .43$):

<table>
<thead>
<tr>
<th></th>
<th>System Threat</th>
<th>System Affirmation</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excluded</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>199</td>
<td>204</td>
<td>403</td>
</tr>
</tbody>
</table>
Study 3: Amazon’s Mechanical Turk

We recruited 602 participants on Amazon’s Mechanical Turk (50.1% female). The sample ranged in age from 19 to 77 ($M_{\text{age}}=40.1$). A power analysis indicated that this study had enough statistical power to detect a medium-size effect (power of .99 for $f=.25$).

In Study 3, the exclusion rate varied by condition:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Excluded</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>System threat – Low communal nostalgia</td>
<td>11</td>
<td>154</td>
</tr>
<tr>
<td>System threat – High communal nostalgia</td>
<td>6</td>
<td>137</td>
</tr>
<tr>
<td>System affirmation – Low communal nostalgia</td>
<td>25</td>
<td>149</td>
</tr>
<tr>
<td>System affirmation – High Communal nostalgia</td>
<td>29</td>
<td>162</td>
</tr>
<tr>
<td>Overall</td>
<td>71</td>
<td>602</td>
</tr>
</tbody>
</table>

There was a higher rate of exclusion in two system affirmation conditions than in two system threat conditions ($\chi^2 = 32.40$, $p < .001$). The exclusion criteria as well as the recruiting criteria on Amazon’s Mechanical Turk for studies 2 and 3 was the same. The higher rate of exclusions in Study 3 (vs. other studies in our empirical package) may possibly be attributed to the date of data collection. We collected the Study 3 data in October 2020 in the midst of the COVID-19 pandemic. While participants were specifically instructed to answer the manipulation check questions based on what they read from the article, participants may have had difficult time suspending their belief and indicating the correct answer: “the quality of American life and standards of living have improved.”
APPENDIX 1G: Factor analysis results of main dependent measures in Study 1

We conducted a factor analysis (Varimax rotation) of the six dependent measures to identify the latent structure among the dependent variables. This analysis indicated that the items formed two reliable factors with Eigenvalues > 1, which together accounted for 81% of the variance in scores. The first factor consisted of the three items that measured purchase intention. The second factor consisted of the other three items that measured hedonic experience. Based on this analysis, we averaged the items that loaded onto the first factor to create an index of purchase intention ($\alpha = .92$) and averaged the items that loaded onto the second factor to create an index of hedonic experience ($\alpha = .82$).

Rotated Component Matrix

<table>
<thead>
<tr>
<th>Statement</th>
<th>Factor 1</th>
<th>Factor 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would consider purchasing a record player.</td>
<td>.93</td>
<td>.21</td>
</tr>
<tr>
<td>I think a record player is worth spending money on.</td>
<td>.91</td>
<td>.19</td>
</tr>
<tr>
<td>I would like to own a record player.</td>
<td>.86</td>
<td>.27</td>
</tr>
<tr>
<td>How much did you enjoy listening to the song on a vinyl record?</td>
<td>.21</td>
<td>.91</td>
</tr>
<tr>
<td>How pleasant was it to listen to the song on a vinyl record?</td>
<td>.15</td>
<td>.88</td>
</tr>
<tr>
<td>How exciting was it to listen to the song on a vinyl record?</td>
<td>.28</td>
<td>.73</td>
</tr>
</tbody>
</table>
APPENDIX 1H: MANOVA and MANCOVA analyses for Study 1

To supplement the analyses reported in Study 1, we conducted a series of multivariate analysis of variance (MANOVA) and multivariate analysis of covariance (MANCOVA).

**MANOVA analysis**

Nine participants (2.3%) failed at least one of the manipulation check questions and were excluded from the analyses, leaving 386 participants.

**Evaluation of Vinyl Records**

We conducted a one-way MANOVA with participants’ hedonic experience ratings and purchase intention index as two dependent variables and system threat as an independent variable. Consistent with the results reported in Study 1, participants in the system threat condition had higher evaluation of the vinyl records compared to those in the system affirmation condition, $F(2,383) = 3.05, p = .049$; Wilk's $\Lambda = 0.98$, $\eta_p^2 = .02$. That is, participants in the system threat (versus system affirmation) condition enjoyed listening to the vinyl record more ($M_{threat} = 7.67$ vs. $M_{affirmation} = 7.34$) and had a higher interest in purchasing a record player ($M_{threat} = 5.67$ vs. $M_{affirmation} = 5.15$).

**Personal Nostalgia Present vs. Absent**

There were 250 participants ($M_{age} = 24.9; 62\%$ female) who did not associate vinyl records with their own past (personal nostalgia absent) and 136 participants ($M_{age} = 37.2; 70\%$ female) who did (personal nostalgia present). We conducted a two-way MANOVA with participants’ hedonic experience ratings and purchase intention index as two dependent variables, and system threat and personal nostalgia (present versus absent) as the independent variables. Although the interaction between threat and personal nostalgia (present vs. absent) did not reach statistical significance ($F(2,381) = 1.22, p = .30$; Wilk's $\Lambda = 0.99$, $\eta_p^2 = .01$), we did find differential effects of system
threat on participants who lacked personal nostalgia toward vinyl versus those who reported having personal nostalgia with vinyl records.

In fact, the effect of system threat was driven by participants who were not personally nostalgic toward vinyl records. These participants showed a pronounced effect of system threat on their reported enjoyment ($M_{\text{threat}}$=7.63, vs. $M_{\text{affirmation}}$=7.12) and purchase intention ($M_{\text{threat}}$=5.21 vs. $M_{\text{affirmation}}$=4.61) ($F(2,247) = 4.09, p = .018$; Wilk's $\Lambda = 0.97, \eta^2_p = .02$). However, participants who were personally nostalgic toward vinyl records were not affected by the system threat manipulation, reporting a similar level of enjoyment ($M_{\text{threat}}$=7.75 vs. $M_{\text{affirmation}}$=7.71) and purchase intention ($M_{\text{threat}}$=6.54 vs. $M_{\text{affirmation}}$=6.11) in both conditions ($F(2,133) = 0.60, p = .55$; Wilk's $\Lambda = 0.99$).

**MANCOVA analysis**

Nine participants (2.3%) failed at least one of the manipulation check questions and were excluded from the analyses, leaving 386 participants.

**Evaluation of Vinyl Records**

We conducted a one-way MANCOVA with participants’ hedonic experience ratings and purchase intention index as two dependent variables, system threat as an independent variable, and age, gender, religiosity, and political affiliation as covariates. Consistent with the results reported in Study 1, participants in the system threat condition had higher evaluation of the vinyl records compared to those in the system affirmation condition, $F(2,371) = 3.36, p = .036$; Wilk's $\Lambda = 0.98, \eta^2_p = .02$. That is, participants in the system threat (versus system affirmation) condition enjoyed listening to the vinyl record more ($M_{\text{threat}}$=7.66 vs. $M_{\text{affirmation}}$=7.37) and had a higher interest in purchasing a record player ($M_{\text{threat}}$=5.65 vs. $M_{\text{affirmation}}$=5.16). Age ($p=.09$), gender ($p=.09$), and political ideology ($p=.07$) did not have significant effect on participant
evaluations. Religiosity, however, had a significant effect, \( F(2, 371) = 3.18, p = .043 \); Wilk's \( \Lambda = 0.98, \eta_p^2 = .02 \).

**Personal Nostalgia Present vs. Absent**

There were 250 participants (\( M_{age} = 24.9 \); 62% female) who did not associate vinyl records with their own past (personal nostalgia absent) and 136 participants (\( M_{age} = 37.2 \); 70% female) who did (personal nostalgia present). We conducted a two-way MANCOVA with participants’ hedonic experience ratings and purchase intention index as two dependent variables, system threat and personal nostalgia (present versus absent) as two independent variables, and age, gender, religiosity, and political affiliation as covariates. Although the interaction between threat and personal nostalgia (present vs. absent) did not reach statistical significance (\( F(2, 369) = 1.18, p = .31 \); Wilk's \( \Lambda = 0.99, \eta_p^2 = .01 \)), we did find differential effects of system threat on participants who lacked personal nostalgia toward vinyl versus those who reported having personal nostalgia with vinyl records.

Indeed, the effect of system threat was driven by participants who were not personally nostalgic toward vinyl records. These participants showed a pronounced effect of system threat on their reported enjoyment (\( M_{threat} = 7.62 \), vs. \( M_{affirmation} = 7.19 \)) and purchase intention (\( M_{threat} = 5.18 \) vs. \( M_{affirmation} = 4.68 \)) (\( F(2, 238) = 3.16, p = .044 \); Wilk's \( \Lambda = 0.97, \eta_p^2 = .03 \)). However, participants who were personally nostalgic toward vinyl records were not affected by the system threat manipulation, reporting a similar level of enjoyment (\( M_{threat} = 7.75 \) vs. \( M_{affirmation} = 7.68 \)) and purchase intention (\( M_{threat} = 6.56 \) vs. \( M_{affirmation} = 6.02 \)) in both conditions (\( F(2, 126) = 1.40, p = .25 \); Wilk's \( \Lambda = 0.98 \)).
APPENDIX 2

The Curse of the Original:

How and When Heritage Branding Limits Demand for Product Enhancements
APPENDIX 2A: STUDY 1A DESIGN AND MATERIALS

We recruited participants on Prolific.ac and collected data using Qualtrics software. Participants were randomly assigned to one of 12 conditions in a 6 (heritage cue type: duration, flagship product, symbols, family-ownership, core values, original location) X 2 (salience: present vs. absent) between-subjects design.

Thank you for taking this survey!

In this survey, you will read some information about a brand (which we refer to as “brand A”) and will be asked a few questions about it.

Participants saw one of the twelve descriptions below:

<table>
<thead>
<tr>
<th>Heritage Cue Type</th>
<th>Present Condition</th>
<th>Absent Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>Brand A has existed for many decades.</td>
<td>Brand A was founded only recently.</td>
</tr>
<tr>
<td>Flagship product</td>
<td>Brand A is well-known for its signature product, which has remained unchanged.</td>
<td>Brand A is still trying to develop its signature product and is currently experimenting with many different types of offerings and methods of manufacturing.</td>
</tr>
<tr>
<td>Symbols (B&amp;W photo)</td>
<td>This is a photograph featured on the brand's website:</td>
<td>This is a photograph featured on the brand's website:</td>
</tr>
<tr>
<td>Family ownership</td>
<td>Brand A is family-owned and operated.</td>
<td>Brand A is owned by an outside investment group.</td>
</tr>
<tr>
<td>Core values</td>
<td>Brand A is guided by a set of core values.</td>
<td>Brand A changes its mission and approach to remain competitive.</td>
</tr>
<tr>
<td>Original location</td>
<td>Brand A manufactures its products in the same place that it was founded.</td>
<td>Brand A manufactures its products overseas.</td>
</tr>
</tbody>
</table>
Participants rated the following PBA items (Morhart et al. 2015) on a 9-point scale (1 = strongly disagree, 9 = strongly agree) with an additional option, ‘I do not have enough information to answer.’ All items were presented on the same page, in randomized order.

Based on this information…

Brand A seems like a brand that survives times.
Brand A seems like a brand with a history.
Brand A seems like a brand that survives trends.
Brand A seems like a timeless brand.
Brand A seems like a brand that cares about consumers.
Brand A seems like a brand that is true to a set of moral values.
Brand A seems like a brand that connects people with what is really important.
Brand A seems like a brand with moral principles.
Brand A seems like a brand that reflects important values that people care about.
Brand A seems like a brand that gives back to its consumers.
Brand A seems like a brand that adds meaning to people's lives.
Brand A seems like a brand that connects people with their real selves.
Brand A seems like an honest brand.
Brand A seems like a brand that will not betray you.
Brand A seems like a brand that delivers on its promises.

What is your gender?
- Male
- Female
- Prefer not to answer
- Other

What is your age?
APPENDIX 2B: STUDY 1B DESIGN AND MATERIALS

We recruited participants on Amazon’s Mechanical Turk and collected data using Qualtrics software. Participants were randomly assigned to one of four conditions in a 2 (longevity cues: high vs. low) X 2 (values cues: high vs. low) between-subjects design.

Thank you for taking this survey!

In this survey, you will read some information about a brand (which we refer to as “brand A”) and will be asked a few questions about it.

[Next Page]

[High Longevity / High Values]

Brand A was originally founded many years ago. It is well-known for its signature product and style, which has remained unchanged.

Brand A is also family-owned and operated. It manufactures all of its products in the hometown, where it was founded and remains committed to its original set of core values.

[High Longevity / Low Values]

Brand A was originally founded many years ago. It is well-known for its signature product and style, which has remained unchanged.

Recently, however, Brand A was purchased by an outside investment group with a new mission and market strategy. Although the brand maintains the highest quality standards, it now manufactures its signature products overseas.

[Low Longevity / High Values]

Brand A is family-owned and operated. It manufactures all of its products in the hometown, where it was founded and remains committed to its original set of core values.

However, Brand A was founded only recently. It is still trying to develop its signature product and style is currently experimenting with many different types of offerings and methods of manufacturing.

[Low Longevity / Low Values]
Brand A is owned by an outside investment group. The brand was founded recently with a new mission and market strategy. Although the brand maintains the highest quality standards, all of its products are manufactured overseas.

Brand A is still trying to develop its signature product and style and is currently experimenting with many different types of offerings and methods of manufacturing.

[Participants rated the following PBA items (Morhart et al. 2015) on a 9-point scale (1 = strongly disagree, 9 = strongly agree) with an additional option, ‘I do not have enough information to answer’. All items were presented on the same page, in randomized order.]

Based on this information…

Brand A seems like a brand that survives times.
Brand A seems like a brand with a history.
Brand A seems like a brand that survives trends.
Brand A seems like a timeless brand.
Brand A seems like a brand that cares about consumers.
Brand A seems like a brand that is true to a set of moral values.
Brand A seems like a brand that connects people with what is really important.
Brand A seems like a brand with moral principles.
Brand A seems like a brand that reflects important values that people care about.
Brand A seems like a brand that gives back to its consumers.
Brand A seems like a brand that adds meaning to people's lives.
Brand A seems like a brand that connects people with their real selves.
Brand A seems like an honest brand.
Brand A seems like a brand that will not betray you.
Brand A seems like a brand that delivers on its promises.

[Next Page]

What is your gender?
- Male
- Female
- Prefer not to answer
- Other

What is your age?
APPENDIX 2C: STUDY 2 DESIGN AND MATERIALS

We recruited participants at the university behavioral lab and collected data using Qualtrics software. Participants were randomly assigned to one of four conditions in a 2 (Brand type: Heritage vs. Control) X 2 (Product type: Original vs. Enhanced) between-subjects design.

In this study we are interested in people’s product assessments.

First, please read the short history about the brand. Then, you will be asked to sample a product and rate that product on a series of attributes.

**Important:** Please do not try the sample before you are specifically instructed to do so.

Below, you will read about *Reve, the skincare brand.*

**Heritage Brand**

*Our Heritage*

Armand Petitjean’s passion and talent for formulating the perfect skin-healing cream has deep roots in the old-world French apothecary.

Armand suffered burns on his left hand while training as an apprentice pharmacist, and that changed his life forever.

He could not find anything to heal his scorched skin and spent 5 years searching for a formula that heals and optimizes skin function.

**Founder, Armand Petitjean, 1917**

When Armand finally discovered his skin-healing formula, he founded his own beauty house, *Reve*, in 1917.

Since its founding in 1917, the brand has focused on developing its expertise in skincare products.

[below the brand description, participants completed the following attention check question]
What year was *Rêve* founded?

- 1917
- 2017
- Don’t know

---

**Please find the hand cream sample placed in front of you.** After you read the product description below, please try the sample.

- [Heritage Brand – Original Product](#)
  - [Image](#)
    - *Crème pour les mains*™. This hand cream uses the original formula that was developed when the company was founded in 1917.
    - *Crème pour les mains*™ instantly nourishes and moisturizes dry hands, protecting against daily damage.
- [Control Brand – Original Product](#)
  - [Image](#)
    - *Crème pour les mains*™. This hand cream uses the original formula that was developed when the company was founded in 2017.
    - *Crème pour les mains*™ instantly nourishes and moisturizes dry hands, protecting against daily damage.

- [Heritage Brand – Enhanced Product](#)
  - [Image](#)
    - This is the new and improved *Crème pour les mains* ADVANCED™.
    - It recently replaced *Crème pour les mains*™, the original hand cream that was developed when the company was founded in 1917.
    - The new hand cream uses a newly developed formula that draws on the latest scientific research.
    - *Crème pour les mains* ADVANCED™ instantly nourishes and moisturizes dry hands, protecting against daily damage.
- [Control Brand – Enhanced Product](#)
  - [Image](#)
    - This is the new and improved *Crème pour les mains* ADVANCED™.
    - It recently replaced *Crème pour les mains*™, the original hand cream that was developed when the company was founded in 2017.
    - The new hand cream uses a newly developed formula that draws on the latest scientific research.
    - *Crème pour les mains* ADVANCED™ instantly nourishes and moisturizes dry hands, protecting against daily damage.

The product you are going to sample today is...

- A hand cream that uses the brand’s original formula, which has not been changed since the brand’s founding.
- A hand cream that uses the brand’s newly developed formula that has replaced the brand’s original formula.
[Original Product] Please answer the following questions about 
Crème pour les mains\textsuperscript{TM}.

[Enhanced Product] Please answer the following questions about 
Crème pour les mains ADVANCED\textsuperscript{TM}.

[Product Evaluations – All questions presented in randomized order; Adapted from Argo and Dahl (2018)]

To what extent was your overall impression of the hand cream positive (vs. negative)?
1 = Negative, 9 = Positive

Overall, to what extent did you see the product as desirable (vs. undesirable)?
1 = Undesirable, 9 = Desirable

To what extent was your overall impression of the product favorable (vs. unfavorable)?
1 = Unfavorable, 9 = Favorable

To what extent did you like (vs. dislike) the product?
1 = Dislike, 9 = Like

[Behavioral Intention – All questions presented in randomized order]

I would consider purchasing this hand cream.
1 = Not at all, 9 = Very much so

I would recommend this hand cream to others.
1 = Not at all, 9 = Very much so

I would be interested in using this hand cream again.
1 = Not at all, 9 = Very much so

[Next Page]

Did you actually try the product today? (your answer to this question will not affect your payment)
- Yes
- No

What is your gender?
- Male
- Female
- Prefer not to answer
- Other

What is your age?
APPENDIX 2D: STUDY 3 DESIGN AND MATERIALS

We recruited participants on Amazon’s Mechanical Turk and collected data using Qualtrics software. Participants were randomly assigned to one of four conditions in a 2 (Heritage type: Longevity vs. Values) x 2 (Product type: Original vs. Enhanced) between-subjects design.

Thank you for taking this survey!

In this survey, you will read some information about a brand and its product and will be asked a few questions about them.

Lodge makes cookware the right way.
Creating heirloom-quality cast iron cookware in Tennessee since 1896.

About Lodge
Lodge Cast Iron has been making heirloom-quality cookware and accessories since 1896. Backed by over 120 years of experience, each piece of Lodge cookware is crafted for durability and versatility.

We don’t just make cookware — we make memories that last for generations.

Lodge is a family-owned company.
- True
- False/Don’t know

According to the description above, Lodge has been making cookware since 1896.
- True
- False/Don’t know

The product described above is…
• Made using the original casting and finishing methods that have remained unchanged
• Made using the latest technology

Please answer the following questions about the Blacklock collection products.

To what extent was your overall impression of this product positive (vs. negative)?
1 = Negative, 9 = Positive

Overall, to what extent did you see this product as desirable (vs. undesirable)?
1 = Undesirable, 9 = Desirable

To what extent was your overall impression of this product favorable (vs. unfavorable)?
1 = Unfavorable, 9 = Favorable

To what extent did you like (vs. dislike) this product?
1 = Dislike, 9 = Like

Please answer the following questions about the Chef Collection products.

[Product evaluation - All questions presented in randomized order; Adapted from Argo and Dahl (2018)]

To what extent was your overall impression of this product positive (vs. negative)?
1 = Negative, 9 = Positive

Overall, to what extent did you see this product as desirable (vs. undesirable)?
1 = Undesirable, 9 = Desirable

To what extent was your overall impression of this product favorable (vs. unfavorable)?
1 = Unfavorable, 9 = Favorable

To what extent did you like (vs. dislike) this product?
1 = Dislike, 9 = Like

Please answer the following questions about the Lodge brand.

Based on this information…

Lodge seems like a brand that gives back to its consumers.
Lodge seems like a brand with moral principles.
Lodge seems like a brand that is true to a set of moral values.
Lodge seems like a brand that cares about consumers.
Lodge seems like a brand with a history.
Lodge seems like a timeless brand.
Lodge seems like a brand that survives times.
Lodge seems like a brand survives trends.
1 = Strongly disagree, 9 = Strongly agree

What is your gender?
• Male
• Female
• Prefer not to answer
• Other

What is your age?
We recruited participants on Prolific and collected data using Qualtrics software. Participants were randomly assigned to one of 6 conditions in a 3 (Enhancement Framing: Control, Continuous, Discontinuous) x 2 (Product type: Original vs. Enhanced) between-subjects design.

Thank you for taking this survey!

In this survey, you will be asked about your preferences.

Fratellino’s is an Italian-style sauce and condiment brand that was originally founded in 1911. It is best known for its “Original Recipe tomato sauce”.

Fratellino’s began over a century ago when Martina Fratellino started selling tomato sauce right from her front porch. Word started to spread about Martina’s amazing sauce, which beautifully combined vine-ripened tomatoes and flavorful herbs. Soon, Fratellino’s became a staple in homes across America.

Below is a description of Fratellino's new "Family Table Recipe" tomato sauce. Please review it carefully as you will be asked about it:
Over time, consumers' tastes have changed. Recently, Fratellino’s set out to create a new recipe that scores even better with today’s consumers. After conducting several blind taste tests, Fratellino's created the new and improved "Family Table Recipe" tomato sauce.

[Control condition]

“We are proud to introduce our new **Family Table Recipe** tomato sauce,” said Mark Lucali, the current CEO.

[Discontinuous condition]

“We are proud to introduce our new **Family Table Recipe** tomato sauce,” said Mark Lucali, the current CEO.

“We have used modern methods to improve the taste and texture of our product. The result is a **bold departure** from our Original Recipe. It is a recipe that appeals to everyone’s tastes, which is not just a new recipe but a **completely new way of thinking**. We are proud to showcase our **distinct leap forward**.”

[Continuous condition]

“We are proud to introduce our new **Family Table Recipe** tomato sauce,” said Mark Lucali, the current CEO.

“Inspired by the traditional techniques Martina used to create her tomato sauce back in 1911, we have improved the taste and texture of our product. The result is a **return to our company’s earliest beginnings**. It is a recipe that appeals to everyone’s tastes, which is **consistent with Martina's original vision to create a sauce that brings as many smiles as possible**. We are proud to showcase our **return to our true historical roots as a company**.”

[Original product condition]
Now, we would like to get your opinion regarding Fratellino’s “Original Recipe” tomato sauce.

[Enhanced product condition]
Now, we would like to get your opinion regarding Fratellino’s new “Family Table Recipe” tomato sauce.

[Product evaluation - All questions presented in randomized order; Adapted from Argo and Dahl (2018)]

To what extent was your overall impression of this product positive (vs. negative)?

1 = Negative, 9 = Positive

Overall, to what extent did you see this product as desirable (vs. undesirable)?

1 = Undesirable, 9 = Desirable

To what extent was your overall impression of this product favorable (vs. unfavorable)?

1 = Unfavorable, 9 = Favorable
To what extent did you like (vs. dislike) this product?
   1 = Dislike, 9 = Like

What is your gender?
   • Male
   • Female
   • Prefer not to answer
   • Other

What is your age?
APPENDIX 2F: ADDITIONAL DATA FOR STUDY 1A
ON FLAGSHIP PRODUCT CUE

In this study, we test our prediction that other operationalization of the flagship product cue should also be selectively associated with perceptions of continuity cue as long as it effectively signals the temporal dimension. Study 1a showed that presence (versus absence) of a well-known product (a flagship product) selectively affects continuity authenticity and hence was identified as one of the longevity cues. However, there could be a concern that other dimensions drove the results. For example, the flagship product cue used in study 1a conflated duration and the presence of a representative product (“Brand A is well-known for its signature product, which has remained unchanged.”). In this study, we used the term ‘flagship product’ instead of ‘signature product’ in order to examine if there would be similar increases in continuity authenticity but not integrity authenticity. Additionally, to ensure that the ‘cue absent’ condition was better matched with the ‘cue present’ condition on quality inference, we revised the ‘cue absent’ condition to just compare inferences between a brand that was known for a particular flagship product and a brand that had various product offerings.

Method

We recruited 99 participants ($M_{age} = 32.53$; 53% female) on Amazon’s Mechanical Turk and randomly assigned them to either flagship product cue present or absent condition. In the flagship product cue present condition, participants read: “Brand A is well-known for its long-standing flagship product.” In the revised flagship product cue absent condition, participants
read: “While Brand A is not known for one type of product, it has various product offerings.”

Following the procedure used in study 1a, participants rated “Brand A” using the 15-item PBA scale (Morhart et al. 2015). For each item, participants also had an option to select “I do not have enough information to answer.”

<table>
<thead>
<tr>
<th>Present condition</th>
<th>Absent condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flagship product</td>
<td>Brand A is well-known for its long-standing flagship product</td>
</tr>
</tbody>
</table>

Results

We conducted an omnibus 2 X 2 repeated-measures ANOVA using flagship product cue salience (absent vs. present) as a between-subjects factor and the type of authenticity (continuity authenticity vs. integrity authenticity) as a within-subjects factor. This analysis indicated a significant two-way interaction, $F(1, 83) = 6.25, p = .014, \eta^2 = .07$. As predicted, the flagship product cue manipulation had a significant effect on continuity authenticity ($t(91) = 4.79, p < .001, d = 1.00$) but it did not significantly affect integrity authenticity ($t(84) = 1.47, p = .15$).

**TABLE 1**

**EFFECT SIZE OF THE FLAGSHIP PRODUCT CUE ON EACH DIMENSION OF AUTHENTICITY**

<table>
<thead>
<tr>
<th>Heritage Cues</th>
<th>Effect on Continuity Authenticity</th>
<th>Effect Size (Cohen’s d)</th>
<th>Effect on Integrity Authenticity</th>
<th>Effect Size (Cohen’s d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flagship product</td>
<td>Present 7.42 Absent 6.34</td>
<td>1.00</td>
<td>Present 5.89 Absent 5.52</td>
<td>0.32</td>
</tr>
</tbody>
</table>

This result is consistent with the pattern we identified in study 1a, wherein the flagship product cue selectively affected perceptions of continuity authenticity.
We conducted a factor analysis (Oblimin rotation) of the eight continuity authenticity and integrity authenticity PBA subscale items to identify the latent structure among the dependent variables. This analysis indicated that the items formed two reliable factors with Eigenvalues > 1, which together accounted for 86% of the variance in scores. The first factor consisted of the four items that measured continuity authenticity. The second factor consisted of the other four items that measured integrity authenticity (see table 1). Based on this analysis, we averaged the items that loaded onto the first factor to create a measure of continuity authenticity ($\alpha = .95$) and averaged the items that loaded onto the second factor as integrity authenticity ($\alpha = .95$). Instances in which participants indicated that they did not have enough information to answer were omitted pairwise so that we were able to use all available responses.

**TABLE 1**

FACTOR ANALYSIS RESULTS OF CONTINUITY AND INTEGRITY PBA SUBSCALE ITEMS

<table>
<thead>
<tr>
<th>Rotated Component Matrix</th>
<th>Component</th>
<th>Original Assignment (Morhart et al. 2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Factor 1</td>
<td>Factor 2</td>
</tr>
<tr>
<td>Brand A seems like a brand that survives times.</td>
<td>0.97</td>
<td>-0.04</td>
</tr>
<tr>
<td>Brand A seems like a brand with a history.</td>
<td>0.94</td>
<td>-0.06</td>
</tr>
<tr>
<td>Brand A seems like a brand that survives trends.</td>
<td>0.90</td>
<td>0.03</td>
</tr>
<tr>
<td>Brand A seems like a timeless brand.</td>
<td>0.86</td>
<td>0.10</td>
</tr>
<tr>
<td>Brand A seems like a brand with moral principles.</td>
<td>-0.01</td>
<td>0.94</td>
</tr>
<tr>
<td>Brand A seems like a brand that cares about consumers.</td>
<td>0.003</td>
<td>0.94</td>
</tr>
<tr>
<td>Brand A seems like a brand that is true to a set of moral values.</td>
<td>0.04</td>
<td>0.92</td>
</tr>
<tr>
<td>Brand A seems like a brand that gives back to its consumers.</td>
<td>-0.02</td>
<td>0.91</td>
</tr>
</tbody>
</table>

We then conducted an omnibus 6 X 2 X 2 repeated-measures ANOVA using cue type and cue salience as between-subjects factors, and the type of authenticity (continuity authenticity
vs. integrity authenticity) as a within-subjects factor. This analysis indicated a significant three-way interaction, $F(5, 339) = 22.56, p < .001, \eta^2_p = .25$.

For each heritage cue, we then examined the effects of cue salience (high vs. low) on the two authenticity dimensions. The results of this analysis are reported in table 2. In sum, we found that the cues of duration and a flagship product had larger effects on judgments of continuity authenticity than on judgments of integrity authenticity. The use of black and white versus color photography had a marginally significant effect only on continuity authenticity. By contrast, the cues of family ownership and core values had larger effects on perceptions of integrity authenticity. As manipulated here, the original location cue had roughly similar effects on continuity authenticity and integrity authenticity, and the symbols cue had minimal effects on both authenticity dimensions.

<table>
<thead>
<tr>
<th>Heritage Cues</th>
<th>Effect on Continuity Authenticity</th>
<th>Effect on Integrity Authenticity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Present</td>
<td>Absent</td>
</tr>
<tr>
<td>Duration</td>
<td>8.02</td>
<td>2.97</td>
</tr>
<tr>
<td>Flagship product</td>
<td>7.79</td>
<td>4.42</td>
</tr>
<tr>
<td>Family ownership</td>
<td>6.13</td>
<td>4.90</td>
</tr>
<tr>
<td>Core values</td>
<td>6.04</td>
<td>5.90</td>
</tr>
<tr>
<td>Original location</td>
<td>7.55</td>
<td>5.21</td>
</tr>
<tr>
<td>Symbols</td>
<td>6.49</td>
<td>6.02</td>
</tr>
</tbody>
</table>
APPENDIX 2H: REPLICATION OF STUDY 1A

Method

We recruited 601 participants ($M_{\text{age}} = 39.36$; 59% female) from Prolific. Participants were randomly assigned to one of 12 conditions in a 6 (heritage cue type: duration, flagship product, symbols, family-ownership, core values, original location) X 2 (salience: present vs. absent) between-subjects design.

Participants were informed that they would read information about a brand (which we always referred to as “Brand A”) and answer a few questions about it. On the next page, participants read a brief sentence about Brand A (table 1 details the manipulation used for each heritage cue with all stimuli in appendix 2A). Then, all participants rated the brand on the 15-item PBA scale (see table 2 for individual items; Morhart et al. 2015). For each scale item, participants responded using a 9-point scale (1 = Strongly Disagree, 9 = Strongly Agree). Additionally, given that participants were provided with very little information about the brand, they were also given the option to select “I do not have enough information to answer.”

Results and Discussion

We first conducted a factor analysis (Oblimin rotation) of the 15 PBA items to identify the latent structure among the dependent variables. This analysis indicated that the items formed two reliable factors with Eigenvalues > 1, which together accounted for 81% of the variance in scores. The first factor consisted of the four items that measured continuity authenticity. The
second factor consisted of the other eleven items, with the integrity subscale items having the highest factor loadings (see table 1). Based on this analysis, we averaged the items that loaded onto the first factor to create an index of continuity authenticity ($\alpha = .94$) and averaged the items that loaded onto the second factor to create an index, which we labeled integrity authenticity (since the integrity subscale items had the highest loadings on that factor; $\alpha = .98$). Instances in which participants indicated that they did not have enough information to answer were omitted pairwise so that we were able to use all available responses.

**TABLE 1**

FACTOR ANALYSIS OF THE PBA ITEMS

<table>
<thead>
<tr>
<th>Rotated Component Matrix</th>
<th>Component Factor 1</th>
<th>Component Factor 2</th>
<th>Original Assignment (Morhart et al. 2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand A seems like a brand that survives trends.</td>
<td>0.96</td>
<td>-0.09</td>
<td>Continuity</td>
</tr>
<tr>
<td>Brand A seems like a brand that survives times.</td>
<td>0.94</td>
<td>-0.03</td>
<td>Continuity</td>
</tr>
<tr>
<td>Brand A seems like a timeless brand.</td>
<td>0.86</td>
<td>0.13</td>
<td>Continuity</td>
</tr>
<tr>
<td>Brand A seems like a brand with a history.</td>
<td>0.76</td>
<td>0.17</td>
<td>Continuity</td>
</tr>
<tr>
<td>Brand A seems like a brand that reflects important values that people care about.</td>
<td>-0.16</td>
<td>0.99</td>
<td>Symbolism</td>
</tr>
<tr>
<td>Brand A seems like a brand with moral principles.</td>
<td>-0.04</td>
<td>0.95</td>
<td>Integrity</td>
</tr>
<tr>
<td>Brand A seems like a brand that gives back to its customers.</td>
<td>-0.02</td>
<td>0.93</td>
<td>Integrity</td>
</tr>
<tr>
<td>Brand A seems like a brand that cares about consumers.</td>
<td>-0.003</td>
<td>0.91</td>
<td>Integrity</td>
</tr>
<tr>
<td>Brand A seems like a brand that adds meaning to people's lives.</td>
<td>0.03</td>
<td>0.90</td>
<td>Symbolism</td>
</tr>
<tr>
<td>Brand A seems like a brand that is true to a set of moral values.</td>
<td>0.05</td>
<td>0.89</td>
<td>Integrity</td>
</tr>
<tr>
<td>Brand A seems like a brand that connects people with what is really important.</td>
<td>0.02</td>
<td>0.89</td>
<td>Symbolism</td>
</tr>
<tr>
<td>Brand A seems like a brand that will not betray you.</td>
<td>-0.01</td>
<td>0.88</td>
<td>Credibility</td>
</tr>
<tr>
<td>Brand A seems like a brand that connects people with their real selves.</td>
<td>0.07</td>
<td>0.84</td>
<td>Symbolism</td>
</tr>
<tr>
<td>Brand A seems like an honest brand.</td>
<td>0.13</td>
<td>0.77</td>
<td>Credibility</td>
</tr>
<tr>
<td>Brand A seems like a brand that delivers on its promises.</td>
<td>0.15</td>
<td>0.76</td>
<td>Credibility</td>
</tr>
</tbody>
</table>
We then conducted an omnibus 6 X 2 X 2 repeated-measures ANOVA using cue type and cue salience as between-subjects factors, and type of authenticity (continuity authenticity vs. integrity authenticity) as a within-subjects factor. This analysis indicated a significant three-way interaction, $F(5, 350) = 32.25, p < .001, \eta^2_p = .32$.

For each heritage cue, we then examined the effects of cue salience (present vs. absent) on the two authenticity dimensions. The results of this analysis are reported in table 2. In sum, we found that the cues of duration and flagship product had larger effects on perceptions of continuity authenticity than on integrity authenticity. By contrast, the cues of family ownership and core values had larger effects on perceptions of integrity authenticity. As manipulated here, the original location cue had roughly equivalent effects on continuity authenticity and integrity authenticity, while the use of symbols (black and white vs. color photographs) had minimal effects on both dimensions.

<table>
<thead>
<tr>
<th>Heritage Cues</th>
<th>Effect on Continuity Authenticity</th>
<th>Effect on Integrity Authenticity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Present</td>
<td>Absent</td>
</tr>
<tr>
<td>Duration</td>
<td>7.63</td>
<td>2.17</td>
</tr>
<tr>
<td>Flagship product</td>
<td>7.70</td>
<td>4.32</td>
</tr>
<tr>
<td>Family ownership</td>
<td>6.38</td>
<td>4.96</td>
</tr>
<tr>
<td>Core values</td>
<td>6.07</td>
<td>6.22</td>
</tr>
<tr>
<td>Original location</td>
<td>6.95</td>
<td>4.58</td>
</tr>
<tr>
<td>Symbols</td>
<td>5.64</td>
<td>4.84</td>
</tr>
</tbody>
</table>
APPENDIX 2I: STUDY 1B FACTOR ANALYSIS RESULTS OF PBA ITEMS

We conducted a factor analysis (Oblimin rotation) of the 15 PBA items to identify the latent structure among the dependent variables. Consistent with factor analysis results in study 1a, this analysis indicated that the items formed two reliable factors with Eigenvalues > 1, which together accounted for 83% of the variance in scores. The first factor consisted of the four items that measured continuity authenticity. The second factor consisted of the remaining nine items.

TABLE 1

FACTOR ANALYSIS RESULTS OF PBA ITEMS

<table>
<thead>
<tr>
<th>Rotated Component Matrix</th>
<th>Component Assignment (Morhart et al. 2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Factor 1</td>
</tr>
<tr>
<td>Brand A seems like a brand with a history.</td>
<td>0.97</td>
</tr>
<tr>
<td>Brand A seems like a brand that survives times.</td>
<td>0.93</td>
</tr>
<tr>
<td>Brand A seems like a brand that survives trends.</td>
<td>0.88</td>
</tr>
<tr>
<td>Brand A seems like a timeless brand.</td>
<td>0.88</td>
</tr>
<tr>
<td>Brand A seems like a brand with moral principles.</td>
<td>-0.11</td>
</tr>
<tr>
<td>Brand A seems like a brand that is true to a set of moral values.</td>
<td>-0.09</td>
</tr>
<tr>
<td>Brand A seems like a brand that cares about consumers.</td>
<td>-0.02</td>
</tr>
<tr>
<td>Brand A seems like an honest brand.</td>
<td>-0.01</td>
</tr>
<tr>
<td>Brand A seems like a brand that reflects important values that people care about.</td>
<td>0.02</td>
</tr>
<tr>
<td>Brand A seems like a brand that gives back to its consumers.</td>
<td>0.02</td>
</tr>
<tr>
<td>Brand A seems like a brand that connects people with what is really important.</td>
<td>0.04</td>
</tr>
<tr>
<td>Brand A seems like a brand that connects people with their real selves.</td>
<td>0.06</td>
</tr>
<tr>
<td>Brand A seems like a brand that adds meaning to people's lives.</td>
<td>0.06</td>
</tr>
<tr>
<td>Brand A seems like a brand that will not betray you.</td>
<td>0.01</td>
</tr>
<tr>
<td>Brand A seems like a brand that delivers on its promises.</td>
<td>0.13</td>
</tr>
</tbody>
</table>
APPENDIX 2J: STUDY 1B RESULTS WITH INTEGRITY AND CONTINUITY SUBSCALE ITEMS ONLY

We first conducted a factor analysis (Oblimin rotation) for the eight continuity authenticity and integrity authenticity PBA subscale items in order to identify the latent structure among the dependent variables. This analysis indicated that the items formed two reliable factors with Eigenvalues > 1, which together accounted for 87% of the variance in scores. The first factor consisted of the four items that measured continuity authenticity. The second factor consisted of the other four items that measured integrity authenticity (see table 1). Based on this analysis, we averaged the items that loaded onto the first factor to create a measure of continuity authenticity ($\alpha = .94$) and averaged the items that loaded onto the second factor as integrity authenticity ($\alpha = .95$). Instances in which participants indicated that they did not have enough information to answer were omitted pairwise so that we were able to use all available responses.

TABLE 1
FACTOR ANALYSIS RESULTS OF CONTINUITY AND INTEGRITY PBA SUBSCALE ITEMS

<table>
<thead>
<tr>
<th>Rotated Component Matrix</th>
<th>Component</th>
<th>Original Assignment (Morhart et al. 2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Factor 1</td>
<td>Factor 2</td>
</tr>
<tr>
<td>Brand A seems like a brand with a history.</td>
<td>0.95</td>
<td>-0.15</td>
</tr>
<tr>
<td>Brand A seems like a brand that survives times.</td>
<td>0.94</td>
<td>0.04</td>
</tr>
<tr>
<td>Brand A seems like a timeless brand.</td>
<td>0.89</td>
<td>0.09</td>
</tr>
<tr>
<td>Brand A seems like a brand that survives trends.</td>
<td>0.89</td>
<td>0.07</td>
</tr>
<tr>
<td>Brand A seems like a brand with moral principles.</td>
<td>-0.05</td>
<td>0.97</td>
</tr>
<tr>
<td>Brand A seems like a brand that is true to a set of moral values.</td>
<td>-0.03</td>
<td>0.97</td>
</tr>
<tr>
<td>Brand A seems like a brand that cares about consumers.</td>
<td>0.02</td>
<td>0.92</td>
</tr>
<tr>
<td>Brand A seems like a brand that gives back to its consumers.</td>
<td>0.08</td>
<td>0.89</td>
</tr>
</tbody>
</table>

We then conducted an omnibus 2 X 2 X 2 repeated-measures ANOVA using longevity cues (high vs. low) X values cues (high vs. low) as between-subjects factors, and the type of
authenticity (continuity authenticity vs. integrity authenticity) as a within-subjects factor. This analysis indicated a significant two-way interaction between the manipulation of longevity cues (high vs. low) and the type of authenticity, $F(1, 368) = 344.87, p < .001, \eta^2_p = 0.48$, and a significant two-way interaction between the manipulation of values cues (high vs. low) and the type of authenticity, $F(1, 368) = 82.90, p < .001, \eta^2_p = 0.18$. There was no significant three-way interaction, $F(1, 368) = 2.59, p = .11$.

Ratings of continuity authenticity. For continuity perceptions, 4.0% of participants indicated that there was not enough information to answer any of the four items in the subscale. Of the remaining participants, an ANOVA revealed a main effect of longevity cues on continuity authenticity ($M_{high-longevity} = 7.47, SD = 1.33$ vs. $M_{low-longevity} = 4.12, SD = 2.24$); $F(1, 385) = 335.67, p < .001, d = 1.82$. By contrast, the manipulation of values cues did not have a significant effect on continuity authenticity ($M_{high-values} = 5.91, SD = 2.68$ vs. $M_{low-values} = 5.74, SD = 2.26$); $F(1, 385) = 3.44, p = .064$.

Ratings of integrity authenticity. For integrity perceptions, 5.7% of participants indicated that there was not enough information to answer any of the four items in the subscale. Of the remaining participants, an ANOVA revealed a main effect of values cues on integrity authenticity ($M_{high-values} = 7.19, SD = 1.34$ vs. $M_{low-values} = 5.11, SD = 1.76$; $F(1, 378) = 171.31, p < .001, d = 1.33$), while manipulation of longevity cues had no effect ($M_{high-longevity} = 6.04, SD = 2.12$ vs. $M_{low-longevity} = 6.31, SD = 1.58$; $F(1, 378) = 1.09, p = .30$).
APPENDIX 2K: STUDY 2 MAIN ANALYSES USING
A SINGLE EVALUATION INDEX

We also conducted an additional analysis using a single evaluation index. In a factor analysis (Varimax rotation), the four product evaluation items and three behavioral intention items formed one factor with Eigenvalue >1, which accounted for 81% of the variance in scores. Hence, we created an index by averaging all seven items (α = .96).

### TABLE 1
FACTOR ANALYSIS RESULTS OF PRODUCT EVALUATIONS AND BEHAVIORAL INTENTION ITEMS

<table>
<thead>
<tr>
<th>Component Matrix</th>
<th>Factor 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>To what extent did you like (vs. dislike) the product?</td>
<td>.93</td>
</tr>
<tr>
<td>To what extent was your overall impression of the product favorable (vs. unfavorable)?</td>
<td>.92</td>
</tr>
<tr>
<td>To what extent was your overall impression of the hand cream positive (vs. negative)?</td>
<td>.91</td>
</tr>
<tr>
<td>I would be interested in using this hand cream again</td>
<td>.91</td>
</tr>
<tr>
<td>Overall, to what extent did you see the product as desirable (vs. undesirable)?</td>
<td>.88</td>
</tr>
<tr>
<td>I would recommend this hand cream to others</td>
<td>.88</td>
</tr>
<tr>
<td>I would consider purchasing this hand cream</td>
<td>.85</td>
</tr>
</tbody>
</table>

Product Assessments. A 2 (brand type: heritage vs. control) X 2 (product type: original vs. enhanced) ANOVA showed that there was no main effect of brand type ($F(1, 370) = 0.24, p = .63$) and no main effect of product type ($F(1, 370) = 0.05, p = .83$). However, the interaction was significant, $F(1, 370) = 5.92, p = .015, \eta^2_p = .016$. In the heritage brand conditions, there was a marginal decrease in product assessments between the enhanced hand cream and the original hand cream ($M_{\text{enhanced}} = 5.73, SD = 2.01$ vs. $M_{\text{original}} = 6.26, SD = 1.81$); $F(1, 370) = 3.58, p = .059, d = 0.28$. However, in the control brand conditions, evaluations of the original and enhanced product did not significantly differ ($M_{\text{enhanced}} = 6.31, SD = 1.88$ vs. $M_{\text{original}} = 5.87, SD = 1.81$; $F(1, 370) = 2.41, p = .12$). Furthermore, participants rated the enhanced formula from the
heritage brand significantly lower than the enhanced formula from the control brand, $F(1, 370) = 4.21, p = .041, d = 0.30$. 
The rate of exclusion in the longevity cues-enhanced product condition (15.7%) was significantly higher than those in the three other conditions, $X^2 (3, N = 601) = 10.27, p = .016$. Thus, we conducted the same main analyses reported in the manuscript but without excluding any participants.

<p>| TABLE 1 |
|------------------|-----------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th></th>
<th>Rate of Exclusion</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Longevity cues-</td>
<td>15.7%</td>
<td>Longevity cues-</td>
<td>9.7%</td>
</tr>
<tr>
<td>Enhanced product</td>
<td></td>
<td>Original product</td>
<td></td>
</tr>
<tr>
<td>Longevity cues-</td>
<td>9.7%</td>
<td>Values cues-</td>
<td>5.8%</td>
</tr>
<tr>
<td>Original product</td>
<td></td>
<td>Enhanced product</td>
<td></td>
</tr>
<tr>
<td>Values cues-</td>
<td>5.8%</td>
<td>Values cues-</td>
<td>6.3%</td>
</tr>
<tr>
<td>Original product</td>
<td></td>
<td>Enhanced product</td>
<td></td>
</tr>
</tbody>
</table>

Results

We recruited 601 participants ($M_{age} = 39.28$; 53% female) from Amazon’s Mechanical Turk. Participants were randomly assigned to one of four conditions in a 2 (heritage cues: longevity vs. values) x 2 (product type: original vs. enhanced product) between-subjects design.

*Product Evaluations.* We conducted a 2 (heritage type: longevity vs. values) X 2 (product type: original vs. enhanced) ANOVA on the product evaluations. This analysis indicated no main effect of heritage type ($M_{longevity} = 7.63, SD = 1.36$ vs. $M_{values} = 7.56, SD = 1.27; F(1, 597) = 0.05, p = .83$). There was a significant main effect of product type ($M_{enhanced} = 7.46, SD = 1.37$ vs. $M_{original} = 7.73, SD = 1.24; F(1, 597) = 5.90, p = .015, d = 0.21$), whereby the original product was rated higher than the enhanced product. More importantly, there was a significant interaction between heritage type and product type, $F(1, 597) = 5.11, p = .024, \eta^2_p = .010$. When brand heritage was signaled using longevity cues, participants rated the enhanced product less
favorably than the original product ($M_{\text{enhanced}} = 7.33$, $SD = 1.52$ vs. $M_{\text{original}} = 7.84$, $SD = 1.19$; $F(1, 597) = 11.05, p = .001, d = 0.37$). However, when brand heritage was signaled using values cues, evaluations of the original and enhanced product did not significantly differ ($M_{\text{enhanced}} = 7.55$, $SD = 1.25$ vs. $M_{\text{original}} = 7.57$, $SD = 1.31$; $F(1, 597) = .014, p = .91$).

*Ratings of Continuity Authenticity.* Again, offering an enhanced product appeared to reduce ratings of continuity authenticity, regardless of which cues were initially highlighted. A two-way ANOVA revealed a significant main effect of product type, ($M_{\text{original}} = 8.11$, $SD = 1.01$ vs. $M_{\text{enhanced}} = 7.85$, $SD = 1.14$; $F(1, 597) = 7.73, p = .006, d = 0.24$), but no main effect of heritage type ($M_{\text{longevity}} = 8.03$, $SD = 1.07$ vs. $M_{\text{values}} = 7.93$, $SD = 1.09$; $F(1, 597) = 0.48, p = .49$) and no interaction ($F(1, 597) = 0.011, p = .92$). In the longevity cues conditions, *Lodge* was rated significantly higher on continuity authenticity when participants evaluated the original product than when they evaluated the enhanced product ($M_{\text{original}} = 8.14$, $SD = 0.98$ vs. $M_{\text{enhanced}} = 7.88$, $SD = 1.17$; $F(1, 597) = 4.18, p = .041, d = 0.24$). In the values cues conditions, we observed a similar pattern, but this between-condition difference was not significant ($M_{\text{original}} = 8.07$, $SD = 1.05$ vs. $M_{\text{enhanced}} = 7.83$, $SD = 1.11$; $F(1, 597) = 3.56, p = .06$).

*Ratings of Integrity Authenticity.* By contrast, ratings of integrity authenticity were not significantly affected by the heritage type ($M_{\text{values}} = 6.78$, $SD = 1.29$ vs. $M_{\text{longevity}} = 6.61$, $SD = 1.37$; $F(1, 597) = 3.12, p = .078$) as well as product type ($M_{\text{original}} = 6.76$, $SD = 1.37$ vs. $M_{\text{enhanced}} = 6.63$, $SD = 1.29$; $F(1, 597) = 2.20, p = .14$). There was no significant interaction between the heritage type and product type, $F(1, 597) = 0.026, p = .87$. In both the longevity cues ($M_{\text{original}} = 6.69$, $SD = 1.40$ vs. $M_{\text{enhanced}} = 6.51$, $SD = 1.32$; $F(1, 597) = 1.36, p = .24$) and the values cues conditions ($M_{\text{original}} = 6.87$, $SD = 1.32$ vs. $M_{\text{enhanced}} = 6.72$, $SD = 1.26$; $F(1, 597) = 0.87, p = .35$),
*Lodge* was not rated differently on integrity authenticity when participants evaluated the original versus the enhanced product.

**Mediation.** We then tested whether ratings of continuity authenticity mediated the effect of product type (original vs. enhanced) on product evaluations. Because there was no direct effect of product type on evaluations in the values cue conditions (estimated effect = −0.16, *p* = .14), we conducted mediation analyses for the conditions in which longevity cues were highlighted. We included product type (original vs. enhanced product) as the independent variable, continuity authenticity, and integrity authenticity as mediators and product evaluations as the dependent variable (PROCESS Model 4, Hayes 2013; 10,000 bootstrapped samples). Using a competitive mediation model, continuity authenticity significantly explained the decrease in product evaluations of the enhanced (vs. original) product (estimated indirect effect = .23, SE = .11, 95% CI = .01 to .40) while integrity authenticity did not (estimated indirect effect = .02, SE = .03, 95% CI = -.02 to .08).