Favorite Possessions Protect Subjective Wellbeing under Income Inequality

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ABSTRACT

Rising income inequality is taking a toll on people's subjective wellbeing (SWB), and many commentators have implicated the role of material possessions, and thereby marketing, in this regard. Making a more nuanced argument, the present research proposes that certain material possessions – namely, favorite possessions – can mitigate the detrimental psychological effect of income inequality on SWB. In support of this proposition, experimental data from nine countries (N=3,687) and social media posts from 138 countries (N=31,332) converge to show that, while SWB generally declines as income inequality increases, encouraging consumers to attend to their favorite possessions can mitigate the negative effect of inequality on SWB. This is because attending to favorite possessions reduces consumers' tendency to make social comparisons related to material resources and wealth, which otherwise arise when income inequality is high. Consequently, even when they perceive high income inequality, consumers feel less deprived relative to others, thereby buffering their SWB. These findings have meaningful consumer welfare implications. In particular, one way consumers can feel happier with their quality of life in an unequal society is to avoid comparing their material wealth to that of others and instead attend to the material possessions that are most special to them.

Keywords: subjective wellbeing, income inequality, special possessions, consumerism.

"Oh Lord, won't you buy me a Mercedes Benz?

My friends all drive Porsches, I must make amends."

- Janis Joplin (1970)

The old adage that "money buys happiness" has garnered limited empirical support. While earning a higher income can improve one's wellbeing, the gains come with diminishing returns (Cummins 2000; Diener et al. 1993). Moreover, independent of one's actual income, the perception that one lives in an unequal society makes everyone less happy (Oshio and Urakawa 2014). Yet many consumers continuously attempt to buy happiness, particularly when income inequality is high. Many, for instance, will purchase conspicuous, status-signaling goods in an attempt to "keep up with the Joneses." But "keeping up" feels impossible in a highly unequal society, so even high-income earners are left feeling relatively deprived of material resources and wealth (cf. Sharma and Alter 2012). Many then fall victim to needless material acquisition, increased debt, and dwindling savings (Christen and Morgan 2005; Jaikumar and Sarin 2015; Walasek and Brown 2015). Consequently, although people facing income inequality tend to buy and spend more, they are no happier as a result.

But is there a way in which material acquisition can promote happiness? Answering this question is critical to multiple stakeholders who recognize the importance of cultivating and safeguarding happiness, particularly as income inequality rises globally. Indeed, research has established that subjective wellbeing (SWB), which refers to the perception that one's overall quality of life is good, positively influences outcomes such as health, longevity, creativity, delay of gratification, social relationships, and trust (De Neve et al. 2013; Sirgy 2021). For these reasons, SWB can impact public policy and is an outcome of interest to governments and NGOs across the world (Kahneman et al. 2004; Kahneman and Deaton 2010). Private organizations

also take steps to improve employees' SWB because happy employees are more productive (DiMaria, Peroni and Sarracino 2020). Happy people also benefit the society around them, as SWB increases pro-social and pro-environmental behaviors (Sirgy 2021; Sulemana 2016). And, of course, happiness benefits individuals themselves, as SWB arguably is the ultimate pursuit for all humans (Diener, Lucas and Oishi 2018; Diener, Scollon and Lucas 2009).

In the present research, we explore the interplay between SWB, income inequality, and material possessions. Specifically, we examine how material goods can mitigate the negative effect of income inequality on consumer SWB. Prior research suggests that buying material goods makes consumers less happy than buying experiences (Gilovich, Kumar and Jampol 2015) or buying time (Whillans et al. 2017). Such findings imply that one way to protect the SWB of consumers facing income inequality would be to redirect their attention away from material goods and toward other types of consumption. In contrast to that approach, here we explore the possibility that consumers *can* derive SWB from material goods, and can do so not by buying new goods but by focusing on material goods they already own. We argue that attending to favorite possessions – material possessions that consumers subjectively consider special and meaningful – can reduce the negative effect of perceived income inequality on SWB.

The value inherent to favorite possessions is not readily quantified or socially compared (c.f. Holbrook 1994; Kopytoff 1986; Price, Arnould and Curasi 2000). We draw on this inherent quality of favorite possessions to argue that consumers who attend to their favorite possessions (e.g., by recollecting and writing about them, or posting online about them) should make fewer social comparisons related to material resources and wealth. Consequently, by reducing social comparisons, consumers facing income inequality should feel less deprived relative to others and, in turn, happier with their lives.

Our research makes three key theoretical contributions. First, we contribute to research on consumption and happiness. Whereas prior research tends to show that material goods have limited benefits on happiness, we demonstrate that drawing consumers' attention to their favorite possessions is one way material acquisition protects rather than hurts consumers' SWB under high income inequality. Second, we extend prior evidence that material possessions tend to foster social comparison (Carter and Gilovich 2010; Howell and Hill 2009) by showing that a certain type of material possession, namely, a favorite, can reduce social comparison when income inequality is perceived high. Third, we contribute to research on income inequality and SWB by showing that perceived income inequality does not invariably reduce SWB. Rather, consumer interventions can mitigate the link between perceived income inequality and feelings of relative deprivation. Feelings of relative deprivation are evident when we examine baseline conditions (and thus, presumably, are prevalent by default), but such feelings are reduced among consumers who attend to favorite possessions. In what follows, we bring together the literatures on income inequality, material consumption, and SWB to develop our key propositions.

CONCEPTUAL DEVELOPMENT

Income, wealth, and socioeconomic status (SES) are related to, but different from, income inequality. While income, wealth and SES are micro, individual-level variables, *income inequality* is a macro, society-level assessment, reflecting "the extent to which income is evenly distributed within a population" (International Monetary Fund 2022). Further, whereas income and SES positively predict SWB (Diener, Diener and Diener 1995; Diener, Lucas and Oishi. 2018; Minkov 2009), income inequality tends to negatively predict SWB, as described next.

Income Inequality and SWB

Measures of income inequality can be subjective or objective. Objective measures capture the actual level of inequality across a society. The Gini Index, a common measure, scores a given society from zero (where every person has the same income) to 100 (where a single person has all the income and others have none; Gini 1912)[1]. In contrast to objective measures, subjective measures capture *perceptions* of income inequality – i.e., the extent to which an individual perceives that income is distributed evenly among members of their society. Perceived income inequality thus varies among individuals within a society (Oshio and Urakawa 2014).

People may overestimate (Chambers, Swan, and Heesacker 2014) or underestimate (Norton and Ariely 2011) actual income inequality for various reasons, and subjective and objective measures have been observed to correlate only moderately to weakly (Loveless 2013). However, even people who underestimate inequality tend to perceive it to be higher than ideal (Norton and Ariely 2011), and even when actual inequality is relatively low, people may perceive it high. For example, perceptions of high inequality spurred outcry and led to France's recent "yellow vest movement," a grassroots call for economic reform, despite France's relatively low inequality (Gini Index 29.3, ranking 136th of 157 countries; The World Factbook 2018).

Prior psychology research thus tends to examine *perceived* income inequality (Gimpelson and Treisman 2018; Kuhn 2019; Loveless 2013; Ordabayeva and Chandon 2010). In terms of its effects on SWB, income inequality reduces SWB whether it is actual or perceived. Using objective measures of actual inequality, cross-country research (Hagerty 2000; Pickett and

[1] Formally, the Gini Index is the ratio of the area between the perfect equality line and the Lorenz curve divided by the total area under the perfect equality curve. The Lorenz curve plots coordinates where the x-axis is the cumulative normalized rank of family income of a region (lowest to highest), and the y-axis is the cumulative normalized family income of the region (lowest to highest). The World Bank, the CIA, and other bureaus periodically update Gini Indices. Currently, the World Bank database ranges from 23.2 (Slovak Republic) to 63 (South Africa), and the CIA database range from 0.3 (Jersey) and 22.7 (Faroe Islands) to 63 (South Africa).

Wilkinson 2010) and longitudinal research (Oishi, Kesebir and Diener 2011) show that income inequality reduces SWB (but see Alesina, Tella, and MacCullouch 2004 for a qualification). Similarly, within a given society, *perceived* income inequality reduces SWB (Oshio and Urakawa 2014). Based on these findings, perceived and actual inequality should both have negative effects on SWB. Keeping with prior research, we focus our conceptualization primarily on effects of perceived income inequality, noting "it is not the factual but the perceived inequality to which individuals respond" (Schneider 2016, p.1731). We also examine the effect of actual income inequality in Studies 4 and 5, and revisit the relationship between actual and perceived inequality in the General Discussion.

Income Inequality and Relative Deprivation

Income inequality can affect SWB through various psychological mechanisms. It may, for instance, reduce interpersonal trust and perceived fairness in a society (Oishi, Kesebir and Diener 2011). More pertinent to the present research, people facing income inequality feel deprived of wealth and material resources relative to others, and thus feel less happy with their lives (Podder 1996; Runciman 1966; Yitzhaki 1979). Feelings of relative deprivation arise because income inequality increases the gap between the rich and poor and, as the rich get richer, people perceive a greater gap between themselves and those above them in the income distribution. Such feelings of deprivation arise independent of one's own income level because, in a highly unequal society, there is usually someone better off to whom one can compare oneself (Sharma and Alter 2012).

For consumers to feel deprived of resources relative to others, they must engage in social comparison, and, specifically, upward comparison. Indeed, social comparison is ubiquitous in daily life and people do tend to compare upwards rather than downwards (Festinger 1954; Sánchez-Rodríguez et al. 2019b; Wood 1989). This tendency to look upwards explains why,

under income inequality, people compare themselves to members of their society whose wealth and resources surpass their own. Upward social comparison also explains why factors that precipitate social comparison (e.g., earning a relatively low income) exacerbate unhappiness under income inequality (Cheung and Lucas 2016). If part of the reason that consumers are unhappy in unequal societies is because inequality increases social comparison, it follows that factors that *reduce* social comparison should *reduce* unhappiness under income inequality.

Income Inequality and Material Consumption

Income inequality fuels social comparison specifically related to material resources and wealth (Walasek and Brown 2019), henceforth called *material comparisons*. High inequality directs people's attention to positional, status-signaling goods because these and other material resources are visible cues people can rely on to identify each other's relative standing in an income hierarchy (Walasek and Brown 2015; Walasek, Bhatia, and Brown 2018). High inequality also drives conspicuous consumption as people seek to send favorable signals about their own relative standing (Walasek, Bhatia, and Brown 2018). This is most noticeable when people try to "keep up with the Joneses" – i.e., inequality has the greatest effect on conspicuous consumption when people try to minimize the gap between themselves and the wealthy (Christen and Morgan 2005; Jaikumar and Sarin 2015; Ordabayeva and Chandon 2010).

Reducing material comparisons is difficult because material resources and wealth lend themselves to social comparison. For example, people who recollect material (vs. experiential) purchases subsequently show greater social comparison motives (Howell and Hill 2009). Carter and Gilovich (2010) posit that a key reason why material goods elicit social comparison is that their features are easy to align and compare. Relatedly, Kopytoff (1986) posits that the value of a material good, as a commodity, is quantifiable and comparable to that of other material goods

because it is based on its economic value (i.e., price). Research comparing material to experiential consumption further suggests that material goods are socially compared because they are relatively less unique (Bastos and Brucks 2017; Rosenzweig and Gilovich 2012).

In sum, the reason consumers fail to derive happiness from material consumption often is rooted in material comparisons. Income inequality exacerbates these material comparisons and thereby exacerbates feelings of relative deprivation. Paradoxical to the idea that rising income inequality has increased feelings of relative deprivation, an average consumer today owns more material goods than ever in human history (MacVean 2014). This simple fact implies, firstly, that feeling relatively deprived under income inequality is not due to objective resource deprivation, and secondly, as a corollary, that possessing an objectively high number of material goods does not reduce feelings of relative deprivation. Consequently, consumers may require a different approach to derive happiness from material consumption, one that reduces social comparison. As described next, *favorite* possessions may play a unique role in mitigating social comparison.

The Value of Favorite Possessions

Favorite possessions are linked to personal memories, histories, and meanings (Kleine, Kleine and Allen 1995; Wallendorf and Arnould 1988). Qualitative research shows that these objects are held dear independent of their exchange value (Holbrook 1994; Price, Arnould and Curasi 2000); they are "storehouses for personal meanings" (Wallendorf and Arnould 1988, p.531) and their "idiosyncratic meanings are central to their worth" (Price, Arnould and Curasi 2000, p.180). A possession becomes a favorite for various reasons, including social-relational significance, identity expression, or aesthetic appeal, among others (Kleine, Kleine and Allen 1995; Mehta and Belk 1991; Richins 1994). The particular reason may vary by age, gender, and culture but is always individual-specific (Wallendorf and Arnould 1988).

A product imbued with personal history and meaning is de-commoditized, or singularized, making its value "priceless," or uniquely valued and difficult to compare (Epp and Price 2009; Kopytoff 1986). For example, while the price of one house can be compared to that of another house, a home has value that is unique to the family that inhabits it and it "cannot be compared to others on account of its specificity" (Ilmonen 2011, p.197). Thus, it is impossible to make a valid comparison between the value an owner places on a favorite possession and the value they would place on another person's possession, nor is it possible to compare the owner's valuation of a favorite possession with that of a non-owner. Two values are said to be incommensurable when they "cannot be reduced to a common measure" (Hsieh 2020). Favorite possessions thus can be described as possessing incommensurable value.

Conceptual Model and Hypotheses

Our assertion that favorite possessions hold incommensurable value implies that favorite possessions do not lend themselves to social comparison. As this conceptual point has yet to be made by prior research, we tested it in a pilot survey (see Web Appendix A-1). Consistent with our theory, respondents reported that they were *less likely* to socially compare their favorite possession than to socially compare all of their possessions or their most expensive possession. Moreover, social comparison was reportedly *more difficult* for favorite possessions than for all of one's possessions or one's most expensive possession. As previously mentioned, because material goods tend to be socially compared, prompting consumers to attend to (by recollecting) their material purchases increases social comparisons (Howell and Hill 2009). Following the same logic, because favorite possessions tend *not* to be socially compared, consumers who attend to their favorite possessions should make fewer material comparisons.

If this view is correct, then attending to favorite possessions should particularly benefit

consumers who perceive high income inequality. Recall that consumers tend to engage in material comparisons as inequality increases and tend to feel relatively deprived and unhappy as a result (e.g., Podder 1996). If attending to (e.g., by recollecting and writing about, or posting online about) favorite possessions reduces material comparisons, then doing so should attenuate the negative effect of income inequality on material comparisons. This should, in turn, reduce feelings of relative deprivation and protect SWB. Consequently, attention to favorite possessions should mitigate the negative effect of perceived income inequality on SWB. Formally:

H1: Perceived income inequality reduces SWB, but this effect is mitigated when consumers are prompted to attend to their favorite possessions.

H2: Relative deprivation mediates the interactive effect of perceived income inequality and attention to possessions on SWB.

H3: Material comparisons mediate the interactive effect of perceived income inequality and attention to possessions on relative deprivation and, in turn, SWB.

Figure 1 depicts our complete conceptual model.

[Insert Figure 1 about here]

OVERVIEW OF STUDIES

We test these hypotheses in five studies with experimental data from nine countries and secondary social media data from 138 countries. To experimentally manipulate "attention to possessions" (in Studies 1-4), we followed research on consumption and happiness (Carter and Gilovich 2010; Howell and Hill 2009), and research on SWB interventions (e.g., gratitude listing; O'Leary and Dockray 2015), by adopting a writing task. Our experimental condition is

attention to a favorite possession (i.e., recall and describe one's favorite possession). Our comparison conditions include a baseline control (i.e., participants do not recall or describe a material possession in Studies 1 and 3), and an all possessions condition (i.e., recall all of one's material possessions in Studies 2 and 4). With the latter comparison condition, we can test whether it is favorite possessions specifically, rather than the multitude of things consumers own, that mitigate the negative effect of perceived income inequality on SWB.

Study 1 shows that attention to a favorite possession (vs. control) mitigates the negative effect of perceived income inequality on SWB, supporting H1. Study 2 further shows that attention to a favorite possession, but not attention to all of one's possessions, also mitigates this effect (H1), and relative deprivation mediates this effect (H2). Study 3 tests the full conceptual model and shows that material comparisons serially mediate the interactive effect of attention to possessions and perceived inequality on relative deprivation and SWB (H3). Study 4 includes respondents from eight countries. Controlling for actual country-level income inequality and its interaction with attention to possessions, perceived income inequality again reduces SWB and attending to a favorite possession mitigates this negative effect (H1). Further, the effects of attending to a favorite possession are parallel under perceived and actual (i.e., country-level) inequality. Finally, analyzing over 31,000 Instagram posts, Study 5 finds that posts convey less happiness as actual income inequality increases, but this negative relationship is weaker among posts that use favorite-possession-related hashtags. Web Appendix B reports stimuli and measures, and Table 1 a summary of findings, across all our studies.

[Insert Table 1 about here]

Studies 1 and 3 were preregistered (links available in Web Appendix C). In all analyses in the experiments, we excluded participants who failed attention checks (e.g., *This is an attention*

check. Please click on the option labeled "somewhat agree"). Additional exclusions are specified where applicable. We used individuals' income and materialism as covariates in all studies except the multi-country studies (i.e., Studies 4-5)[2], and report the effects of the covariates along with all other supplementary results in Web Appendix C.

STUDY 1: INCOME INEQUALITY AND FAVORITE POSSESSIONS

Study 1 was an initial test of our prediction that attention to favorite possessions can offset the negative effect of perceived inequality on SWB (H1). We expected an interaction of perceived inequality and attention to possessions, such that increases in perceived inequality should reduce SWB at baseline (per prior research); however, when consumers are prompted to recall a favorite possession, increases in perceived income inequality should not reduce SWB. We adapted a manipulation of perceived income inequality from prior literature (Jetten, Mols and Postmes 2015; Sanchez-Rodriguez et al. 2019a, b). This paradigm holds constant individuals' income levels while manipulating societal income inequality, thereby disentangling the effects of perceived income inequality and income.

Method

In exchange for payment, 600 Americans from Amazon's Mechanical Turk ("MTurkers") participated in a 2 (perceived inequality: high vs. low) by 2 (attention to possessions: favorite vs. baseline control) between-subjects study. Participants imagined themselves living in a society called Bimboola, which has three income groups–-richest, middle, and poorest. All participants were assigned to the middle group, which earns 40,000 BD/year, and thus their income level and

[2] In Study 4, income classes were measured on different scales across countries and individual differences in materialism were not measured. Study 5 used secondary data from Instagram posts that did not include individuals' income or materialism.

relative income rank were held constant across conditions. What varied between conditions was the structure of income distribution. In the high inequality condition, the richest versus poorest earned 77,000 versus 3,000 BD/year, respectively; but in the low inequality condition, the richest versus poorest earned 50,000 versus 30,000 BD/year, respectively. As citizens of Bimboola, participants were asked to choose a house, mode of transport, and holiday destination. For each choice, participants viewed the options available to all income groups but could choose only among options deemed affordable to their group. These middle-income options were the same across inequality conditions, but the difference between the options available to the rich and poor was high in the high inequality condition (e.g., luxurious mansions vs. run-down trailers) and low in the low inequality condition (e.g., large vs. small houses; Web Appendix B).

To manipulate attention to possessions, we included a writing task before participants made their choices. Those in the favorite possession condition learned that they would bring a favorite possession with them to Bimboola and were asked to describe the possession they would bring. Those in the baseline control condition skipped to the next task (i.e., choosing a house).

After choosing a house, transport, and holiday, participants reported SWB as a Bimboolean (e.g., *I am satisfied with my life;* Diener et al. 1985; $\alpha = .93$) and self-esteem (as a possible alternative explanation; Heatherton and Polivy 1991; $\alpha = .93$). They also responded to a comprehension check (identifying their Bimboolean income group), a manipulation check (indicating the level of inequality in Bimboola, $\alpha = .92$, Jetten, Mols and Postmes 2015), and measures of demographics (e.g., age, gender, income), an attention check, and materialism (Richins 2004; $\alpha = .91$). Excluding participants who failed the attention check (N=16) and the comprehension check (N=8) yielded a final $N = 576$ (60.8% female; $M_{age} = 39.5$, $SD_{age} = 12.50$).

Results

Manipulation check. The manipulation of perceived income inequality was successful (M_{high} = 6.38, SD_{high} = .95; M_{low} = 2.75, SD_{low} = 1.32; $F(1, 572) = 1417.36$, $p < .001$, $\eta_p^2 = .71$).

SWB. An ANCOVA on SWB, with perceived inequality (high = 1, low = -1) and attention to possessions (favorite = 1, control = -1) as factors, and income and materialism as covariates, yielded an interaction ($F(1, 570) = 10.58$, $p = .001$, $\eta_p^2 = .02$), and main effects of perceived inequality ($F(1, 570) = 9.17$, $p = .003$, $\eta_p^2 = .02$) and attention to possessions ($F(1, 570) = 2.88$, $p = .09$, $\eta_p^2 = .01$). Planned contrasts revealed that, at baseline control, the high (vs. low) inequality condition reported lower SWB (M_{high} = 4.47 vs. M_{low} = 5.16; $F(1, 570) = 20.23$, $p < .001$, $\eta_p^2 = .03$). However, this negative effect was eliminated in the favorite possession condition (M_{high} = 5.02 vs. M_{low} = 4.99; $F(1, 570) = .02$, $p = .88$, $\eta_p^2 < .001$), supporting H2. These results held after controlling for self-esteem, ruling it out as an alternative explanation (Web Appendix C).

Content analysis. To test whether perceived inequality affected the type of value ascribed to the possession participants recalled, and to gain insight into the reasons why participants valued their favorite possessions, two research assistants blind to our hypotheses coded the writing task responses following a coding scheme modeled after Richins' (1994) framework. The framework categorizes the value of material possessions as utilitarian, enjoyment, interpersonal, self-identity, achievement, financial, appearance, and status (not mutually exclusive). We included two additional categories – brands (i.e., mentioning the possession's brand name) and social comparison (i.e., mentioning how the possession compares to other people's possessions) – to rule out the possibility that the inequality manipulation led participants to recall a possession as a favorite either because of the brand or because the possession tends to be socially compared.

The inequality manipulation did not affect the value ascribed to a favorite possession (e.g., compared to low inequality, high inequality did not lead participants to recall a possession

because it signals status or is financially valuable). In terms of the reasons why favorite possession were valued, participants primarily cited interpersonal (53.2%), utilitarian (42.2%), and enjoyment (34%) value. Relatively few mentioned financial (5.7%), appearance (4.3%), status (1.8%), or brand (7.8%) value. None explicitly compared their favorite possession with others' possessions, suggesting that the inequality manipulation did not lead participants to recall a possession because they perceived it to be relatively better than others' possessions. The detailed coding scheme and results are reported in Web Appendix D[3].

Discussion

Supporting H1, Study 1 showed that while perceived income inequality reduced SWB in the baseline control, this negative effect of perceived income inequality on SWB was offset when consumers were prompted to think about their favorite possessions. As such, when consumers perceive high income inequality in the society, drawing attention to a favorite possession protects their SWB. Moreover, the Bimboola paradigm holds constant participants' income level (i.e., 40,000 BD/year) and relative income position (i.e., middle income group). Thus, this manipulation provides further support that our effects are indeed driven by perceptions of income inequality, rather than one's actual income or relative income position. This study also ruled out self-esteem as an alternative mechanism.

Acknowledging the hypothetical nature of our perceived income inequality manipulation, we replicated this study using a different manipulation, where participants in the inequality [control] condition viewed a short video about research on income inequality in the U.S. [research on brain science]. Results of this replication study are reported in Web Appendix E.

Furthermore, a follow-up study ruled out the possibility that the observed effect was driven

[3] We conducted content analyses in all studies where perceived inequality was manipulated. Results were similar across studies. Please see Web Appendices D (for Studies 1 and 3) and E (for the Replication Study).

by drawing attention to the general notion of "favorite". A second follow-up study showed that, consistent with the content analysis, participants in the two perceived inequality conditions did not differ in their own ratings of the incommensurability, objective quality, or expensiveness of their favorite possessions. These studies are reported in Web Appendix A-2, 3. In the following studies, we test the underlying mechanisms – relative deprivation and material comparisons.

STUDY 2: THE ROLE OF RELATIVE DEPRIVATION

The key objective of Study 2 was to test the role of relative deprivation. Specifically, we tested the hypothesis (H2) that attention to favorite possessions mitigates the negative effect of perceived income inequality on SWB because it mitigates the effect of perceived income inequality on relative deprivation. In addition to the favorite possession and baseline control conditions (as in Study 1), we included a third condition – an "all possessions" condition – to test whether drawing consumers' attention to their material possessions in general (which presumably include their favorite possession) also can mitigate the negative effect of perceived inequality on SWB (e.g., by making salient that material resources are available). We theorize, however, that attending to favorite possessions, not possessions in general, should reduce the material comparisons that elicit feelings of relative deprivation and hence mitigate the negative effect of perceived inequality. We thus predicted that, compared to the control condition, drawing consumers' attention to their favorite possessions, but not to all their possessions, buffers SWB against income inequality (H1) by reducing feelings of relative deprivation (H2).

Pilot Study

We tested the premise that (1) favorite possessions tend not to be socially compared, and

(2) attending to one's favorite possession (but not one's material possessions in general) reduces material comparisons. In a pre-registered study (Web Appendix A-4), Prolific workers (N=185) estimated the likelihood that people, in general, socially compare favorite (vs. general) material possessions. Then they recalled their own favorite (vs. general) possessions and reported the likelihood that they, personally, socially compare such possessions. Finally, they reported their material comparison tendencies. Results showed that, both for people in general and for them personally, social comparisons were lower for favorite (vs. general) possessions (people in general: Ms = 4.63 vs. 5.82; $F(1, 181) = 33.64$, $p < .001$, $\eta_p^2 = .16$; participants personally: Ms = 3.52 vs. 4.56; $F(1, 181) = 18.02$, $p < .001$, $\eta_p^2 = .09$). Results also indicated that attending to favorite (vs. general) possessions indeed reduced material comparison tendencies (Ms = 2.69 vs. 3.09; $F(1, 181) = 6.59$, $p = .01$, $\eta_p^2 = .04$). These results build on evidence that material possessions are readily compared (Carter and Gilovich 2010) and increase social comparison (Howell and Hill 2009). Offering nuance to those findings, favorites appear to differ from other material possessions in that they are less comparable and attending to them reduces social comparison. On this basis, we proceeded to test whether attention to one's favorite possession, but not to all one's possessions in general, can buffer SWB against perceived income inequality.

Method

In exchange for monetary payment, 612 participants (American MTurkers) completed a 3 (attention to possessions: favorite, all, control) by perceived inequality (measured) between-subjects study. All participants read a short paragraph about income inequality and the Gini Index, and reported their perceptions of income inequality in their society on a perceived Gini scale (anchored by 20 and 65 as endpoints; see Web Appendix B[4]). Next, participants in the

[4] We simply used the Gini Index as our measure, explaining to participants that "the higher the score, the more unequal the income distribution".

favorite [all] possessions condition recalled a favorite possession [all the possessions they own] and described what came to mind. Those in the control condition skipped this recall task. All participants then reported SWB (α = .91) and completed a measure of personal relative deprivation (Callan et al. 2008; α = .69). Finally, they reported how difficult it was to complete the writing task (which did not differ between conditions: $M_{favorite}$ = 2.33, $SD_{favorite}$ = .10, vs. M_{all} = 2.49, SD_{all} = .11, $F(1, 371) = 1.14$, p = .29, η_p^2 = .003; see details in Web Appendix F), materialism (α = .89), demographics, and an attention check. Excluding those who failed the attention check (n = 41) left N = 571 (53.1% female; M_{age} = 38.77, SD_{age} = 12.37) for analyses.

Results

SWB. Perceived inequality did not differ across possession conditions ($F(2, 568) = .87$, p = .42, η_p^2 = .003; all contrasts $p > .10$). Using the baseline control as the benchmark, we regressed SWB on favorite possession (yes = 1, otherwise = 0), all possessions (yes = 1, otherwise = 0), perceived inequality (standardized), inequality X favorite, and inequality X all, with income and materialism as covariates (adjusted R^2 = .14). As expected, the key inequality X favorite possession interaction was significant (β = .27, SE = .13, $t(563) = 2.00$, p = .046, η_p^2 = .02). The inequality X all possessions interaction was non-significant (β = .08, SE = .13, $t(563)$ = .64, p = .52, η_p^2 = .007). There were main effects of favorite possession (β = .44, SE = .13, $t(563) = 3.36$, p = .001, η_p^2 = .04), all possessions (β = .29, SE = .13, $t(563) = 2.16$, p = .031, η_p^2 = .02), and perceived inequality (β = -.32, SE = .09, $t(563) = -3.64$, $p < .001$, η_p^2 = .08; Figure 2).

Slope analyses showed that increases in perceived inequality led to reductions in SWB in the control (β = -.32, SE = .09, $t(563) = -3.64$, $p < .001$) and all possessions conditions (β = -.24, SE = .10, $t(563) = -2.51$, p = .013). This effect dissipated in the favorite possession condition (β = -.06, SE = .10, $t(563) = -.57$, p = .57). A floodlight analysis found that the favorite possession

condition reported significantly greater SWB than control when perceived inequality was above 43.4 (on the scale ranging from 20 to 65; i.e., -.55 *SD*; β = .30, *SE* = .15, $t(563) = 2.00$, $p < .05$), and the all possessions condition reported significantly greater SWB than control when perceived inequality was above 46.6 (i.e., -.21 *SD*; β = .27, *SE* = .14, $t(563) = 1.98$). A second floodlight analysis, comparing the favorite and all possessions conditions, found that the favorite condition reported marginally greater SWB than all possessions when perceived inequality was above 54 (i.e., +.59 *SD;* β = .26, *SE* = .16, $t(563) = 1.65$, $p < .10$). Collectively, these results indicate the beneficial effect of attending to a favorite possession on SWB when faced with high inequality.

[Insert Figure 2 about here]

Relative deprivation. Factor analysis indicated that the relative deprivation scale items loaded onto two factors: (1) relative deprivation ("*When I think about what I have compared to others, I feel deprived"*; "*I feel resentful when I see how prosperous other people seem to be*"; α=.78); and (2) relative privilege ("*When I compare what I have with others, I realize that I am quite well off"; "I feel privileged compared to other people like me*"; α=.80). We theorized that attention to a favorite possession should minimize feelings of relative deprivation (as opposed to increasing feelings of relative privilege). We thus focused on the deprivation sub-scale in our analyses. Additional analyses found no effect on the privilege subscale (see Web Appendix G).

We regressed relative deprivation on the same set of predictors as on SWB (adjusted R^2 = .35), and observed the key perceived inequality X favorite possession interaction (β = -.31, *SE* = .13, $t(563) = -2.37$, p = .018, η_p^2 = .03), but no perceived inequality X all possessions interaction (β = -.12, *SE* = .13, $t(563) = -.96$, p = .34, η_p^2 = .009). We also observed main effects of favorite possession (β = -.34, *SE* = .13, $t(563) = -2.60$, p = .01, η_p^2 = .02), all possessions (β = -.24, *SE* = .13, $t(563) = -1.84$, p = .067, η_p^2 = .01), and perceived inequality (β = .25, *SE* = .09,

$t(563) = 2.87$, $p = .004$, $\eta_p^2 = .04$; Figure 3)[5].

As theorized, slope analyses found that increased perceived inequality was associated with greater relative deprivation in the baseline control ($\beta = .25$, $SE = .09$, $t(563) = 2.87$, $p = .004$) but this effect was eliminated in the favorite possession condition ($\beta = -.06$, $SE = .10$, $t(564) = -.62$, $p = .54$). In the all possessions condition, the slope was directionally positive but non-significant ($\beta = .13$, $SE = .09$, $t(563) = 1.36$, $p = .18$). Moreover, a floodlight analysis found that the favorite possessions condition felt significantly less deprived than control when perceived inequality was above 46.2 (i.e., -.25 *SD*; $\beta = -.26$, $SE = .13$, $t(563) = -1.96$), whereas the all possessions condition felt less deprived than control when perceived inequality was above 49.8 (i.e., .14 *SD*; $\beta = -.26$, $SE = .13$, $t(563) = -1.96$).

[Insert Figure 3 about here]

Moderated mediation. We then conducted a moderated mediation analysis (PROCESS Model 8) with perceived inequality as IV, SWB as DV, relative deprivation as mediator, attention to possessions as a multi-categorical moderator (where baseline control was the benchmark condition), and income and materialism as covariates. Results showed that the effect of inequality on SWB was mediated by relative deprivation, moderated by favorite possessions (bootstrapped sample = 5000, 95% CI = [.009, .134]). As expected, no moderated mediation was found when all possessions was the moderator (95% CI = [-.036, .093]; Figure 4).[6]

[Insert Figure 4 about here]

Discussion

Study 2 found that perceived income inequality reduced SWB in both the baseline control

[5] An auxiliary analysis using data from the control condition (i.e., without recalling any possessions; $N = 198$) confirmed that perceived inequality increased relative deprivation regardless of income (perceived inequality X income: $\beta = .03$, $SE = .11$, $t(194) = .30$, $p = .77$).

[6] For expositional ease, we do not depict the covariates in Figure 4, but they are included in the model.

and the all possessions conditions, but this negative effect was mitigated in the favorite possession condition. These findings supported H1, and replicated and extended Study 1. Supporting H2, relative deprivation mediated the interactive effect of perceived inequality and attention to possessions on SWB. Specifically, the negative effect of perceived income inequality on relative deprivation was reduced among consumers who attended to a favorite possession, which, in turn, protected their SWB when income inequality was perceived high.

Unlike attention to one's favorite possession, attention to all of one's possessions did not significantly offset the negative effect of perceived inequality on SWB. Although "all possessions" presumably includes one's favorite, SWB in the all possessions condition fell in between the favorite and baseline conditions when inequality was perceived high. Essentially, under high inequality, drawing consumers' attention to all their material possessions can have a beneficial effect over the baseline condition, and drawing consumers' attention to their favorite possessions can have a beneficial effect over attending to all possessions. These results imply that attention to material resources, in general, may not effectively protect SWB under income inequality (else the all possessions condition should have also moderated the effect of perceived inequality on SWB).

We found no difference between the favorite and all possessions conditions on either time spent completing the writing task or its perceived difficulty. These results speak against the possibility that differences in engagement or cognitive load drive the observed results. However, while qualified by interactions, we also observed a main effect of favorite possessions on SWB. We conducted a post-test to address the possibility that the observed results are driven by a boost in positive affect in the favorite possession condition (Web Appendix H). Participants recalled and described either a favorite possession or all their possessions, and then reported positive and

negative affect. We found no significant main effect of attention to possessions on either positive or negative affect, indicating that simply recalling a favorite may not boost emotions. Rather, it is the interactive effect of attention to possessions and inequality that influences wellbeing.

STUDY 3: TESTING THE FULL MODEL

This study tested the full conceptual model, manipulating perceived inequality and attention to possessions, and measuring material comparisons, relative deprivation, and SWB.

Method

In exchange for monetary payment, 997 Americans recruited from Prolific Academic participated in a 2 (inequality cue: inequality, neutral) by 2 (attention to possessions: favorite, baseline control) between-subjects study. We manipulated perceived income inequality using a video cue (same as in the replication study of Study 1). Participants in the inequality (vs. neutral) condition watched a video about research on income inequality in the U.S. (vs. on brain science; adapted from Kurt and Gino 2019). A pretest revealed that the inequality (vs. neutral) video increased perceptions of income inequality in one's society, but did not affect distinct but related constructs, such as perceptions of social mobility or economic optimism. The videos were also similar in enjoyability and in length (Web Appendix H).

Following the video, participants in the favorite possession condition recalled and described their favorite possessions and then completed the dependent measures; whereas those in the baseline control condition completed the dependent measures *before* writing about their favorite possessions. The dependent measures included material comparisons (e.g., *How often do you find yourself comparing your material wealth with that of other people in the society?*; α

= .85), relative deprivation (Callan et al. 2008, α = .80; as in Study 2, we focused on the relative deprivation, but not relative privilege, subscale in the analysis) and SWB (Diener et al. 1985, α = .93). We also measured demographics (e.g., age, gender, income), an attention check, and materialism (Richins 2004). Excluding those who failed the attention check (n = 12) left N = 985 (49.6% female; M_{age} = 39.94, SD_{age} = 14.13) for analyses.

Results

Manipulation check. The perceived inequality manipulation was successful ($M_{\text{inequality}}$ = 6.05, $SD_{\text{inequality}}$ = 1.69; M_{neutral} = 5.58, SD_{neutral} = 1.62; $F(1, 983) = 19.64$, $p < .001$, $\eta_p^2 = .02$).

Full model. Following Zhao, Lynch and Chen (2010), we tested the full conceptual model in a moderated serial mediation analysis (PROCESS Model 83), with inequality cue as the IV (inequality cue = 1, neutral cue = -1), attention to possessions as the moderator (favorite = 1, control = -1), material comparisons as first mediator, relative deprivation as second mediator, and SWB as the DV, controlling for income and materialism. The full model was marginally significant (bootstrapped sample = 5000, Index of Moderated Serial Mediation: 90% CI = [.001, .055]). Attention to possessions marginally moderated the effect of perceived inequality on material comparisons ($\beta_{interaction}$ = -.07, SE = .04, $t(979) = -1.71$, p = .088, η_p^2 = .003) – perceived inequality had a pronounced effect on material comparisons in the baseline control condition (β = .27, SE = .06, $t(979) = 4.64$, $p < .001$, η_p^2 = .02), but an attenuated effect in the favorite possession condition (β = .13, SE = .06, $t(979) = 2.18$, p = .03, η_p^2 = .005). Material comparisons, in turn, increased relative deprivation (β = .48, SE = .03, $t(980) = 14.85$, $p < .001$, η_p^2 = .18), which, in turn, reduced SWB (β = -.41, SE = .03, $t(979) = -12.33$, $p < .001$, η_p^2 = .13). As such, perceived inequality indirectly reduced SWB through material comparisons and relative deprivation in the control condition (β = -.05, SE = .01, 90% CI = [-.074, -.032]), but this

negative indirect effect was attenuated in the favorite possession condition (β = -.02, *SE* = .01, 90% CI = [-.044, -.006]). Detailed results are reported in Table 2 and Web Appendix C.

[Insert Table 2 about here]

Discussion

Study 3 tested our full model and found that perceived inequality increased material comparisons in the baseline control condition, but the effect attenuated when consumers attended to their favorite possessions. Supporting H3, social comparisons mediated the indirect effect of perceived inequality X attention to possessions on relative deprivation, and SWB.

We note that the perceived inequality X attention to possessions interaction on social comparisons was marginally significant. One possible reason might be the strength of the inequality manipulation – the effect size of the manipulation check (η_p^2 = .02) was weaker here than in the Replication Study of Study 1 (which used the same manipulation, η_p^2 = .09). By design, the neutral cue did not make participants perceive income inequality to be low (as did the low inequality condition in the Bimboola paradigm in Study 1), but rather, it only did not make income inequality salient. Indeed, 40% of participants (*N*=200) in the neutral condition rated income inequality to be 7 = *very high* in the U.S., making it a very conservative comparison.

STUDY 4: A MULTI-COUNTRY EXAMINATION

Collectively, the above studies found that perceived inequality reduced SWB, but this negative effect was mitigated by drawing consumers' attention to their favorite possessions. Studies 2 and 3 demonstrated the underlying process for this effect. Building on these findings, Study 4 had three objectives. First, we tested whether the observed perceived inequality X

favorite possessions interaction generalized to a multi-national sample drawn from eight countries with macro-level differences on several dimensions. Second, because the sample spanned eight countries, we had an opportunity to assess the possible effect of actual income inequality. While our theorizing pertains to perceived inequality, in this study we tested whether perceived inequality and its interaction with attention to possessions affect SWB even when controlling for actual country-level inequality. Third, and relatedly, because country-level income inequality can affect SWB (Hagerty 2000; Pickett and Wilkinson 2010), we tested the possibility that attention to a favorite possession may moderate the effect of actual country-level income inequality on SWB. These results would speak to the robustness and generalizability of the perceived inequality X attention to possessions interaction effect (H1).

Method

We collected data from eight countries (China, India, Pakistan, U.K., Spain, Russia, Chile, and Mexico) that vary in country-level actual income inequality (measured by their Gini Index), region, population, language, and level of economic development. Participants (N = 1,610) were recruited from Qualtrics Panels and were screened to be between ages 18 and 70. They were asked to complete a survey in exchange for monetary payment (a professional team translated questions into each country's main language). The study adopted a 2 (attention to possessions: favorite, all) by perceived inequality (measured at individual level) design.

Participants in the favorite [all] possession condition recalled and described their favorite clothing item [all the clothing items] they purchased in the past year. We limited the writing task to clothing purchased in the past year to make the task feasible for the all possessions condition. Also, by holding constant product category and ownership duration we minimize country-level differences in the types of possessions recalled, a factor potentially confounded with the country-

level variable, actual inequality. After the writing task, participants reported SWB (α = .90), demographics, attention checks, the number of clothing items they purchased in the past year, *perceived* income inequality ("*Income inequality exists in my country"*, 1 = *strongly disagree*, 7 = *strongly agree*), and a few unrelated items. We measured perceived inequality after SWB to minimize any demand effect on the dependent variable. We excluded those who failed an attention check and those who purchased no clothing in the past year, leaving N = 1,370 across eight countries for analyses (46.0% female; M_{age} = 43.27, SD_{age} = 13.57; see Web Appendix C for the country-wise breakdown). We measured actual income inequality with country-level Gini Indices retrieved from the CIA World Factbook (2018)[7]. The Gini Indices of the eight countries ranged from 30.7 to 50.5 (where higher values indicate greater country-level inequality).

Results

An ANOVA revealed that perceived income inequality did not differ across conditions ($M_{favorite}$ = 5.00, $SD_{favorite}$ = 2.23; M_{all} = 5.13, SD_{all} = 2.17; $F(1, 1368) = 1.07$, p = .30, η_p^2 = .001). Thus, we regressed SWB on attention to possessions (favorite possession = 1, all possessions = -1), perceived inequality (standardized), and their interaction. To test whether attention to possessions also interacted with actual inequality, we included country-level Gini (standardized) and the Gini X attention to possessions interaction in the regression. Because attention to possessions and perceived inequality were nested within each country, we conducted a multi-level mixed effects model, with the above independent variables as level-1 variables, and a country categorical variable as a level-2 variable. This multi-level model allowed us to control for unobserved systematic differences across countries and yielded a better model fit than a

[7] The World Bank and CIA measures are highly correlated (r=.96, p < .001), and produced similar results (Web Appendix I). We used the World Bank measure in Study 5 because the CIA measure does not cover all regions in our data set.

linear regression model (*Likelihood Ratio* = 223.29, $p < .001$). As before, the analysis yielded a perceived inequality X attention to possessions interaction ($\beta = .07$, $SE = .03$, $z = 1.96$, $p = .050$, $\eta_p^2 = .003$). It also yielded an attention to possessions X Gini interaction ($\beta = .07$, $SE = .03$, $z = 2.14$, $p = .033$, $\eta_p^2 = .004$; Figure 5). Thus, attention to possessions moderated the effects of both perceived inequality and actual inequality on SWB. Qualified by these interactions, we found no main effect of attention to possessions ($\beta = .002$, $SE = .03$, $z = .07$, $p = .94$, $\eta_p^2 < .001$), perceived inequality ($\beta = -.05$, $SE = .04$, $z = -1.21$, $p = .23$, $\eta_p^2 = .001$), or country-level Gini ($\beta = .03$, $SE = .19$, $z = .17$, $p = .86$, $\eta_p^2 < .001$).

[Insert Figure 5 about here]

Replicating Study 2, slope analyses showed that increasing *perceived* inequality reduced SWB in the all possessions condition ($\beta = -.12$, $SE = .05$, $z = -2.15$, $p = .03$), but not in the favorite possession condition ($\beta = .01$, $SE = .05$, $z = .27$, $p = .79$). This indicates that attention to a favorite possession mitigated the negative effect of perceived inequality on SWB, even when controlling for country-level Gini and the attention to possessions X Gini interaction.

A second slope analysis showed no effect of country-level *actual* inequality (Gini) on SWB in either the favorite possession ($\beta = .10$, $SE = .19$, $z = .54$, $p = .59$) or all possessions condition ($\beta = -.04$, $SE = .19$, $z = -.20$, $p = .84$). However, a floodlight analysis showed that prompting consumers to recall a favorite possession (vs. all possessions) had a marginal positive effect on SWB when Gini reached 48 or above ($\beta = .08$, $SE = .05$, $z = 1.66$). Thus, attending to favorite possessions might benefit consumers who live in societies with high Gini coefficients.

Finally, as an exploratory analysis, we tested whether country-level actual inequality moderated the interaction of perceived inequality X attention to possessions on SWB. A multi-level mixed model analysis, including attention to possessions, perceived inequality, Gini, and all

interactions yielded no 3-way interaction (β = .02, SE = .03, z = .54, p = .59, η_p^2 <.001), but two qualified 2-way interactions (a significant attention to possessions X Gini interaction and a marginal attention to possessions X perceived inequality interaction; Web Appendix C).

Discussion

Attention to possessions moderated the effect of perceived income inequality on SWB (as observed in studies 1-3), even when controlling for country-level actual inequality and its interaction with attention to possessions. This result suggests that the focal perceived inequality X attention to possessions interaction is robust and generalizes to a sample drawn from populations across eight countries. Moreover, the lack of a three-way interaction indicates that this focal interaction does not depend on country-level actual inequality.

Interestingly, attention to possessions also moderated the effect of actual inequality on SWB when controlling for perceived inequality and its interaction with attention to possessions. As mentioned, both actual and perceived income inequality negatively affect SWB (Hagerty 2000; Oshio and Urakawa 2014). While these two constructs, actual and perceived inequality, ideally would align, perceptions are shaped by many personal and social factors (Du and King 2022; Hauser and Norton 2017). As a result, the two constructs often correlate only moderately to weakly (Loveless 2013; Schalembier 2019)[8]. Hence, while actual income inequality should inform perceived income inequality to some extent (Oshio and Urakawa 2014), the two have been observed to have independent effects. We revisit this issue in the General Discussion.

STUDY 5: SOCIAL MEDIA POSTS

[8] In our data set, which includes eight countries, we found no significant relationship between actual and perceived inequality when controlling for country fixed effects.

Studies 1-4 draw consumers' attention to their possessions via experimental prompts. In daily life, however, consumers attend to their possessions spontaneously and in a variety of contexts. One way to gauge what consumers attend to is to monitor their social media activity. Accordingly, by observing social media posts we can assess the relationship between consumers' attention to possessions and their happiness. In study 5, we therefore tested whether income inequality interacts with the content consumers post (i.e., posts about favorite possessions or not) to affect the happiness associated with the posts (as a proxy for SWB). While SWB often is referred to as happiness (Diener, Scollon and Lucas 2009), SWB is a multifaceted construct that includes multiple, correlated components that are both cognitive (reflecting life satisfaction) and affective (reflecting positive and negative feelings). Studies 1-4 relied on a cognitive measure of SWB (i.e., Diener et al. 1985). In Study 5, given the secondary nature of the data, we instead use linguistic text analysis tools to measure the affective component of SWB. The use of secondary data broadens the scope of contexts in which we test our theory and its ecological validity, and this correlational, observational analysis can complement the experimental results.

Method

We extracted data from all public Instagram posts available in the week of January 24-30, 2022, that satisfied the following criteria: 1) revealed identifiable country location of the post, which enabled us to retrieve the country-level Gini Index corresponding to that location; and 2) contained at least one of several hashtags (#s) from three categories: (a) favorite possessions (e.g., #favthing, #favoritething; hereafter referred to as *"#favorite-possession*"), (b) general consumption (e.g., #luxury, #swag, #expensive), or (c) non-possession "favorite" (e.g., #myfav, #favorite, #favoritepeople, #favoriteholiday). Among these, #favorite-possession constituted our target group and the other hashtags formed a comparison group. We selected hashtags based on

the results of a qualitative pilot study (see Web Appendix J). To serve as a conservative comparison, we selected hashtags for the comparison group (i.e., hashtags about consumption and favorites in general) that are distinctive from, but related to, favorite possessions. A total of 31,332 Instagram posts from 138 countries were extracted using these criteria[9].

The secondary data did not include posters' perceptions of income inequality. We used actual income inequality as a proxy: the Gini Index corresponding to the post location (World Bank 2022). The large number of countries in our data (138) produced sufficient variation in income inequality to perform analyses. To measure the happiness conveyed in each post, we used Linguistic Inquiry Word Count (LIWC; Pennebaker et al. 2015) software, which relies on the language used in a text response to compute its positive and negative emotionality. Following Sandvik, Diener and Seidlitz (2009), we relied on net positive emotions as our measure, which we calculated by subtracting negative from positive emotionality.

Results and Discussion

We tested the interactive effect of #favorite-possessions posts and income inequality on happiness. A fixed effects regression model regressed net positive emotions on #favorite-possession (yes = 1, no = -1), Gini, and their interaction, with country dummy variables as covariates to control for time-invariant country characteristics. We found a significant interaction (β = .02, SE = .01, t(31,192) = 2.27, p = .023), and qualified main effects of Gini (β = -.13, SE = .08, t(31,192) = -1.62, p = .105) and #favorite-possessions (β = -1.54, SE = .33, t(31,192) = -4.66, p < .001). Slope analyses showed a negative relationship between income inequality and happiness when posts featured the comparison hashtags (β = -.15, SE = .08, t(31,192) = -1.89, p

[9] The total sample is constrained by the number of posts made public, the number of these posts revealing identifiable country locations, and the number of countries that have a Gini estimate published by the World Bank. We do not believe that these constraints differed across groups of hashtags.

= .059), but this negative effect attenuated when posts included #favorite-possessions (β = -.11, *SE* = .08, $t(31,192) = -1.34$, $p = .18$). This interaction effect echoes the key interaction observed in Studies 1-4. A multi-level linear model entering country as the group-level variable yielded similar results, which we report in Web Appendix C along with additional auxiliary analyses.

Analyzing Instagram posts from 138 countries, the results of Study 5 converge with and complement those of Studies 1-4: higher income inequality was associated with less happiness in the posts when consumers used hashtags about consumption in general or favorites in general. Critically, however, this negative relationship attenuated when consumers used hashtags about favorite possessions. The data are observational and we had no access to unobserved variables that may affect likelihood of posting (e.g., individual materialism, income, etc.), creating a potential endogeneity issue. Thus, we refrain from drawing causal inferences here. However, it is noteworthy that the interaction observed in Study 5 aligns with the interaction of perceived inequality X attention to possessions observed in the previous studies (which were experiments that established the causal relationships posited in the conceptual model).

GENERAL DISCUSSION

Across five studies, we find that the negative effect of income inequality on SWB is mitigated if consumers attend to their favorite possessions. Study 1 shows that, while perceived income inequality reduces SWB by default, recalling a favorite possession offsets this negative effect (H1). Study 2 replicates the finding that attention to a favorite possession mitigates the negative effect of perceived income inequality. However, attention to all of one's possessions has no such effect. Study 2 further shows mediation by relative deprivation (H2). Study 3 tests

the full conceptual model and shows that attention to one's favorite possession weakens the effect of perceived income inequality on material comparisons, which, in turn, reduces relative deprivation and protects SWB (H3). Study 4 uses data from eight countries and finds that H1 holds when controlling for actual (i.e., country-level) income inequality and its interaction with attention to possessions. This attests to the robustness and generalizability of the effect across countries that vary in income inequality. Finally, analyzing Instagram posts from 138 countries, Study 5 finds that actual income inequality interacts with the hashtags consumers use in their posts to predict the happiness they express in the posts. Income inequality is associated with lower happiness when consumers use hashtags about consumption or favorites in general, but this relationship is mitigated when consumers use hashtags about favorite possessions.

Contributions to Research on Material Possessions

Our findings contribute to extant research on material possessions and, specifically, favorite possessions. Prior research finds that material possessions tend to be socially compared and focusing on material possessions increases social comparisons (Carter and Gilovich 2010; Howell and Hill 2009); we show that, in contrast, *favorite* possessions tend *not* to be socially compared and focusing on a favorite possession *reduces* social comparisons. This can, in turn, mitigate perceived inequality's effect on relative deprivation and SWB. Thus, we demonstrate that favorite possessions represent "an exception to the rule" that material possessions are readily used for social comparison. In so doing, we also contribute to a small but important set of studies that document conditions under which material acquisition can improve SWB (e.g., Goodman, Malkoc and Stephenson 2016; Lee, Hall and Wood 2018).

Second, while prior research suggests that the value of a special possession is incommensurable (e.g., Kopytoff 1986; Price, Arnould and Curasi 2000; Wallendorf and

Arnould 1988), little is known about the implications of this incommensurability. We show that the incommensurability of favorite possessions matters: by reducing social comparison, favorite possessions can safeguard wellbeing under income inequality. Third, this insight about favorite possessions is practically and broadly useful because, while reducing social comparison is hard, everyone has a favorite possession that can serve as a resource to help them do so.

Contributions to Research on Income Inequality

We also contribute to research on income inequality and material acquisition. Prior research shows that income inequality increases attention to, and acquisition of, material goods (Christen and Morgan 2005; Jaikumar and Sarin 2015; Walasek and Brown 2015; Walasek, Bhatia and Brown 2018). This increased consumption can precipitate debt without improving SWB and thus is a suboptimal way to cope with inequality. Yet, with income inequality rising globally, and public opinion that inequality is higher than ideal (Norton and Ariely 2011), identifying ways to alleviate the negative psychological impact of income inequality and protect consumer wellbeing is critical. To this end, we find that material acquisition can play a positive role in coping with income inequality. While consumption might help consumers cope with income inequality in other ways, which future research can explore, a key strength of our approach is that it relies on existing possessions, goods consumers have *already acquired*, and thus is costless to implement (both financially to the consumer and in its environmental impact).

Our research also makes empirical contributions to the income inequality literature. Prior research documents relationships between actual income inequality, actual relative deprivation, and SWB (Podder 1996; Runciman 1966; Yitzhaki 1979). It also documents relationships between actual income inequality, relative income (as a proxy for social comparison tendencies), and SWB (Cheung and Lucas 2016). While the findings in prior literature are consistent with our

theorizing, that literature is limited by its reliance on objective measures, which are necessarily correlational and thus do not lend themselves to experimental manipulations and tests of psychological process via statistical mediation. This limitation was noted by Schneider (2016), who called for research into the psychological mechanisms related to income inequality. Oishi, Kesebir and Diener (2011) answered this call by establishing how income inequality impacts interpersonal trust and perceived fairness. Here, we do so with regards to relative deprivation. Ours is the first research to offer experimental evidence that (perceived) income inequality reduces SWB via feelings of relative deprivation.

Taking together the prior research (Podder 1996; Runciman 1966; Yitzhaki 1979) and our findings (studies 2-3), actual and perceived inequality appear to both affect SWB through relative deprivation. Oshio and Urakawa (2014) posit that perceived inequality "links actual income inequality to SWB". Yet, perceived and actual inequality have often been found to correlate moderately or weakly (Loveless 2013; Schalembier 2019), possibly because factors like media attention (Hauser and Norton 2017), political ideologies, and personal experiences (Du and King 2022), may shift perceptions away from the reality. Besides relative deprivation, actual and perceived inequality have different correlates that may drive their respective effects on SWB through other mechanisms. For example, actual inequality is linked to violence, obesity, and educational outcomes in a society (Pickett and Wilkinson 2010), which all could affect SWB but play lesser roles in shaping perceptions of inequality. The different correlates may explain why actual and perceived inequality only weakly correlate with each other though both reduce SWB.

Limitations and Directions for Future Research

The limitations of our research point to several interesting directions for future research. First, we find that attention to favorite possessions reduces consumers' tendencies to engage in

material comparisons, but the exact mechanism warrants further investigation. One possibility is that this process is cognitive. Because consumers tend not to compare their favorite possessions to others' possessions, prompting them to think about a favorite possession might reduce their cognitive readiness to engage in social comparisons. Another possibility is that the process is motivational. Favorite possessions are core to people's sense of self (Kleine, Kleine and Allen 1995). Because the value of a favorite possession cannot be reduced to its price, thinking about a favorite possession might make consumers feel that the value of their "self" cannot be reduced to their material wealth. In fact, it is conceivable that the value of favorites and, hence, the value of the self, is perceived as sacred and quantifying it is morally unacceptable (McGraw and Tetlock 2005). As such, consumers would avoid comparing themselves to others in material wealth.

While the value of a favorite possession is incommensurable, it need not have unalignable product attributes (i.e., attributes that cannot be objectively compared, such as taste; Zhang and Fitzsimons 1999). Similarly, while a favorite possession is special and unique to its owner, it need not be unique, or scarce, in the market (Sharma and Alter 2012). Our content analyses found that most of the favorite possessions recalled were common products, such as clothing, jewelry, and electronic devices (Web Appendices D & F). Participants seldom recalled a favorite possession because of its uniqueness or scarcity in the market (which would be categorized as status value). In a follow-up experiment (Web Appendix A-5), we drew participants' attention to the similarities between their favorite possession's and another product's attributes. This did not cause participants to perceive their favorite as any less special, incommensurable, or unique. Thus, even when prompted to perceive a favorite possession's attributes as alignable or even identical to another product's attributes, its owner would still perceive its value as incommensurable. While this indicates that attribute alignability does not undermine the

specialness of favorites, future research should address whether alignability or product scarcity affect whether a product elevates to the status of a favorite. It may also examine whether recalling a favorite possession may reduce the importance of money or other means of quantifying the value of material possessions.

Third, we observed the effects of attention to favorite possessions both without imposing constraints on product category or time of purchase (Studies 1-3), and with constraints (participants in Study 4 recalled their favorite clothing item purchased in the past year). The replicability of the effect implies that favorite possessions can buffer SWB against income inequality regardless of the type of possession or time of acquisition. We do, however, expect boundary conditions to exist. Firstly, the effect may not hold in all product categories. For example, although many consumers have a favorite grocery product (e.g., a favorite flavor of ice cream that they associate with childhood), recalling a grocery product may not mitigate the effect of inequality because grocery products tend not to be socially compared. Further, the effect may strengthen with products owned for a longer time, as they may become increasingly meaningful.

Fourth, future research should examine individual and cultural differences that moderate the link between income inequality and SWB, in particular, factors that affect the extent to which people accept inequality and hierarchy (e.g., individuals' social dominance orientation; Pratto et al. 1994), political orientation, or a culture's power distance belief (Hofstede 2001). Perceived inequality should have less impact on SWB among those who find inequality more acceptable (i.e., high social dominance orientation individuals, or high power distance belief societies). Acceptance of inequality also affects perception of inequality – those who accept inequality tend to perceive lower levels of inequality in their society (Du and King 2022). Hence political conservatives may evidence weaker effects because they have higher acceptance of inequality

and also are more likely to make vertical social comparisons (Ordabayeva and Fernandes 2018). Also, we did not find income to reliably moderate our effect and, based on our data, we cannot draw any conclusions about people who live in extreme poverty. Future research with a wider range of incomes in the sample should further examine the role of income. Moreover, as discussed, actual income inequality has other correlates that can potentially influence SWB.

Finally, future research should examine downstream consequences of attention to favorite possessions. As mentioned, SWB is associated with various positive outcomes. Thus, by protecting SWB, the consequences of attention to favorite possessions should be mainly positive. However, concerns about social inequality can motivate behaviors that address it (e.g., donating, or supporting income redistribution; Ordabayeva and Lisjak 2022). By mitigating the effect of income inequality, attention to favorite possessions may reduce these pro-social actions.

Practical Implications

Understanding how macro trends influence consumers is a priority research area in marketing (Marketing Science Institute 2020). We show that prompting consumers to think about their favorite things can be an effective way to mitigate the negative psychological impact of perceived inequality on their SWB. Income inequality is a major social issue that needs addressing, and, in parallel, there is a need for implementable strategies that protect consumers' wellbeing. Our approach is useful across favorite possessions of different types, and in the face of both actual and perceived income inequality. While we mainly rely on a recall task to draw consumers' attention to their favorite possession, there are many ways to draw attention to favorites, some of which are readily scalable. Study 5 suggests that social media presents promising opportunities, for example, an Instagram campaign that trends posting and sharing stories of one's favorite possessions. Auxiliary analyses in Study 5 also found that higher income

inequality correlated with a lower likelihood to post #favorite-possession (Web Appendix C). Thus, consumers may not intuit the type of content that could help them cope with inequality, highlighting a need for interventions. Other consumer contexts can increase consumers' attention to their favorite possessions through, for example, consumption, sharing, and storytelling.

More broadly, our findings suggest that the key to maintaining wellbeing under income inequality may not depend on how many, or even what, material goods consumers own. Instead, wellbeing depends on whether consumers have meaningful relationships with their acquired goods. Mindful consumption that focuses not on amassing material goods, but on appreciating and fully utilizing one's possessions, may help imbue possessions with special meanings. Indeed, the growing popularity of the notion that possessions should "spark joy" (Kondo 2016) reflects a trend toward cultivating meaningful relationships with material possessions.

To conclude, our argument is not that favorite possessions can mitigate the various and serious negative impacts that income inequality has on individuals and societies (e.g., poor health, increased crime rate, increased mortality, etc.). Rather, our findings suggest one way in which consumers can cope with the psychological effect of perceived income inequality on their sense of wellbeing. Despite the great income inequality in the world, we all have a few favorite things that can make us happy. We do not all need a Mercedes Benz.

REFERENCES

Alesina, Alberto, Rafael Di Tella, and Robert MacCulloch (2004), "Inequality and Happiness: are Europeans and Americans Different?" *Journal of Public Economics*, 88 (9-10), 2009-2042.

Bastos, Wilson, and Merrie Brucks (2017), "How and Why Conversational Value Leads to Happiness for Experiential and Material Purchases," *Journal of Consumer Research*, 44 (3), 598-612.

Callan, Mitchell J., John H. Ellard, N. Will Shead, and David C. Hodgins (2008), "Gambling as a Search for Justice: Examining The Role of Personal Relative Deprivation in Gambling Urges and Gambling Behavior," *Personality and Social Psychology Bulletin*, 34 (11), 1514-1529.

Carter, Travis J. and Thomas Gilovich (2010), "The Relative Relativity of Material and Experiential Purchases," *Journal of Personality and Social Psychology*, 98 (1), 146-159.

Chambers, John R., Lawton K. Swan, and Martin Heesacker (2014), "Better off than we know: Distorted Perceptions of Incomes and Income Inequality in America," *Psychological Science*, 25 (2), 613-618.

Cheung, Felix and Richard E. Lucas (2016), "Income Inequality Is Associated with Stronger Social Comparison Effects: The Effect of Relative Income on Life Satisfaction," *Journal of Personality and Social Psychology*, 110 (2), 332-341.

Christen, Markus and Ruskin M. Morgan (2005), "Keeping Up with the Joneses: Analyzing the Effect of Income Inequality on Consumer Borrowing," *Quantitative Marketing and Economics*, 3 (2), 145-173.

Cummins, Robert A (2000) "Personal Income and Subjective Wellbeing: A Review," *Journal of Happiness Studies*, 1 (2), 133-158.

De Neve, Jan-Emmanuel, Ed Diener, Louis Tay, and Cody Xuereb (2013), "The objective benefits of subjective well-being," in Helliwell, J., Layard, R., & Sachs, J., eds. *World Happiness Report 2013*. New York: UN Sustainable Development Solutions Network.

Diener, Ed, Christie Napa Scollon, and Richard E. Lucas (2009), "The Evolving Concept of Subjective Wellbeing: The Multifaceted Nature of Happiness," *Assessing Wellbeing*, 39, 67-100.

Diener, Ed, Ed Sandvik, Larry Seidlitz, and Marissa Diener (1993), "The Relationship Between Income and Subjective Wellbeing: Relative or Absolute?" *Social Indicators Research*, 28 (3), 195-223.

Diener, Ed, Marissa Diener, and Carol Diener (1995), "Factors Predicting the Subjective Wellbeing of Nations," *Journal of Personality and Social Psychology*, 69 (5), 851-864.

Diener, Ed, Richard E. Lucas, and Shigehiro Oishi (2018), "Advances and Open Questions in the Science of Subjective Wellbeing," *Collabra: Psychology*, 4 (1), 15.

Diener, Ed., Robert A. Emmons, Randy J. Larsen, and Sharon Griffin (1985), "The Satisfaction with Life Scale," *Journal of Personality Assessment*, 49 (1), 71-75.

DiMaria, C.H., Peroni, C. and Sarracino, F. (2020), "Happiness Matters: Productivity Gains from Subjective Well-Being", *Journal of Happiness Studies*, 21(1), 139-160.

Du, Hongfei, and Ronnel B. King (2022), "What Predicts Perceived Economic Inequality? The Roles of Actual Inequality, System Justification, And Fairness Considerations," *British Journal of Social Psychology*, 61 (1), 19-36.

Epp, Amber M., and Linda L. Price (2009), "The Storied Life of Singularized Objects: Forces of Agency and Network Transformation," *Journal of Consumer Research*, 36 (5), 820-837.

Festinger, Leon (1954), "A Theory of Social Comparison Processes," *Human Relations*, 7, 117-

140.

Gilovich, Thomas, Amit Kumar, and Lily Jampol (2015), "A Wonderful Life: Experiential Consumption and The Pursuit of Happiness," *Journal of Consumer Psychology*, 25(1), 152-165.

Gimpelson, Vladimir and Daniel Treisman (2018), "Misperceiving Inequality," *Economics & Politics*, 30 (1), 27-54.

Gini, Corrado (1912), *Variabilita e Mutabilita*, Bologna.

Goodman, Joseph K., Selin A. Malkoc, and Brittney L. Stephenson (2016) "Celebrate or Commemorate? A Material Purchase Advantage When Honoring Special Life Events," *Journal of the Association for Consumer Research*, 1(4), 497-508.

Hagerty, Michael R (2000), "Social Comparisons of Income in One's Community: Evidence from National Surveys of Income and Happiness," *Journal of Personality and Social Psychology*, 78 (4), 764-771.

Hauser, Oliver P., and Michael I. Norton (2017), "(Mis) Perceptions of Inequality," *Current Opinion in Psychology*, 18, 21-25.

Heatherton, Todd F., and Janet Polivy (1991), "Development and Validation of A Scale for Measuring State Self-Esteem," *Journal of Personality and Social Psychology* 60 (6), 895-910.

Hofstede, Geert, (2001), *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations Across Nations*, Sage publications.

Holbrook, Morris B. (1994), "The Nature of Customer Value: An Axiology of Services in the Consumption Experience," in *Service Quality. New Directions in Theory and Practice*, ed. Roland Rust and Richard L. Oliver, Newbury Park, CA: Sage, 21-71.

Howell, Ryan T. and Graham Hill (2009), "The Mediators of Experiential Purchases: Determining the Impact of Psychological Needs Satisfaction and Social Comparison," *The Journal of Positive Psychology*, 4 (6), 511-522.

Hsieh, Nien-hê (2020), "Incommensurable values," Stanford Encyclopedia of Philosophy Archive (accessed August 31, 2020), https://stanford.library.sydney.edu.au/archives/fall2020/entries/value-incommensurable/.

Ilmonen, Kaj (2011), "Consumption as Use: Our Relationship to Commodities," In *A Social and Economic Theory of Consumption*, pp. 184-204. Palgrave Macmillan, London.

International Monetary Fund (2022), "Introduction to Inequality" (accessed June 1, 2020), https://www.imf.org/en/Topics/Inequality/introduction-to-inequality.

Jaikumar, Saravana and Ankur Sarin (2015), "Conspicuous Consumption and Income Inequality in an Emerging Economy: Evidence from India," *Marketing Letters*, 26 (3), 279-292.

Jetten, Jolanda, Frank Mols, and Tom Postmes (2015), "Relative Deprivation and Relative Wealth Enhances Anti-Immigrant Sentiments: The V-Curve Re-Examined," *PloS One*, 10(10): e0139156.

Kahneman, Daniel, and Angus Deaton (2010), "High Income Improves Evaluation of Life but Not Emotional Well-Being," *Proceedings of the National Academy of Sciences*, 107, (38), 16489-16493.

Kahneman, Daniel, Alan B. Krueger, David Schkade, Norbert Schwarz, and Arthur A. Stone (2004), "Toward National Well-Being Accounts," *American Economic Review*, 94(2), 429-434.

Kleine, Susan Schultz, Robert E. Kleine III, and Chris T. Allen (1995), "How Is A Possession "Me" Or "Not Me"? Characterizing Types and An Antecedent of Material Possession

Attachment," *Journal of Consumer Research*, 22, (3), 327-343.

Kondo, Mari (2016), *Spark joy: an illustrated guide to the Japanese art of tidying*. Random House.

Kopytoff, Igor (1986), "The Cultural Biography of Things: Commoditization as Process," *The Social Life of Things: Commodities in Cultural Perspective*, 68, 70-73.

Kuhn, Andreas (2019), "The Subversive Nature of Inequality: Subjective Inequality Perceptions and Attitudes to Social Inequality," *European Journal of Political Economy* 59, 331-344.

Kurt, Didem and Francesca Gino (2019), "I Deserve Better: Income Inequality and Consumer Preference for Private Labels versus National Brands", paper presented at Society for Consumer Psychology 2019 Annual Conference, Savannah, GA, U.S.A. (February 28-March 02).

Lee, Jacob C., Deborah L. Hall, and Wendy Wood (2018), "Experiential or Material Purchases? Social Class Determines Purchase Happiness," *Psychological Science*, 1-9.

Loveless, Matthew (2013), "The deterioration of democratic political culture: Consequences of the perception of inequality," *Social Justice Research*, 26 (4), 471-491.

MacVean, Mary (2014), "For Many People, Gathering Possessions Is Just The Stuff Of Life", http://articles.latimes.com/2014/mar/21/health/la-he-keeping-stuff-20140322.

Marketing Science Institute (2020), *Research Priorities: A Guide to MSI Research Programs and Procedures, 2020–2022*. Cambridge, MA: Marketing Science Institute.

McGraw, A. Peter and Philip E. Tetlock (2005), "Taboo Trade-Offs, Relational Framing, and the Acceptability of Exchanges," *Journal of Consumer Psychology*, 15 (1), 2-15.

Mehta, Raj and Russell W. Belk (1991), "Artifacts, Identity, and Transition: Favorite

Possessions of Indians and Indian Immigrants to the United States," *Journal of Consumer Research*, 17 (4), 398-411.

Minkov, M. (2009), "Predictors of Differences in Subjective Wellbeing across 97 Nations", *Cross-Cultural Research*, 43 (2), 152-179.

Norton, Michael I., and Dan Ariely (2011), "Building A Better America – One Wealth Quintile at A Time," *Perspectives on Psychological Science*, 6 (1), 9-12.

Oishi, Shigehiro, Selin Kesebir, and Ed Diener (2011), "Income Inequality and Happiness," *Psychological Science*, 22 (9), 1095-1100.

O'Leary, Karen and Samantha Dockray (2015), "The Effects of Two Novel Gratitude and Mindfulness Interventions on Wellbeing," *Journal of Alternative and Complementary Medicine*, 21 (4), 243-245.

Ordabayeva, Nailya and Pierre Chandon (2010), "Getting Ahead of the Joneses: When Equality Increases Conspicuous Consumption Among Bottom-Tier Consumers," *Journal of Consumer Research*, 38 (1), 27-41.

Ordabayeva, Nailya, and Daniel Fernandes (2018), "Better or Different? How Political Ideology Shapes Preferences for Differentiation in The Social Hierarchy," *Journal of Consumer Research,* 45 (2), 227-250.

Ordabayeva, Nailya, and Monika Lisjak (2022), "Perceiving, Coping with, and Changing Economic Inequality in the Marketplace," *Journal of Consumer Psychology*, 32 (1), 165-174.

Oshio, Takashi and Kunio Urakawa (2014), "The Association between Perceived Income Inequality and SWB: Evidence from a Social Survey in Japan," *Social Indicators Research*, 116 (3), 755-770.

Pennebaker, James W., Ryan L. Boyd, Kayla Jordan, and Kate Blackburn (2015). *The development and psychometric properties of LIWC2015*.

Pickett, Kate, and Richard Wilkinson (2010), *The spirit level: Why Equality Is Better for Everyone*. Penguin UK.

Podder, Nripesh (1996), "Relative Deprivation, Envy and Economic Inequality," *Kyklos*, 49 (3), 353-376.

Pratto, Felicia, Jim Sidanius, Lisa M. Stallworth, and Bertram F. Malle (1994), "Social Dominance Orientation: A Personality Variable Predicting Social and Political Attitudes", *Journal of Personality and Social Psychology*, 67 (4), 741.

Price, Linda L., Eric J. Arnould, and Carolyn Folkman Curasi (2000), "Older Consumers' Disposition of Special Possessions," *Journal of Consumer Research*, 27 (2), 179-201.

Richins, Marsha L. (2004), "The Material Values Scale: Measurement Properties and Development of A Short Form," *Journal of Consumer Research*, 31(1), 209-219.

Richins, Marsha L. (1994), "Valuing Things: The Public and Private Meanings of Possessions," *Journal of Consumer Research*, 21 (3), 504-521.

Rosenzweig, Emily, and Thomas Gilovich (2012), "Buyer's Remorse or Missed Opportunity? Differential Regrets for Material and Experiential Purchases," *Journal of Personality and Social Psychology*, 102 (2), 215-223.

Runciman, W. Garrison (1966), *Relative Deprivation and Social Justice*. London: RKP

Sanchez-Rodriguez, Ángel, Guillermo B. Willis, Jolanda Jetten, and Rosa M. Rodriguez-Bailón (2019), "Economic Inequality Enhances Inferences That the Normative Climate Is Individualistic and Competitive," *European Journal of Social Psychology*, 49 (6), 1114-1127.

Sánchez-Rodríguez, Ángel, Jolanda Jetten, Guillermo B. W. Sánchez, and Rosa M. Rodríguez-Bailón (2019), "High Economic Inequality Makes Us Feel Less Wealthy," *International Review of Social Psychology*, 32 (1), 1-17.

Sandvik, Ed, Ed Diener, and Larry Seidlitz (2009), "Subjective Well-Being: The Convergence and Stability of Self-Report and Non-Self-Report Measures," In *Assessing well-being*, pp. 119-138. Springer, Dordrecht.

Schalembier, Benjamin (2019), "An Evaluation of Common Explanations for The Impact of Income Inequality on Life Satisfaction," *Journal of Happiness Studies*, 20 (3), 777-794.

Schneider, Simone M (2016), "Income Inequality and Subjective Wellbeing: Trends, Challenges, and Research Directions," *Journal of Happiness Studies*, 17 (4), 1719-1739.

Sharma, Eesha, and Adam L. Alter (2012), "Financial Deprivation Prompts Consumers to Seek Scarce Goods," *Journal of Consumer Research*, 39 (3), 545-560.

Sirgy, M. Joseph (2021), "Positive Outcomes of Wellbeing," In *The Psychology of Quality of Life*, 59-78. Springer, Cham.

Sulemana, Iddisah (2016), "Are Happier People More Willing to Make Income Sacrifices to Protect the Environment?" *Social Indicators Research*, 127 (1), 447-467.

The World Factbook 2018. Washington, DC: Central Intelligence Agency, 2018 (accessed June 10, 2018) https://www.cia.gov/library/publications/the-world-factbook/rankorder/2172rank.html.

Walasek, Lukasz and Gordon D. Brown (2015), "Income Inequality and Status Seeking: Searching for Positional Goods in Unequal US States", *Psychological Science*, 26 (4), 527-533.

Walasek, Lukasz, and Gordon D. Brown (2019), "Income Inequality and Social Status: The Social Rank and Material Rank Hypotheses," In *The social psychology of inequality*, 235-248.

Springer, Cham.

Walasek, Lukasz, Sudeep Bhatia, and Gordon D. Brown (2018), "Positional Goods and the Social Rank Hypothesis: Income Inequality Affects Online Chatter About High-and Low-Status Brands on Twitter," *Journal of Consumer Psychology*, 28 (1), 138-148.

Wallendorf, Melanie and Eric J. Arnould (1988), "'My Favorite Things': A Cross-Cultural Inquiry into Object Attachment, Possessiveness, and Social Linkage," *Journal of Consumer Research*, 14 (4), 531-547.

Whillans, Ashley V., Elizabeth W. Dunn, Paul Smeets, Rene Bekkers, and Michael I. Norton (2017), "Buying Time Promotes Happiness," *Proceedings of the National Academy of Sciences*, 114 (32), 8523-8527.

Wood, Joanne V. (1989), "Theory and Research Concerning Social Comparisons of Personal Attributes," *Psychological Bulletin*, 106 (2), 231.

World Bank (2022), World Development Indicators, Gini Index (accessed February 6, 2022), https://databank.worldbank.org/reports.aspx?source=2&series=SI.POV.GINI.

Yitzhaki, Shlomo (1979), "Relative Deprivation and The Gini Coefficient," *Quarterly Journal of Economics*, 321-324.

Zhang, Shi, and Gavan J. Fitzsimons (1999), "Choice-Process Satisfaction: The Influence of Attribute Alignability and Option Limitation," *Organizational Behavior and Human Decision Processes*, 77 (3), 192-214.

Zhao, Xinshu, John G. Lynch Jr, and Qimei Chen (2010), "Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis," *Journal of Consumer Research*, 37 (2), 197-206.

TABLE 1: SUMMARY OF RESULTS

Studies	N	Attention to Possessions	SWB [b]		Relative Deprivation		Material Comparisons	
			Low Inequality/ Neutral	High Inequality	Low Inequality/ Neutral	High Inequality	Low Inequality/ Neutral	High Inequality
Study 1	137|157 [a]	Baseline Control	5.16 (.11)	4.47 (.11)				
	154|128	Favorite Possession	4.99 (.11)	5.02 (.12)				
Replication Study	95|101	Baseline Control	4.43 (.15)	3.90 (.14)				
	97|99	Favorite Possession	4.41 (.14)	4.43 (.14)				
Study 2	198	Baseline Control	-.32 (.09)		.25 (.09)			
	182	All Possessions	-.24 (.10)		.13 (.09)			
	191	Favorite Possession	-.06 (.10)		-.06 (.10)			
Study 3	236|264	Baseline Control	4.12 (.09)	3.79 (.09)	3.08 (.09)	3.68 (.09)	3.51 (.08)	4.04 (.08)
	254|231	Favorite Possession	4.21 (.09)	4.14 (.10)	3.05 (.09)	3.41 (.09)	3.40 (.08)	3.65 (.08)
Study 4	683	All Clothing Items [c]	-.12 (.05)					
	687	Favorite Clothing	.01 (.05)					
Study 5	24,719	Comparison #s [d]	-.15 (.08)					
	6,613	Favorite-possession #s	-.11 (.08)					

Notes: a. For S1, the Replication Study, and S3, where perceived inequality was manipulated, the numbers on the left (vs. right) indicate the cell sizes of the low inequality/neutral (vs. high inequality) conditions.

b. For S1, Replication Study, and S3, where perceived inequality was manipulated, the cell values indicate the means and parentheses indicate the corresponding standard errors. For S2, S4, and S5, where inequality was measured, the cell values indicate the effect coefficients of perceived income inequality, and the parentheses indicate the corresponding standard errors.

c. The effects reported for Study 4 are the effect coefficients of perceived income inequality on SWB, while controlling for actual inequality and its interaction with attention to possessions, in a multi-level linear model.

d. The effects reported for Study 5 are the effect coefficients of country-level Gini on net positive emotions associated with the social media posts in a fixed effect linear regression.

TABLE 2: SERIAL MODERATED MEDIATION (PROCESS MODEL 83) RESULTS, STUDY 3

Independent Variables	***Dependent Variables*** *Coefficient (effect size, η_p^2)*	
Moderating Effect of AttPo on Perceived Inequality	**Material Comparisons**	
Attention to possessions	-.13*** (.01)	Model significance: $F(5, 979) = 77.34$ ***; $R^2 = .28$
Inequality manipulation	.2*** (.02)	
Attention to possessions * Inequality	-.07* (.003)	
Income	.02*** (.27)	
Materialism	.99** (.006)	
Constant	.83***	
Simple effect of perceived inequality		
Control condition	.27*** (.02)	
Favorite condition	.13** (.005)	
Mediating Effect of Material Comparisons	**Relative Deprivation**	
Inequality manipulation	.15*** (.01)	Model significance: $F(4, 980) = 184.92$ ***; $R^2 = .43$
Material Comparisons	.48*** (.18)	
Income	-.08*** (.06)	
Materialism	.60*** (.09)	
Constant	.63***	
Mediating Effects of Material Comparisons and Rel. Dep.	**SWB**	
Inequality manipulation	-.04 (.001)	Model significance: $F(5, 979) = 108.71$ ***; $R^2 = .36$
Material Comparisons	.18*** (.02)	
Relative Deprivation	-.41*** (.13)	
Income	.10*** (.08)	
Materialism	-.49*** (.05)	
Constant	5.24***	
Conditional Indirect Effect of Perceived Inequality through Material Comparisons and Relative Deprivation (H3)		
Control condition	-.05 [-.074, -.032]	
Favorite condition	-.02 [-.044, -.006]	
Index of Moderated Serial Mediation Model	.03 [.001, .055]	
*p <.10; **p<.05; ***p<.01; AttPo = Attention to Possessions; Rel. Dep. = relative deprivation		

Figure 1: Conceptual Model

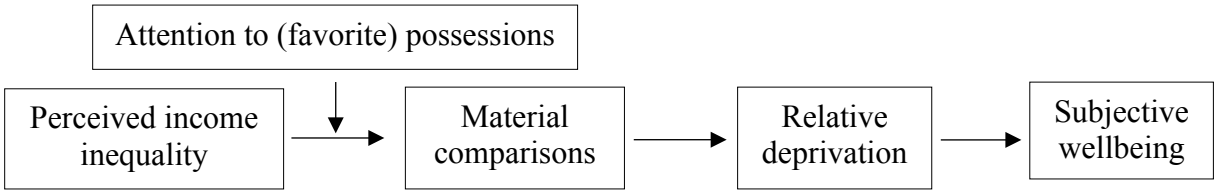


Figure 2: Attention to possessions X perceived inequality on SWB, Study 2

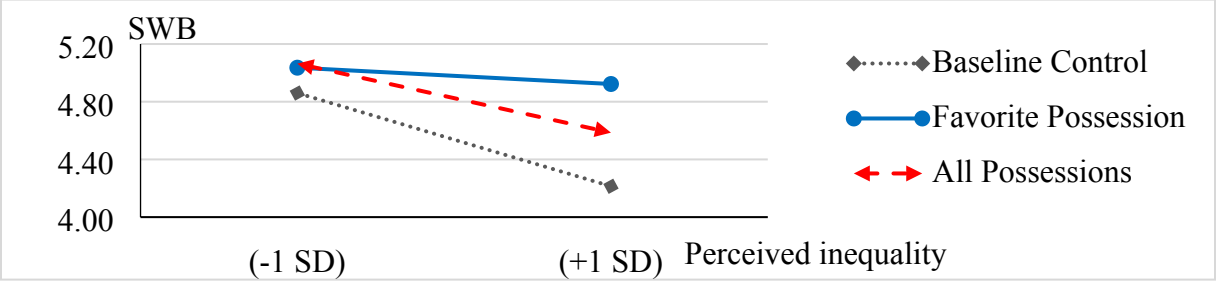


Figure 3: Attention to possessions X perceived inequality on relative deprivation, Study 2

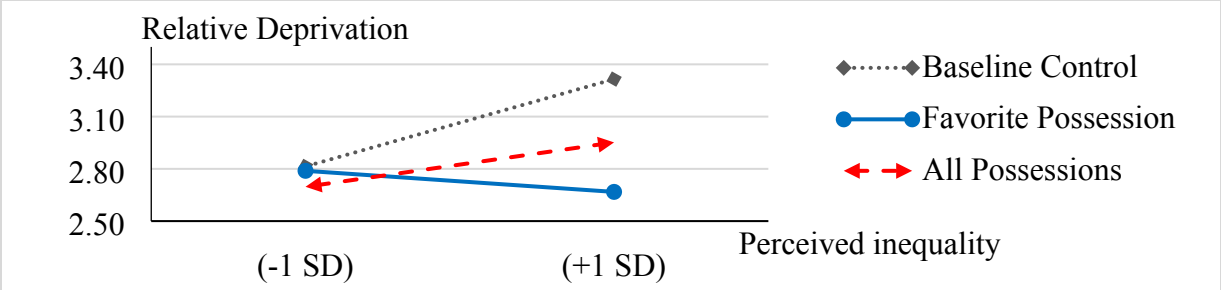


Figure 4: Moderated Mediation Analysis (PROCESS Model 8), Study 2

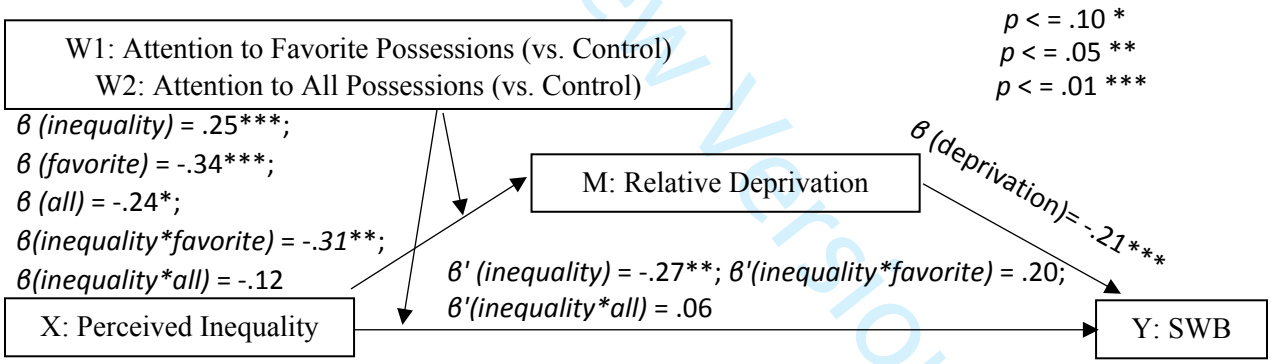
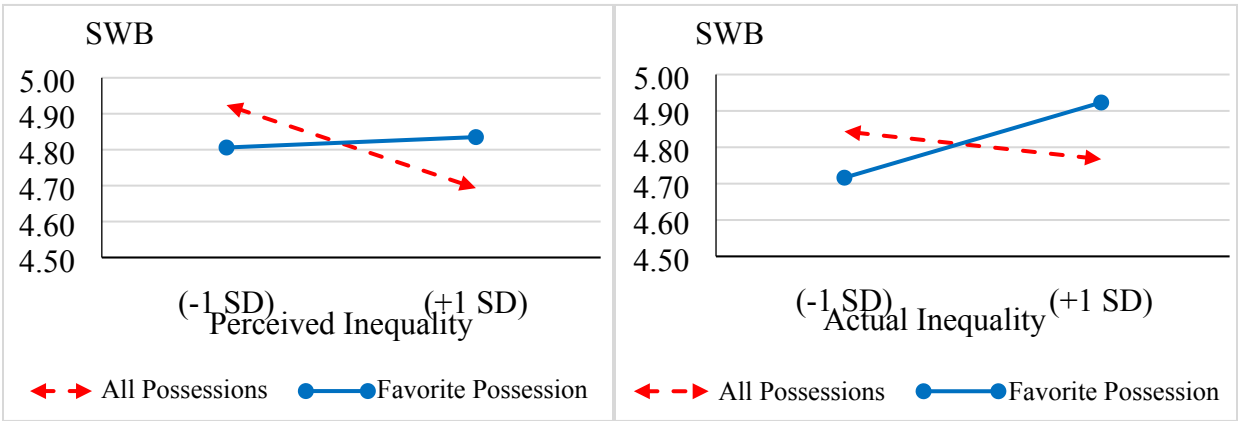


Figure 5: Attention to possessions X perceived and actual inequality, Study 4



Favorite Possessions Protect Subjective Wellbeing under Income Inequality

WEB APPENDIX

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WEB APPENDIX A: PILOT AND FOLLOW-UP STUDIES

1. Pilot survey, referenced in Conceptual Development

Building on the qualitative research on special possessions (e.g., Epp and Price 2009; Kopytoff 1986; Price, Arnould and Curasi 2000), we conducted a pilot study to test the proposition that the value of a favorite possession is incommensurable to that of others' possessions. Participants (N = 146 American MTurkers) were asked to think about a favorite possession, all their possessions, and their most expensive possession, and report how likely they were to compare each type of these possessions with someone else's possessions, and how easily it was to do so (1 = *not at all*, 7 = *very much*; within-subjects design). A repeated-measures analysis found a significant main effect (Sphericity Assumed $F(2, 290) = 5.76$, $p = .004$, $\eta_p^2 = .04$). Consumers were less likely to compare their favorite possessions ($M = 3.26$, $SD = 1.92$), as opposed to all their possessions ($M = 3.62$, $SD = 1.95$; $p = .003$) or their most expensive possessions ($M = 3.62$, $SD = 1.99$; $p = .005$), with others' possessions. The latter two did not significantly differ ($p = .93$). A second repeated-measures analysis (Sphericity Assumed $F(2, 290) = 7.83$, $p < .001$, $\eta_p^2 = .05$) showed that consumers also found it less easy to engage in social comparisons with their favorite possessions ($M = 3.97$, $SD = 1.86$) than with all their possessions ($M = 4.35$, $SD = 1.76$; $p = .01$) or their most expensive possessions ($M = 4.58$, $SD = 1.83$; $p < .001$). The latter two did not significantly differ ($p = .12$). These results suggested that favorite possessions are incommensurable and, hence, resistant to social comparison.

2. First follow-up study referenced in Study 1

To test the possibility that the observed effect of a favorite possession was driven by a semantic priming of the concept "favorite", we conducted a follow-up study ($N = 477$) that was

almost identical to the Replication Study (Web Appendix E), except that it had a third condition, where participants recalled and described a favorite color. As before, income ($F(1, 469) = 34.76$, $p < .001$, $\eta_p^2 = .07$) and materialism ($F(1, 469) = 30.03$, $p < .001$, $\eta_p^2 = .06$) were kept as covariates. We found that inequality (vs. neutral) cue reduced SWB in the baseline condition (*Ms* = 4.12 vs. 4.83, $F(1, 469) = 10.28$, $p = .001$, $\eta_p^2 = .02$) and in the favorite color condition (*Ms* = 4.10 vs. 4.61, $F(1, 469) = 5.28$, $p = .02$, $\eta_p^2 = .01$). But this negative effect was mitigated in the favorite possession condition (*Ms* = 4.43 vs. 4.63, $F(1, 469) = .81$, $p = .37$, $\eta_p^2 = .002$). Thus, the mitigating effect of a favorite possession should not be driven by priming the general concept of "favorite", nor by a writing task distracting respondents' attention from income inequality (in which case, writing about a favorite color should produce the same effect).

3. Second follow-up study referenced in Study 1

We conducted a second follow-up study to rule out the possibility that the Bimboola inequality manipulation in Study 1 affected the type of favorite possessions that consumers recalled. As those in the favorite possession condition in Study 1, participants ($N = 180$ undergraduate students) completed the Bimboola manipulation task with the favorite possession manipulation embedded in it. They completed a comprehension check, a manipulation check ($\alpha = 82$), an attention check, and demographic information. They then rated the extent to which their favorite possession is special, meaningful, incommensurable (averaged to create an incommensurability index, $\alpha = 81$), expensive, and has good quality, on a series of 5-point scales (1 = *not at all*, 5 = *very much*). As in the main study, excluding 24 who failed the attention check and additional three who failed the Bimboola comprehension check resulted in a final $N = 153$ (73.9% female; $M_{age} = 21.80$, $SD_{age} = 2.06$). An ANOVA on the manipulation check showed that

the Bimboola paradigm successfully manipulated perceived income inequality (M_{high} = 6.30, SD_{high} = .92; M_{low} = 3.65, SD_{low} = 1.62; $F(1, 151) = 151.95$, $p < .001$, $\eta_p^2 = .50$). Moreover, separate ANOVA analyses yielded no significant difference between the two inequality conditions in their ratings of the recalled favorite possession's incommensurability (M_{high} = 4.14, SD_{high} = .94; M_{low} = 4.06, SD_{low} = .92; $F(1, 151) = .32$, $p = .57$, $\eta_p^2 = .002$), expensiveness (M_{high} = 3.47, SD_{high} = 1.43; M_{low} = 3.33, SD_{low} = 1.36; $F(1, 151) = .41$, $p = .52$, $\eta_p^2 = .003$), and product quality (M_{high} = 4.28, SD_{high} = .97; M_{low} = 4.34, SD_{low} = .89; $F(1, 154) = .15$, $p = .70$, $\eta_p^2 = .001$). These results suggested that the manipulation of perceived income inequality did not affect the type of possessions that participants recalled as their favorites.

4. Pilot study referenced in Study 2

This pilot study tested the underlying premise that favorite possessions tend not to be socially compared and that attending to one's favorite possession (but not one's general material possessions) reduces material comparisons. This study was pre-registered at: https://osf.io/wm7pa/?view_only=68b5294b54fb40a496c62d9afd9786e6.

Methods. Participants (N = 198 U.S. and U.K. Prolific workers) completed a 2-condition (attention to possessions: favorite possessions, general possessions) between-subjects study. To test the premise that favorite (vs. general) possessions are less comparable, participants 1) reported how likely people were to compare their favorite [general] material possessions with others' material possessions; 2) recalled and described their own favorite [general] material possessions and reported how likely they, personally, were to compare their own favorite [general] material possessions with others' material possessions. We asked participants to report both what people do and what they personally do to address a potential social desirability effect

on responses (i.e., participants might deny that they personally compare their favorite possessions with others' possessions, as we observed in the pilot study above, but still acknowledge this behavior in others). Moreover, we tested the premise that attending to one's favorite (vs. general) material possessions reduces material comparisons. Participants completed a material comparisons scale, where they reported the importance of, their interest in, and their tendency of, comparing their material possessions and wealth with those of others (α = .80, 7-point scale). Participants also completed demographics (e.g., age, gender, income), an attention check, and a materialism scale (Richins 2004; α = .89). Excluding those who failed the attention check (n = 13) resulted in a final N = 185 (70.3% female; M_{age} = 36.5, SD_{age} = 13.92).

Results on Comparability of Possessions. Two separate ANCOVAs were conducted using attention to possessions as a factor, and income and materialism as covariates. Participants reported that people, in general, were less likely to compare their favorite possessions (M = 4.63) than to compare their general possessions with others (M = 5.82; $F(1, 181) = 33.64$, $p < .001$, η_p^2 = .16). They also reported they, personally, were less likely to compare their own favorite possessions (M = 3.52) than to compare their own general possessions with others (M = 4.56; $F(1, 181) = 18.02$, $p < .001$, η_p^2 = .09). Thus, as in the pilot survey discussed above, favorite material possessions (vs. general material possessions) tend not to lend themselves to social comparison. The converging results in participants' responses for people in general and for themselves suggest that the observed effect is unlikely driven by socially desirable responses.

Results on Material Comparisons. More importantly, a third ANCOVA tested the effect of attention to possessions on material comparisons. Consistent with our theorizing, those in the favorite (vs. general) material possessions condition reported lesser tendencies to engage in material comparisons (Ms = 2.69 vs. 3.09; $F(1, 181) = 6.59$, p = .01, η_p^2 = .04). These findings

build on prior evidence that material purchases generate less SWB because they are more readily compared and more likely to increase social comparisons than experiences (Carter and Gilovich 2010; Howell and Hill 2009). In contrast, we find that favorite possessions are a special type of material possessions that are less comparable, and that attention to favorite possessions *reduces* social comparisons.

5. Follow-up study referenced in General Discussion (experiment on favorite possessions)

This experiment tested whether the incommensurability of a favorite possession depends on the objective product alignability and uniqueness of the possession.

Methods. We employed a three-condition (attention to possessions: favorite, favorite-alignable, favorite-unique) between-subjects design. In all conditions, participants (N = 266 American MTurkers) recalled and described their favorite possessions. Then, the favorite-alignable and favorite-unique conditions were both asked to "*think about the products that other people have that are similar to your favorite possession. For example, think about the other items that may have been alongside on the shelf when you purchased your favorite possession*". Furthermore, the *favorite-alignable* condition was asked to describe what those products might be and who might own them. This step was intended to make salient the objective similarity and alignability of one's favorite possession to other people's possessions. In contrast, those in the *favorite-unique* condition were asked to describe how and why their favorite possession is special and unique compared to others' products. This step was intended to make salient the subjective uniqueness of one's favorite possession compared to other people's possessions. All participants completed a 3-item possession incommensurability scale (*To what extent is your favorite possession… unique, special, incommensurable*; 1 = *Not at all*, 7 = *Very much*; α = .81),

and then reported how *easy* it was and how *likely* they were to compare their favorite possession with others' possessions. Finally, they reported writing task difficulty.

Results. Writing task difficulty differed in the favorite-unique and favorite conditions (M_{unique} = 2.51, SD_{unique} = 1.32 vs. $M_{favorite}$ = 1.97, $SD_{favorite}$ = 1.14; p = .005) and, hence, was included as a covariate in the following analyses. An ANCOVA revealed that participants in the favorite-alignable condition found it easier to compare a favorite possession (M = 5.38) than those in the favorite condition (M = 4.41, p < .001) and the favorite-unique condition (M = 4.77, p = .02; the latter two did not differ p = .17; Omnibus $F(2, 262) = 6.93$, p = .001, η_p = .05). This finding is consistent with prior research that suggests that alignable features make objects easy to compare (Zhang and Fitzsimons 1999; Zhang and Markman 2001). However, participants were not more likely to compare their favorite possessions, even when the alignability of the possession was made salient (Omnibus $F(2, 262) = 1.51$, p = .22, η_p = .01; contrast analysis: $M_{alignable}$ = 4.09 vs. $M_{favorite}$ = 3.60, p = .09; vs. M_{unique} = 3.73, p = .21; latter two conditions also did not differ p = .55).

More importantly, making salient the alignability between a favorite possession and another product did *not* make the favorite possession less incommensurable to its owner ($M_{alignable}$ = 4.61 vs. $M_{favorite}$ = 4.72, p = .61). Though, not surprisingly, making salient the uniqueness of a favorite possession marginally increased perceived incommensurability (M_{unique} = 5.07; vs. $M_{alignable}$ = 4.61, p = .05; vs. $M_{favorite}$ = 4.72, p = .11; Omnibus $F(2, 262) = 2.23$, p = .11, η_p = .02). In sum, even if a favorite possession had product attributes that were alignable to another product, its value was still considered incommensurable to its owner.

WEB APPENDIX B: STIMULI AND MEASURES

1. Attention to possessions manipulation

Study 1:

[Favorite condition]

As you move to Bimboola, you are bringing with you a favorite possession. This is a possession that you consider most favorite and special to you. ("Possession" here refer to a material product that you own, such as an item of clothing, shoes, jewelry, electronic device, book, etc.). In the space below, please describe your favorite possession and how it is special and meaningful to you. Remember, you will keep this favorite possession with you in Bimboola.

Study 2:

[Favorite condition]

Please take a moment to think about your favorite possession. (Possessions refer to material objects that you own, e.g., clothing, furniture, electronics, books, etc.).
In the space below, please describe your favorite possession and what comes to mind when thinking about it. Please provide detailed descriptions.

[All condition]

Please take a moment to think about all your possessions. (Possessions refer to material objects that you own).
In the space below, please describe what comes to mind when thinking about all your possessions. Please provide detailed descriptions of your thoughts and feelings.

Study 3:

[Favorite condition]

Most people have a favorite possession. We are interested what your favorite possession is.
Please take a moment to think about your favorite possession. That is, the one material possession that you consider as most special and meaningful to you.
In the space below, please describe your favorite possession and how this possession is special to you.

Study 4:

[Favorite condition]

Please take a moment to think about the clothes in your wardrobe.
In the following space, write about your favorite clothing item that you purchased for yourself

(i.e., the clothing item was not a gift from someone else, but something you personally purchased) in the past one year or so. Please list only the clothing item that you consider your most favorite, and describe it.

[All condition]

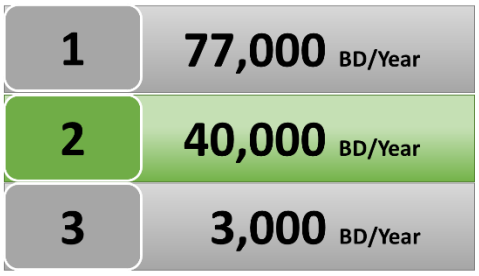
Please take a moment to think about the clothes in your wardrobe.
In the following space, we would like you to write about all the items that you purchased for yourself (i.e., the clothing item was not a gift from someone else, but something you personally purchased) in the past one year or so. Please list all the items you can remember, and describe each of them in a separate line.

2. Bimboola income inequality manipulation in Study 1
(adapted from Jetten, Mols and Postmes 2015)

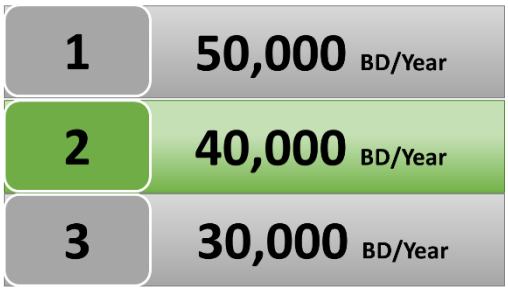
In this study you will become a citizen of a new society called Bimboola. You will start a new life there, and become a member of Bimboolean society. Bimboola is just like any other society. Bimboola is a society that is quite unequal in its wealth distribution. This means that the wealth gap between the poorest and wealthiest people in Bimboola is quite large (in particular compared to the wealth gap in other societies).

There are three main income groups in Bimboolean society. The income distribution in Bimboola takes the shape of the picture below.
You have been assigned to Income Group 2.

[High inequality]

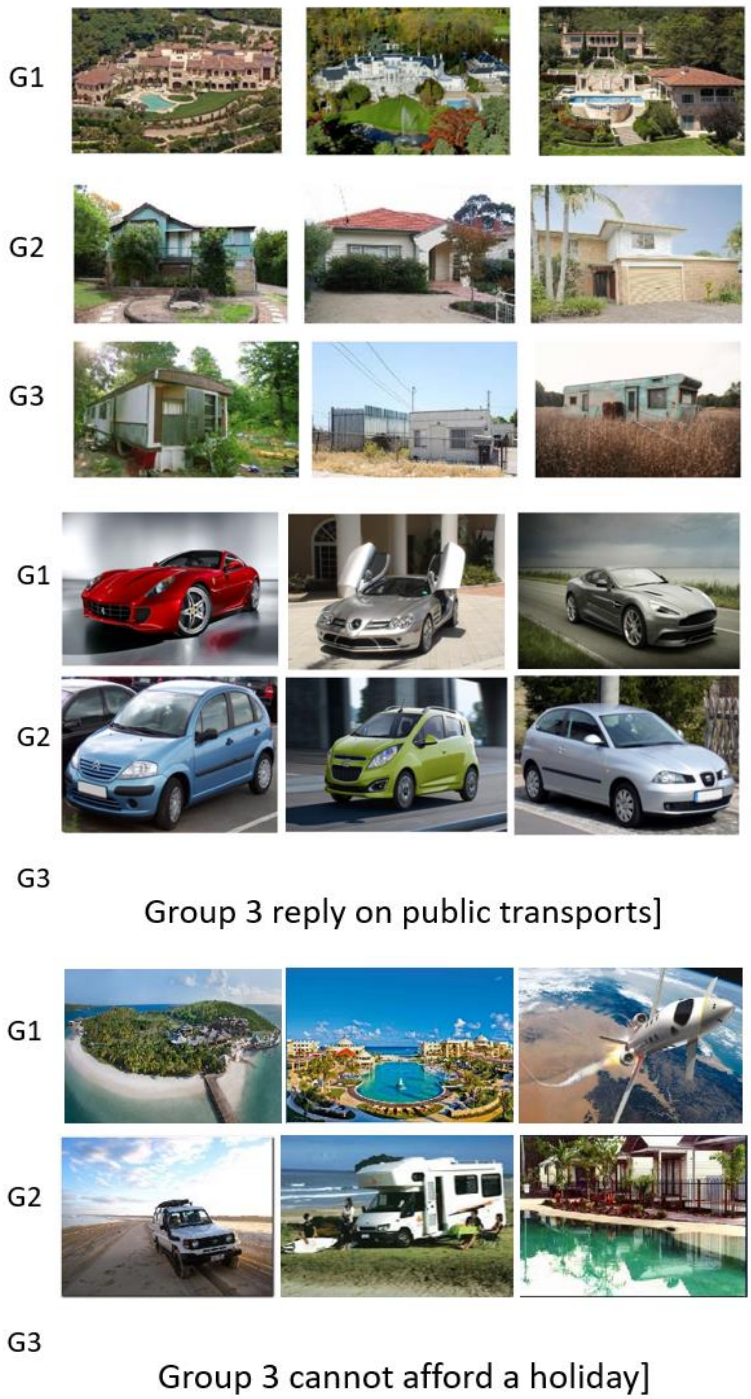


[Low inequality]



(Participants then were asked to choose a house, a transport, and a holiday. They could only choose from the options that were deemed affordable to their income group.)

[High inequality]



Group 3 reply on public transports]

Group 3 cannot afford a holiday]

[Low inequality]

G1

G2

G3

G1

G2

G3

G1

G2

G3

3. Inequality cue (video) manipulation in the Replication Study and Study 3

Please make sure to watch the entire video. This will take about 5-6 minutes. We will ask you questions about it later.
Do you have time to watch the entire video? (If no, please kindly exit the study)

Please click play on the video below
[participants cannot advance the screen unitl after the time of the entire video has passed]

[Neutral condition (brain science)]: https://youtu.be/5NubJ2ThK_U
[Inequality condition]: https://youtu.be/QPKKQnijnsM

4. Perceived income inequality measure

In Study 2 (measured in the beginning of the study)

Different societies have different income distributions. Economists have developed a Gini index to measure the extent to which income is distributed unequally among members of a society. A higher Gini index score indicates higher income inequality and a greater gap between the rich and the poor in a society. For example, Faroe Islands has the lowest income inequality in the world, with its Gini index score being 22.7; whereas Lesotho has the highest income inequality in the world, with its Gini index score being 63.2.
Now, please take a moment to think about the society in which you live. In your opinion, what is the level of income inequality in your society?
On the scale below, please drag the slider to indicate where you think your society locates along the Gini index. There is no right answer to this question. We are interested in your opinion!

Where do you think your society is on this scale?
(Remember, the higher the score, the more unequal the income distribution).
Extremely Equal 20 25 29 34 38 43 47 52 56 61 65 Extremely Unequal

In study 4 (measured at the end of study, after the DV)

To what extent do you agree or disagree with the following statement:
Income inequality exists in my country.
(1 = strongly disagree, 7 = strongly agree)

5. Subjective wellbeing (SWB) measure in Studies 1-4
The Satisfaction with Life Scale (Diener et al. 1985)

To what extent do you agree or disagree with the following statements?

- In most ways my life is close to my ideal
- The conditions of my life are excellent
- I am satisfied with my life
- So far, I have gotten the important things I want in life
- If I could live my life over, I would change almost nothing

(1 = strongly disagree, 7 = strongly agree)

6. Relative deprivation in Studies 2 and 3

(Callan et al. 2008)

To what extent do you agree or disagree with the following statements?
(1 = strongly disagree, 7 = strongly agree)

Relative deprivation subscale:

- When I think about what I have compared to others, I feel deprived.
- I feel resentful when I see how prosperous other people seem to be.

Relative privilege subscale:

- I feel privileged compared to other people like me.
- When I compare what I have with others, I realize that I am quite well off.

7. Material comparisons measures in Study 3

- How often do you find yourself comparing your material wealth with that of other people in the society?
- How often do you find yourself comparing the material wealth of your social group with that of another social group in the society?
- How interested are you in learning about the wealth level of another social group in your society?

(1 = not at all, 7 = very much)

8. Self-esteem measure in Study 1

State Self-esteem scale (Heatherton and Polivy 1991) (1 = not at all, 5 = extremely)

This is a question designed to measure what you are thinking at this moment. There is, of course, no right answer for any statement. The best answer is what you feel is true of yourself at this moment. Be sure to answer all of the items, even if you are not certain of the best answer.

- I feel confident about my abilities.
- I am worried about whether I am regarded as success or failure. (reversed)
- I feel satisfied with the way my body looks right now.
- I feel frustrated or rattled about my performance. (reversed)
- I feel that I am having trouble understanding things that I read. (reversed)
- I feel that others respect and admire me.

- I am dissatisfied with my weight. (reversed)
- I feel self-conscious. (reversed)
- I feel as smart as others.
- I feel displeased with myself. (reversed)
- I feel good about myself.
- I am pleased with my appearance right now.
- I am worried about what other people think of me. (reversed)
- I feel confident that I understand things.
- I feel inferior to others at this moment. (reversed)
- I feel unattractive. (reversed)
- I feel concerned about the impression I am making. (reversed)
- I feel that I have less scholastic ability right now than others. (reversed)
- I feel like I am not doing well. (reversed)
- I am worried about looking foolish. (reversed)

As an auxiliary analysis, we controlled for self-esteem in Study 1 to rule it out as an alternative mechanism.

9. Materialism measure in Studies 1-3

(Richins 2004)

How much does each of the following statement describes you? (1=not at all, 5=very much)

- I admire people who own expensive homes, cars, and clothes
- Some of the most important achievements in life include acquiring material possessions.
- I don't place much emphasis on the amount of material objects people own as a sign of success. (reversed)
- The things I own say a lot about how well I'm doing in life.
- I like to own things that impress people.
- I try to keep my life simple, as far as possessions are concerned. (reversed)
- The things I own aren't all that important to me. (reversed)
- Buying things gives me a lot of pleasure.
- I like a lot of luxury in my life.
- I put less emphasis on material things than most people I know. (reversed)
- I have all the things I really need to enjoy life. (reversed)
- My life would be better if I owned certain things I don't have.
- I wouldn't be any happier if I owned nicer things. (reversed)
- I'd be happier if I could afford to buy more things.
- It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.

We controlled for materialism because making salient material products, as we do, can influence state materialism (Bauer et al. 2012), which may in turn affect SWB (Dittmar et al. 2014; Ryan and Dziurawiec 2001); and we found that attention to favorite possessions affects SWB independent of materialism.

WEB APPENDIX C: DETAILED RESULTS OF ANALYSES ACROSS STUDIES

1. STUDY 1

This study was pre-registered at:
https://osf.io/fzc6a/?view_only=b424248b6c774c02a030a0417fdb4904.

ANCOVA on SWB, using the attention to possessions and income inequality manipulations as factors, and income and materialism as covariates.

DV = SWB, N = 576					***F*-statistics**	***p*-value**	η_p^2
Attention to possessions (favorite = 1, control = -1)					2.88	.090	.01
Inequality manipulation (high inequality = 1, low inequality = -1)					9.17	.003	.02
Attention to possessions * Inequality manipulation					10.58	.001	.02
Income					0.18	.672	<.001
Materialism					69.88	<.001	.11
Constant					819.26	<.001	.59
Simple effect of perceived income inequality, by attention to possessions conditions							
		Mean	***S.E.***	***95% CI***	***F*-statistics**	***p*-value**	η_p^2
Control	Low inequality	5.16	.11	[4.943, 5.384]	20.233	<.001	.03
	High inequality	4.47	.11	[4.266, 4.678]			
Favorite	Low inequality	4.99	.11	[4.784, 5.200]	.022	.881	<.001
	High inequality	5.02	.12	[4.788, 5.244]			

Analyses on Self-esteem

We repeated the ANCOVA on SWB, using the attention to possessions and income inequality manipulations as factors, and income, materialism and *self-esteem* as covariates. Our key results held, while controlling for self-esteem.

DV = SWB, N = 576	***F*-statistics**	***p*-value**	η_p^2
Attention to possessions (favorite = 1, control = -1)	3.67	.056	.01
Inequality manipulation (high inequality = 1, low inequality = -1)	10.85	.001	.02
Attention to possessions * Inequality manipulation	11.90	.001	.02
Income	1.19	.276	.002
Materialism	37.07	<.001	.06
Self-esteem	26.35	<.001	.04

			Constant	146.66	<.001	.21	
Simple effect of perceived income inequality, by attention to possessions conditions							
		Mean	***S.E.***	***95% CI***	***F*-statistics**	***p*-value**	η_p^2
Control	Low inequality	5.17	.11	[4.956, 5.388]	23.29	<.001	.04
	High inequality	4.45	.10	[4.244, 4.647]			
Favorite	Low inequality	5.01	.10	[4.803, 5.211]	.01	.921	<.001
	High inequality	5.02	.11	[4.799, 5.246]			

To further rule out the alternative explanation that our observed effects were driven by increased self-esteem due to recollection of a favorite possession, an ANCOVA on self-esteem, with perceived inequality and attention to possessions as factors, and income and materialism as covariates, were conducted. The results are reported below. We observed no interaction effect on self-esteem, ruling out the possibility that our effects on SWB were driven by self-esteem .

DV = self-esteem, N = 576	***F*-statistics**	***p*-value**	η_p^2
Attention to possessions (favorite = 1, control = -1)	.73	.394	.001
Inequality manipulation (high inequality = 1, low inequality = -1)	.88	.350	.002
Attention to possessions * Inequality manipulation	.34	.562	.001
Income	9.60	.002	.02
Materialism	87.07	<.001	.13
Constant	1251.16	<.001	.69

2. REPLICATION STUDY

ANCOVA on SWB, using attention to possessions and perceived income inequality (both manipulated) as factors, and income and materialism as covariates.

DV = SWB, N = 392				***F*-statistics**	***p*-value**	η_p^2
Attention to possessions (favorite = 1, control = -1)				3.07	.080	.01
Inequality manipulation (inequality cue = 1, neutral cue= -1)				3.24	.073	.01
Attention to possessions * Inequality manipulation				3.57	.060	.01
Income				58.60	<.001	.13
Materialism				42.12	<.001	.10
Constant				3599.52	<.001	.90
Simple effect of perceived income inequality, by attention to possessions conditions						
		Mean	***S.E.***	***95% CI***	***F*-statistics**	***p*-value**	η_p^2
Control	Neutral	4.43	.15	[4.147, 4.717]	6.82	.009	.02
	Inequality	3.90	.14	[3.628, 4.181]			

Favorite	Neutral	4.41	.14	[4.130, 4.695]	.004	.951	<.001
	Inequality	4.43	.14	[4.145, 4.704]			

3. STUDY 2

Regression on SWB, using favorite possession, all possessions, perceived income inequality (standardized), favorite X perceived inequality, all X perceived inequality, income, and materialism as predictors.

Linear regression					N = 571
DV = SWB					
	β	***S.E.***	***t*-statistics**	***p*-value**	***95% CI***
Perceived inequality (standardized)	-.32	.09	-3.64	<.001	[-.498, -.149]
Favorite possession	.44	.13	3.36	.001	[.184, .701]
All possessions	.29	.13	2.16	.031	[.026, .549]
Favorite * Perceived inequality (standardized)	.27	.13	2.00	.046	[.005, .529]
All * Perceived inequality (standardized)	.08	.13	.643	.520	[-0.173, .341]
Income (standardized)	.35	.06	6.45	<.001	[.245, .460]
Materialism (standardized)	-.25	.06	-4.63	<.001	[-.359, -.145]
Constant	4.54	.09	49.35	<.001	[4.357, 4.718]
Simple effect of perceived inequality, by attention to possessions conditions					
Baseline control	-.32	.09	-3.64	<.001	[-.498, -.149]
All possessions	-.24	.10	-2.51	.013	[-.427, -.051]
Favorite possession	-.06	.10	-.57	.569	[-.252, .138]

Regression on relative deprivation, using favorite possession, all possessions, perceived income inequality (standardized), favorite X perceived inequality, all X perceived inequality, income, and materialism as predictors.

Linear regression					N = 571
DV = Relative deprivation					
	β	***S.E.***	***t*-statistics**	***p*-value**	***95% CI***
Perceived inequality (standardized)	.25	.09	2.87	.004	[.079, .422]
Favorite possession	-.34	.13	-2.60	.010	[-.590, -.082]
All possessions	-.24	.13	-1.84	.067	[-.497, .017]
Favorite * Perceived inequality (standardized)	-.31	.13	-2.37	.018	[-.569, -.054]
All * Perceived inequality (standardized)	-.12	.13	-.96	.338	[-0.376, .129]

Income (standardized)	-.33	.05	-6.16	<.001	[-.436, -.225]
Materialism (standardized)	.84	.05	15.76	<.001	[.739, .949]
Constant	3.07	.09	33.94	<.001	[2.887, 3.242]
Simple effect of perceived inequality, by attention to possessions conditions					
Baseline control	.25	.09	2.87	.004	[.079, .422]
All possessions	.13	.09	1.36	.175	[-.057, .312]
Favorite possession	-.06	.10	-.62	.536	[-.252, .131]

Moderated mediation analysis, using SWB as the DV, relative deprivation as the mediator, attention to possessions as the moderator (using the control condition as the benchmark condition), and income and materialism as covariates. PROCESS Model 8.

Linear regression including the mediator					N = 571
DV = SWB					
	β	***S.E.***	***t*-statistics**	***p*-value**	***95% CI***
Perceived inequality (standardized)	-.27	.09	-3.08	.002	[-.443, -.098]
Relative Deprivation	-.21	.04	-5.02	<.001	[-.293, -.128]
Favorite possession	.37	.13	2.86	.004	[.117, .626]
All possessions	.24	.13	1.81	.070	[-.020, .494]
Favorite * Perceived inequality (standardized)	.20	.13	1.53	.126	[.057, .459]
All * Perceived inequality (standardized)	.06	.13	.45	.651	[-.194, .310]
Income (standardized)	.28	.06	5.11	<.001	[.174, .391]
Materialism (standardized)	-.07	.06	-1.16	.247	[-.200, .052]
Constant	5.18	.16	33.00	<.001	[4.875, 5.492]
Conditional direct effect of perceived inequality on SWB					
Baseline control	-.27	.09	-3.08	.002	[-.443, -.098]
All possessions	-.21	.09	-2.26	.024	[-.396, -.028]
Favorite possession	-.07	.10	-.71	.476	[-.261, .122]
Conditional indirect effects of perceived inequality on SWB (Perceived inequality → relative deprivation → SWB, moderated by attention to possessions)					
		β	***S.E.***	***95% CI***	
Baseline control		-.05	.02	[-.104, -.011]	
All possessions		-.03	.02	[-.075, .016]	
Favorite possession		.01	.02	[-.026, .054]	
Index of moderated mediation (difference between conditional indirect effects)					
		Index	***S.E.***	***95% CI***	
All possessions vs. baseline control		.03	.03	[-.036, .093]	
Favorite possession vs. baseline control		.07	.03	[.009, .134]	

4. STUDY 3

The study was pre-registered at https://osf.io/es3dr/?view_only=fddadfd9dde1432a82189f596a3e2c2f.

Material comparisons. ANCOVA on material comparisons, using attention to possessions and perceived inequality as factors, and income and materialism as covariates.

DV = Material comparisons, N = 985					***F*-statistics**	***p*-value**	η_p^2
Attention to possession (favorite = 1, control = -1)					9.55	.002	.01
Inequality manipulation (inequality cue = 1, neutral cue = -1)					23.12	<.001	.02
Attention to possession * Inequality					2.91	.088	.003
Income					5.47	.020	.006
Materialism					354.07	<.001	.27
Constant					22.58	<.001	.02
Simple effect of perceived income inequality, by attention to possessions conditions							
		Mean	***S.E.***	***95% CI***	***F*-statistics**	***p*-value**	η_p^2
Control	Neutral	3.51	.08	[3.349, 3.676]	21.55	<.001	.02
	Inequality	4.04	.08	[3.890, 4.199]			
Favorite	Neutral	3.40	.08	[3.241, 3.557]	4.739	.030	.005
	Inequality	3.65	.08	[3.487, 3.818]			

Relative Deprivation. Indirect effects on relative deprivation: a moderated mediation analysis, using relative deprivation as the DV, social comparison as the mediator, attention to possessions as the moderator, and income and materialism as covariates. PROCESS Model 7.

Linear regression on the mediator social comparisons					N = 985
DV = Material comparisons (parallel to the ANCOVA on material comparisons above)					
	β	***S.E.***	***t*-statistics**	***p*-value**	***90% CI***
Attention to possession (favorite = 1, control = -1)	-.13	.04	-3.09	.002	[-.194, -.060]
Inequality manipulation (inequality cue = 1, neutral cue = -1)	.20	.04	4.81	<.001	[.129, .264]
Attention to possession * Inequality	-.07	.04	-1.71	.088	[-.137, -.002]
Income	.02	.01	2.34	.020	[.007, .040]
Materialism	.99	.05	18.82	<.001	[.904, 1.078]
Constant	.83	.17	4.75	<.001	[.541, 1.114]
Linear regression on relative deprivation, including the mediator social comparisons					
DV = Relative deprivation					
	β	***S.E.***	***t*-statistics**	***p*-value**	***90% CI***
Inequality manipulation (inequality cue = 1, neutral cue = -1)	.15	.04	3.55	<.001	[.079, .217]

Material comparisons	.48	.03	14.85	<.001	[.424, .530]
Income	-.08	.01	-8.01	<.001	[-.097, -.064]
Materialism	.60	.06	9.61	<.001	[.495, .699]
Constant	.63	.18	3.54	<.001	[.338, .925]

Conditional indirect effect of perceived inequality manipulation on relative deprivation *(Perceived inequality → material comparison → relative deprivation, moderated by attention to possessions conditions)*

	β	***S.E.***	***90% CI***
Baseline control	.13	.03	[.081, .178]
Favorite possession	.061	.03	[.017, .109]

Index of moderated mediation (difference between conditional indirect effects)

	Index	***S.E.***	***90% CI***
	-.067	.04	[-.133, -.004]

Direct effects on relative deprivation: an ANCOVA on relative deprivation, using the attention to possessions and income inequality manipulations as factors, and income and materialism as covariates.

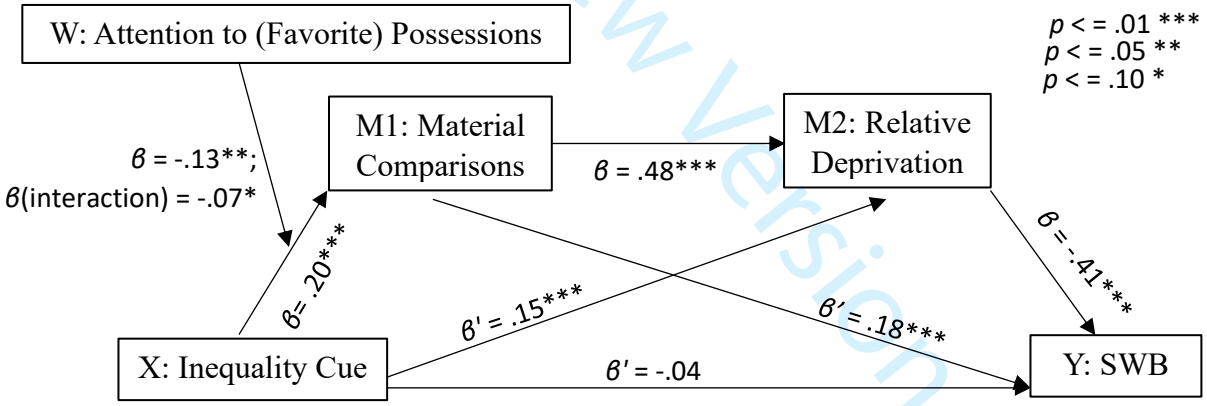
DV = Relative deprivation, N = 985		***F*-statistics**		***p*-value**	η_p^2
Attention to possession (favorite = 1, control = -1)		2.67		1.03	.003
Inequality manipulation (inequality cue = 1, neutral cue = -1)		27.79		<.001	.03
Attention to possession * Inequality		1.77		.183	.002
Income		39.56		<.001	.04
Materialism		330.06		<.001	.25
Constant		27.82		<.001	.03
Simple effect of perceived income inequality, by attention to possessions conditions					
		Mean	***S.E.***	***95% CI***	***F*-statistics**	***p*-value**	η_p^2
Control	Neutral	3.08	.09	[2.895, 3.261]	22.15	<.001	.02
	Inequality	3.68	.09	[3.509, 3.854]			
Favorite	Neutral	3.05	.09	[2.874, 3.227]	7.64	.006	.01
	Inequality	3.41	.09	[3.226, 3.596]			

SWB. Full conceptual model with serial indirect effects on SWB: a moderated serial mediation analysis, using SWB as the DV, social comparison as the first mediator, relative deprivation as the second mediator, attention to possessions as the moderator, and income and materialism as covariates. PROCESS Model 83 (Figure W1).

Linear regression on SWB including both mediators (social comparisons, relative deprivation)					
DV = SWB					N = 985
	β	***S.E.***	***t*-statistics**	***p*-value**	***90% CI***
Inequality manipulation (inequality	-.04	.04	-.92	.358	[-.112, .032]

cue = 1, neutral cue = -1)					
Material comparisons	.18	.04	4.93	<.001	[.121, .242]
Relative deprivation	-.41	.03	-12.33	<.001	[-.462, -.353]
Income	.10	.01	9.21	<.001	[.081, .117]
Materialism	-.49	.07	-7.28	<.001	[-.600, -.378]
Constant	5.24	.19	28.24	<.001	[4.935, 5.546]
Note: Model 83 also included the linear regressions on material comparisons and on relative deprivation that are identical to those in Model 7, which we reported above, and hence we did not report again here.					
Conditional serial indirect effect of inequality manipulation on SWB *(Full model: Perceived inequality → material comparisons → relative deprivation → SWB, moderated by attention to possessions)*					
	B	***S.E.***	***90% CI***		
Baseline control	-.05	.01	[-.074, -.032]		
Favorite possession	-.02	.01	[-.044, -.006]		
Index of moderated mediation (difference between conditional indirect effects)					
	Index	***S.E.***	***90% CI***		
	.03	.02	[.001, .055]		

Figure W1: Full Model Diagram (PROCESS Model 83)



Direct effects on SWB: an ANCOVA on SWB, using the attention to possessions and income inequality manipulation as factors, and income and materialism as covariates.

DV = SWB, N = 985	***F*-statistics**	***p*-value**	η_p^2
Attention to possessions (favorite = 1, control = -1)	5.74	.017	.006
Inequality manipulation (inequality cue = 1, neutral cue = -1)	4.42	.036	.004
Attention to possessions * Inequality	1.97	.16	.002
Income	141.56	<.001	.126

			Materialism	159.44	<.001	.140	
			Constant	648.81	<.001	.399	
Simple effect of perceived income inequality, by attention to possessions conditions							
		Mean	***S.E.***	***95% CI***	***F*-statistics**	***p*-value**	η_p^2
Control	Neutral	4.12	.09	[3.932, 4.298]	6.24	.013	.006
	Inequality	3.79	.09	[3.620, 3.967]			
Favorite	Neutral	4.21	.09	[4.029, 4.383]	.24	.623	<.001
	Inequality	4.14	.10	[3.956, 4.327]			

5. STUDY 4

Multi-level linear model testing the perceived income inequality X attention to possessions interaction on SWB, controlling for actual income inequality and the actual income inequality X attention to possessions interaction.

Mixed-effect ML regression			Number of observations = 1370		
Group variable: CountryCode			Number of groups = 8		
DV = SWB	***β***	***S.E.***	***z*-statistics**	***p*-value**	**95% CI**
Attention to possessions (favorite = 1, all = -1)	.002	.03	.07	.944	[-.062, .066]
std_Gini	-.03	.19	-.17	.864	[-.340, .405]
Attention to possessions * std_Gini	.07	.03	2.14	.033	[.006, .136]
std_perceived_inequality	-.05	.04	-1.21	.225	[-.132, .031]
Attention to possessions * std_perceived_inequality	.07	.03	1.96	.050	[-.000, .130]
Constant	4.81	.19	25.28	<.001	[4.441, 5.187]
Simple effect of perceived inequality, by attention to possessions conditions					
All possessions	-.12	.05	-2.15	.032	[.221, -.010]
Favorite possession	.01	.05	.27	.787	[-.089, .118]
Simple effect of country-level Gini, by attention to possessions conditions					
All possessions	-.04	.19	-.20	.843	[-.416, .340]
Favorite possession	.10	.19	.54	.592	[-.275, .481]

Exploratory analysis

Multi-level linear model testing the 3-way interaction of perceived inequality X attention to possessions X actual inequality on SWB.

Mixed-effect ML regression			Number of observations = 1370		
Group variable: CountryCode			Number of groups = 8		
DV = SWB	***β***	***S.E.***	***z*-statistics**	***p*-value**	**95% CI**

Attention to possessions (fav = 1, all = -1)	.005	.03	.27	.790	[-.056, .074]
std_Gini	.03	.19	.18	.860	[-.335, .402]
Attention to possessions * std_Gini	.07	.03	2.11	.035	[.005, .135]
std_perceived_inequality	-.03	.04	-.57	.566	[-.115, .063]
Attention to possessions * std_perceived_inequality	.06	.03	1.75	.080	[-.007, .127]
std_Gini * std_perceived_inequality	-.06	.04	-1.39	.165	[-.136, .023]
Attention to possessions * std_Gini * std_perceived_inequality	.02	.03	.54	.592	[-.047, .083]
Constant	4.81	.19	25.48	<.001	[4.435, 5.175]

6. STUDY 5

We used the Linguistic Inquiry Word Count (LIWC) software to compute emotionality associated with each post, and calculated the net positive emotions as a proxy measure of happiness associated with the posts. LIWC uses a dictionary to identify target words in text, categorize words by linguistic dimension (e.g., positive, negative emotions) and calculate the proportion of words in each dimension (Pennebaker et al. 2015). Emotions calculated by LIWC were used as affective measures (Abe 2011; Tausczik and Pennebaker 2010) and found consistent with self-reported emotions (Tang and Guo 2015) and human coders' ratings (Goranson et al. 2017). Below we report the results of our analyses.

Linear regression on net positive emotions, using #favorite-possessions, Gini, and their interaction as independent variables, and country dummy variables as covariates.

Linear regression					N = 31,332
DV = net positive emotions					
	β	***S.E.***	***t*-statistics**	***p*-value**	***95% CI***
#favorite-possessions (yes=1, no=-1)	-1.54	.33	-4.66	<.001	[-2.181, -.889]
Gini	-.13	.08	-1.62	.105	[-.279, .026]
#favorite-possessions * Gini	.02	.01	2.27	.023	[.003, .036]
Constant	10.21	3.52	2.90	.004	[3.305, 17.105]
Analysis of simple effect of Gini, by # of posts					
#s in the comparison group	-.15	.08	-1.89	.059	[-.298, .006]
# favorite-possessions	-.11	.08	-1.34	.179	[-.263, .049]
Note: we do not report the fixed effects of the 137 country dummy variables here for exposition ease. Details of these results are available by request.					

Multi-level linear model on net positive emotions, where #favorite-possessions, Gini, and their interaction were the independent variables, and country was a group-level variable.

Mixed-effects ML regression			Number of observations = 31,332

Group variable: country				Number of groups = 138	
DV = net positive emotions					
	β	***S.E.***	***z*-statistics**	***p*-value**	***95% CI***
#favorite-possessions (yes=1, no=-1)	-1.55	.39	-3.92	<.001	[-2.320, -.773]
Gini	-.02	.02	-.86	.389	[-.067, .026]
#favorite-possessions * Gini	.02	.01	1.90	.058	[-.001, .040]
Constant	5.69	.87	6.52	<.001	[3.982, 7.402]
Analysis of simple effect of Gini, by # of posts					
#s in the comparison group	-.04	.02	-1.75	.081	[-.085, .004]
# favorite-possessions	-.001	.03	-.03	.978	[-.057, .055]

Auxiliary Analyses:

Income inequality and the likelihood of posting #favorite-possessions

We tested the relationship between income inequality and the likelihood of posting #favorite-possessions in a fixed effects regression using #favorite-possession as the DV, the Gini index as the IV, and country dummy variables as covariates:

Linear regression				N = 31,332	
DV = posting #favorite-possessions					
	β	***S.E.***	***t*-statistics**	***p*-value**	***95% CI***
Gini	-.01	.004	-2.42	.015	[-.016, -.002]
Constant	.45	.18	2.42	.015	[.085, .806]
Note: we do not report the fixed effects of the 137 country dummy variables here for ease of exposition. Details of these results are available by request.					

Study 5 analyses using a subset of data that contain only clothing related hashtags

We analyzed a subset of data containing only hashtags for clothing (N = 7,475 from 119 countries) to be more parallel to the favorite clothing vs. all clothing items comparison in Study 4. The variable #favorite-clothing = 1 if a post contains #favoriteshirt or #favoritedress (i.e., favorite clothing); #favorite-clothing = -1 if a post contains #wardrobe, #fashion, or #swag (i.e., general clothing consumption). We excluded n=200 posts that contained hashtags in both groups; but including these posts yielded similar interaction results be they coded either as "1" or "-1".

Linear regression on net positive emotions:

Linear regression					N = 7,475
DV = net positive emotions					
	β	***S.E.***	***t*-statistics**	***p*-value**	***95% CI***
#favorite-clothing (yes=1, no=-1)	-2.23	.66	-3.37	.001	[-3.535, -.935]
Gini	-.64	.17	-3.73	<.001	[-.981, -.306]
#favorite-clothing * Gini	.04	.02	2.03	.043	[.001, .071]

Constant	33.74	8.64	3.90	<.001	[16.795, 50.688]
Analysis of simple effect of Gini, by # of posts					
General clothing	-.68	.17	-3.97	<.001	[-1.015, -.344]
Favorite clothing	-.61	.18	-3.47	.001	[-.951, -.264]
Note: we do not report the fixed effects of the 118 country dummy variables here for expositional ease. Details of these results are available on request.					

Multi-level linear model on net positive emotions:

Mixed-effects ML regression			Number of observations = 7,475		
Group variable: country			Number of groups = 119		
DV = net positive emotions					
	β	***S.E.***	***z*-statistics**	***p*-value**	***95% CI***
#favorite-clothing (yes=1, no=-1)	-2.22	.70	-3.17	.002	[-3.594, -.849]
Gini	-.05	.04	-1.46	.144	[-.121, -.018]
#favorite-clothing * Gini	.04	.02	1.91	.057	[-.001, .072]
Constant	6.39	1.30	4.91	<.001	[3.836, 8.934]
Analysis of simple effect of Gini, by # of posts					
General clothing	-.09	.03	-2.52	.012	[-.155, -.019]
Favorite clothing	-.02	.04	-.36	.721	[-.103, .072]

Linear regression on posting #favorite-clothing:

Linear regression			N = 7,475		
DV = posting #favorite-possessions					
	β	***S.E.***	***t*-statistics**	***p*-value**	***95% CI***
Gini	-.06	.02	-2.81	.005	[-.099, -.018]
Constant	1.94	1.05	1.85	.064	[-.114, 3.997]
Note: we do not report the fixed effects of the 118 country dummy variables here for expositional ease. Details of these results are available on request.					

Descriptive Summary of Participant Demographics in Studies 1-4

	Population	Usable N	Gender	Age
Study 1	American MTurkers	576	60.8% female	M_{age} = 39.5, SD_{age} = 12.50
Replication Study	American MTurkers	392	60.7% female	M_{age} = 37.8, SD_{age} = 12.87
Study 2	American MTurkers	571	53.1% female	M_{age} = 38.77, SD_{age} = 12.37
Study 3	American MTurkers	985	49.6% femal	M_{age} = 39.94, SD_{age} = 14.13
Study 4 (Qualtrics Panel participants from eight countries)	*China*	172	47.1% female	M_{age} = 41.42, SD_{age} = 11.80
	India	145	44.8% female	M_{age} = 46.36, SD_{age} = 14.38
	Pakistan	178	28.1% female	M_{age} = 37.05, SD_{age} = 11.93
	U.K.	137	48.2% female	M_{age} = 45.98, SD_{age} = 14.28
	Spain	166	50.0% female	M_{age} = 44.63, SD_{age} = 13.20
	Russia	212	51.4% female	M_{age} = 43.04, SD_{age} = 12.74
	Chile	198	51.5% female	M_{age} = 44.69, SD_{age} = 14.36
	Mexico	162	45.7% female	M_{age} = 44.23, SD_{age} = 13.91

Annual Income (%)

Study 1, US, *$*	*Below 10,000*	*10,000-19,999*	*20,000-29,999*	*30,000-39,999*	*40,000-49,999*	*50,000-59,999*	*60,000-69,999*	*70,000-79,999*	*80,000-89,999*	*90,000-99,999*	*100,000 - 149,999*	*Above 150,000*
%	4.7	8.2	10.8	11.5	11.5	11.1	8.3	6.3	5.2	5.2	9.9	7.5

Replication Study, US, *$*	*Below 20,000*	*20,000-35,000*	*35,000-50,000*	*50,000-65,000*	*65,000-80,000*	*80,000-100,000*	*Above 100,000*
%	19.9	19.6	17.3	16.1	8.9	11.7	6.4

Study 2, US, *$*	*Below 20,000*	*20,000-35,000*	*35,000-50,000*	*50,000-65,000*	*65,000-80,000*	*80,000-100,000*	*Above 100,000*
%	14.0	19.3	19.6	18.4	11.0	9.1	8.6

Study 3, US, *$*	*Below 10,000*	*10,000-19,999*	*20,000-29,999*	*30,000-39,999*	*40,000-49,999*	*50,000-59,999*	*60,000-69,999*	*70,000-79,999*	*80,000-89,999*	*90,000-99,999*	*100,000-149,999*	*Above 150,000*
%	15.3	11.5	11.0	9.8	9.4	8.9	6.5	6.4	5.3	3.0	8.4	4.4

Study 4 (breakdown by country)

China, ¥	*Below 20,000*	*20,001-100,000*	*100,001-150,000*	*150,001 - 200,000*	*200,001-250,000*	*250,001-300,000*	*Above 300,000*
%	3.5	41.9	19.2	13.4	10.5	5.8	5.8

India, ₹	*Below 20,000*	*20,001-50,000*	*50,001-80,000*	*80,001-110,000*	*110,001-140,000*	*140,001-170,000*	*Above 170,000*
%	6.9	3.4	2.8	8.3	2.8	6.2	69.7
Pakistan, *Rs*	*Below 30,000*	*30,001-80,000*	*80,001-130,000*	*130,001-180,000*	*180,001-230,000*	*230,001-280,000*	*Above 280,000*
%	15.7	19.1	6.7	8.4	5.1	5.6	39.3
U.K., £	*Below 20,000*	*20,001-40,000*	*40,001-60,000*	*60,001-80,000*	*80,001-100,000*	*100,001-120,000*	*Above 120,000*
%	28.5	41.6	7.3	8.0	5.8	1.5	7.3
Spain, €	*Below 10,000*	*10,001-30,000*	*30,001-50,000*	*50,001-70,000*	*70,001-90,000*	*90,001-110,000*	*Above 110,000*
%	14.5	45.8	29.5	7.8	.6	1.2	.6
Russia, *RUB*	*Below 100,000*	*100,001-500,000*	*500,001-1,000,000*	*1,000,001-1,500,000*	*1,500,001-2,00,000*	*2,000,001-2,500,000*	*Above 2,500,000*
%	16.5	51.9	20.8	6.6	1.9	1.9	.5
Chile, *Chilean $*	*Below 1,000,000*	*1,000,001-10,000,000*	*10,000,001-20,000,000*	*20,000,001-30,000,000*	*30,000,001-40,000,000*	*40,000,001-50,000,000*	*Above 50,000,000*
%	24.2	41.4	22.2	5.6	3.0	.5	3.0
Mexico, *Mex $*	*Below 50,000*	*50,001-150,000*	*150,001-250,000*	*250,001-350,000*	*350,001-450,000*	*450,001-550,000*	*Above 550,000*
%	19.8	14.2	18.5	14.8	9.9	8.0	14.8

WEB APPENDIX D: CONTENT ANALYSIS IN STUDY 1 & STUDY 3

Two research assistants blind to the hypotheses and the conditions of participants independently coded participants' descriptions of their favorite possessions in the writing task. They coded whether the favorite possession described in each response fell into 10 categories (adapted from Richins 1994, see Web-Appendix-IV Table W1). These categories were not mutually exclusive: a possession was coded "1" for as many categories as it fitted (coded "0", if otherwise). They represented the different values the owner mentioned about their favorite possessions and, thus, the categorization was based on participants' explicit mentions of what aspects of the possession they valued . For example, while a sewing machine is generally considered a utilitarian product, if the response did not mention the machine's utilitarian value, but instead mentioned its interpersonal value (e.g., the sewing machine is a favorite because it is a gift from a significant other), then the possession would be coded "0" for the utilitarian category and "1" for the "interpersonal" category. The coding scheme is summarized in Table W1. The two coders matched in 89%-100% of their coding across categories and studies. They discussed and reconciled all disagreements to produce the final coding.

Table W1: Coding Scheme

Category	***Criteria***
Utilitarian	• Provides a necessity such as a shelter, transportation, food: "it gets me to and from where I need to go" (car), "can't see without them" (eyeglasses)
	• Enhances efficiency or effectiveness; necessary for work: "it keeps me organized" (computer), "helps me do my work" (tractor)
	• Valued for performance characteristics or functional attributes: "it's safe" (sailboat), "because it sounds great" (electric guitar)
	• Provides me freedom, independence: "it represents freedom to me" (car), "makes me feel independent" (house)
Enjoyment	• Provides pleasure, enjoyment, entertainment; allows a pleasurable activity: "the joy of listening to music" (stereo equipment), "I love to ski" (skis)
	• Provides relaxation, comfort, a retreat or escape, feelings of security: "relaxing" (lawn glider), "symbol of peacefulness" (home)

	• Provides companionship: "makes me feel special and loved" (cat), "it is my friend" (piano)
Interpersonal	• Symbolic ties to others (except gifts): "was made by my son" (wall plaque), "bought with my husband on our honeymoon" (painting)
	• Gifts: "a friend gave it to me during a difficult period in her life" (friendship ring), "was given to me by a boyfriend" (leather jacket)
	• Symbolic of family history: "because of how long it as been in the family - I'm the fifth generation to own it" (secretary desk), "it is a family heirloom" (sterling silverware)
	• Facilitates creation or strengthening of interpersonal ties: "a place for social entertainment" (swimming pool), "the center of our family life" (home)
Identity	• Is a part of the self or express the self; includes religious and ethnic identity [as well as political, sexual, cultural identity]: "expression of my style" (clothing), "where I write my thoughts" (journal)
	• Allows creative expression: "creative outlet" (violin), "personal satisfaction of making and designing clothes" (sewing machine)
	• Symbolizes personal history: "reminds me of my time in Germany" (cuckoo clock), "had them since I was a teenager" (drums)
Achievement	• Requires a lot of effort for me to acquire or maintain (e.g., i worked very hard to get my new laptop)
	• Reminds me of my skills, achievement and goal (e.g., trophy, graduation tokens)
Financial	• References to investment value or equity, provides financial security: "a good financial investment" (real estate), "security - we have a lot of equity built up" (house)
	• References to cost or expense of the possession: "it costs a lot" (car), "too expensive to replace" (furs)
Appearance	• Possession's appearance enhances owner's appearance or self-feelings: "I look good when I wear them" (leather boots), "wearing beautiful things makes me feel good" (jewelry)
	• References to the appearance of the possession itself: "it looks good" (new Honda Prelude), "I like the style of it" (home)
Status	• Has social prestige value, gives me social status, makes others think well of me: "it's a luxury brand"
	• Something is rare, exclusive, and unique in the market: "my wedding ring is one of a kind", "this is an limited edition"
Brand	• Explicit mention of brand name "I like it because it's Gucci" [products with celebrities' names are not considered branded]
	• Reference to the brand of the product (indirectly) "I like the brand of this product)
Social comparison	• Explicit mention of the product being better or worse than products that are owned by other people: "I have a better phone than my friends"
Other	• Possessions valued for other reasons not included above (mutually exclusive from the other categories)

Study 1

Values of a Favorite Possession. Examples and the proportions of responses in each category are summarized in Web-Appendix-IV Table W2. The most common values mentioned by respondents in their favorite possessions were interpersonal (53.2%), utilitarian (42.2%), and enjoyment (34%) values. In contrast, relatively few participants valued their favorite possessions because the possession could signal status (1.8%). This is interesting because much research suggests that consumers facing income inequality are often drawn to status signaling goods (e.g., Walasek and Brown 2015; Walasek, Bhatia and Brown 2018). But here, we found that when thinking about *favorite* possessions – which are effective in mitigating the negative effect of perceived income inequality – consumers infrequently mention the status signaling value (1.8%) or brand names (7.8%) of the favorite possessions.

Table W2: Examples and Proportions of Responses in Each Category, Study 1

Category	**Study 1: Example (*N* = 282)**	**%**
Utilitarian	My phone because it functions in many different ways, such as the internet, keeping in touch with family, and entertainment.	42.2%
Enjoyment	I would bring with me my gaming console. Among the many things I have it's my favorite stress reliever. I love to read but don't always find myself being soothed by books. I can turn on my console and just go along on the interactive journey.	34%
Interpersonal	A music box that has been handed down in my family for generations. I used to play it as child every time I visited my uncle. When I got older, he passed it on to me knowing that I would cherish and love it.	53.2%
Identity	My childhood stuffed bear will come with me to Bimboola. The item has been my best friend over the years.	15.6%
Achievement	My first ever gaming pc that I built with my own hands and saved up for almost 1 year to buy, its special because it's the first time I did something so big for myself.	4.3%
Financial	My laptop. It's this because it is useful and was expensive. I need this to be able to function and have to possibly use to make money.	5.7%
Appearance	My touchscreen laptop is by far one of my favorite possessions. It is black in color and has a few girly stickers on it to brighten it up.	4.3%

Status	My first luxury purchase. I grew up poor so it meant a lot to be able to afford something so expensive.	1.8%
Brand	I love my Chanel purse, I know that it is a status item and all that goes with it. But it is also something that is meaningful to me. I bought it with money I saved from paying off my student loans early. It is a sign of my success, sacrifice, and hard work.	7.8%
Social Comparison	N/A	0%
Note: The categories are not mutually exclusive. The sample size in the content analysis for Study 1 was 282 because only those in the favorite (but not the control) condition completed the writing task, as part of the Bimboola paradigm.		

*Effect of Inequality Manipulation on Favorite Possessions Recalled***.** We tested whether our perceived income inequality manipulation might affect the values ascribed to the possessions that consumers recalled as favorites. Chi-squared analyses found little difference in the values being mentioned between the high versus low perceived inequality conditions. Web-Appendix-IV Table W3 summarizes our results.

Table W3: Proportion of Responses in Each Condition across Categories, Study 1

Study 1 (N = 282)	Low inequality (n=154)	High inequality (n=128)	Pearson X^2	*p*-value
Utilitarian	43.5%	40.6%	.24	.63
Enjoyment	31.8%	36.7%	.75	.39
Interpersonal	55.2%	50.8%	.55	.46
Self-Identity	14.3%	17.2%	.45	.50
Achievement	3.9%	4.7%	.11	.74
Financial	5.2%	6.3%	.15	.70
Appearance	3.9%	4.7%	.11	.74
Status	1.9%	1.6%	.06	.81
Brand	7.8%	7.8%	<.001	.99
Social Comparison	0%	0%	NA	NA

Study 3

Values of a Favorite Possession. Examples and the proportions of responses in each category are summarized in Web-Appendix-IV Table W4. Similar to the content analysis

findings in Study 1, the most common reasons why respondents valued their favorite possessions were for their utilitarian (50.1%), interpersonal (46.2%), and enjoyment (43.7%) values. Again, relatively few participants valued their favorite possessions for their status signaling value (3.2%), and very few for their social comparisons value (0.4%).

Table W4: Examples and Proportions of Responses in Each Category, Study 3

Category	**Study 3: Example (*N* = 985)**	**%**
Utilitarian	It's my favorite coffee maker I can't live without it. I have to have my coffee in the morning and coffee in the afternoon. It is so special to me that I don't let anyone touch or use it besides me.	50.1%
Enjoyment	My favorite is my license plate collection. It gives me joy and entertainment. I like seeing all the different ones.	43.7%
Interpersonal	My favorite possession is a photo album my Grandmother gave me. It has a beautiful leather cover. Inside, I have photos of my family and closest friends. It is a trip down memory lane for me. I look at the photos often.	46.2%
Self-Identity	At the moment my favorite possession would have to be the piano I acquired 3 years ago. It is a black Yamaha electric piano, this possession is special to me because of the journey and opportunity it created. I have always been passionate about music and I decided to take a chance on learning piano as an adult, while very challenging it created a tangible goal that I could pursue in this hard times. It quickly has become one of my favorite purchases of all time.	16.4%
Achievement	It is my cheap copy of Finnegans Wake by Joyce that I have painstakingly annotated. It represents a lot of hours of study and contemplation.	7.3%
Financial	My most prized possession is my house. It is the one thing that I spent the most money on and the most time improving. It is the thing that I am first to mention, outside of human relationships, when speaking to others.	17.8%
Appearance	My favorite possession is my white skater dress. It is very pretty and I liked wearing it. it is meaningful because I really like all of my cloths, especially white ones.	7.7%
Status	My favorite possession is my car. It's a luxury car and shows my status. I really like it because it shows off to others. I feel good and powerful when driving.	3.2%
Brand	My favorite possession is my pink Coach bag. It was the first designer, luxury item that my mother bought me for my 19th birthday. The bag is still in good condition and I love pairing it with different clothes.	12.0%
Social Comparison	My 2012 Cheverolet Equinox is my most prized and favorite possession. It is the best car I'm ever owned. It's nicer than just	0.4%

	about any car my mother and father have ever own. […]	
Note: The categories are not mutually exclusive. Participants in both the favorite possession and control conditions recalled their favorite possessions in this study (but varied in the order in which they recalled the possession and completed the DV measures). We thus included the writing responses of both conditions in the content analysis.		

*Effect of Inequality Manipulation on Favorite Possessions Recalled***.** We tested whether our income inequality manipulation might affect the types of possessions that consumers recalled as a favorite. As in Study 1, we found little difference in the type of values being mentioned between the inequality vs. neutral cue conditions. Web-Appendix-IV Table W5 summarizes our results.

Table W5: Proportion of Responses in Each Condition across Categories, Study 3

Study 3 (N = 985)	Neutral (n=500)	Inequality (n=485)	Pearson X^2	*p*-value
Utilitarian	49.0%	51.1%	.45	.50
Enjoyment	43.0%	44.3%	.18	.67
Interpersonal	45.0%	47.4%	.58	.45
Self-Identity	17.0%	15.9%	.23	.63
Achievement	7.4%	7.2%	.01	.91
Financial	17.6%	17.9%	.02	.89
Appearance	7.0%	8.5%	.73	.39
Status	3.0%	3.5%	.20	.66
Brand	11.4%	12.6%	.32	.57
Social Comparison	.06%	.02%	.94	.33

Value of favorite possession as a moderator. Because participants in both the favorite possession condition and control condition recalled their favorite possessions (but varied in the order in which they recalled the possession and completed the DV measures), we were able to test whether the value of a favorite possession moderated the observed perceived inequality X attention to possessions interaction on material comparisons, our first mediator in the full model tested in this study. We thus conducted separate ANCOVAs on material comparisons, using inequality, attention to possessions, and each of the value category as factors, while controlling

for income and materialism. Web-Appendix-IV Table W6 summarized the results of the 3-way interactions and the simple effects of perceived inequality on social comparisons. We included income and materialism as covariates, as in the main analyses reported in the manuscript, but did not report their main effects here for exposition ease. No significant 3-way interaction was observed using any of the possession value as a second moderator.

Table W6: ANCOVAs on social comparisons, using inequality, attention to possessions, and each possession value category as factors

Utilitarian value * Attention to possessions * Inequality cue 3-way interaction					***F-statistics***	***p-value***	***η_p^2***
					.95	.329	.001
Simple effect of perceived inequality:			*Mean*	*S.E.*			
Utilitarian Value = 0	Control	Neutral (n=119)	3.56	.12	15.50	<.001	.016
		Inequality (n=136)	4.10	.11			
	Favorite	Neutral (n=132)	3.51	.11	1.53	.217	.002
		Inequality (n=105)	3.71	.13			
Utilitarian Value = 1	Control	Neutral (n=117)	3.47	.12	6.74	.010	.007
		Inequality (n=128)	3.89	.11			
	Favorite	Neutral (n=122)	3.28	.12	3.84	.050	.004
		Inequality (n=126)	3.60	.11			
Enjoyment value * Attention to possessions * Inequality cue 3-way interaction					***F-statistics***	***p-value***	***η_p^2***
					.41	.524	<.001
Simple effect of perceived inequality:			*Mean*	*S.E.*			
Enjoyment Value = 0	Control	Neutral (n=131)	3.53	.11	17.90	<.001	.018
		Inequality (n=154)	4.18	.10			
	Favorite	Neutral (n=137)	3.46	.11	3.08	.080	.003
		Inequality (n=133)	3.73	.11			
Enjoyment Value = 1	Control	Neutral (n=105)	3.49	.13	4.61	.032	.005
		Inequality (n=110)	3.86	.12			
	Favorite	Neutral (n=117)	3.33	.12	1.51	.220	.002
		Inequality (n=98)	3.54	.13			
Interpersonal value * Attention to possessions * Inequality cue 3-way interaction					***F-statistics***	***p-value***	***η_p^2***
					.001	.981	<.001
Simple effect of perceived inequality:			*Mean*	*S.E.*			
Interpersonal Value = 0	Control	Neutral (n=126)	3.56	.11	7.99	.005	.008
		Inequality (n=149)	3.99	.11			
	Favorite	Neutral (n=121)	3.47	.12	.93	.336	.001
		Inequality (n=134)	3.63	.11			
Interpersonal Value = 1	Control	Neutral (n=110)	3.46	.12	14.35	<.001	.015
		Inequality (n=115)	4.11	.12			
	Favorite	Neutral (n=133)	3.33	.11	4.336	.038	.004

		Inequality (n=97)	3.69	.13			
Self-identity value * Attention to possessions * Inequality cue 3-way interaction					***F-statistics***	***p-value***	***η_p^2***
					.50	.478	.001
Simple effect of perceived inequality:			*Mean*	*S.E.*			
Self-identity Value = 0	Control	Neutral (n=189)	3.52	.09	18.18	<.001	.018
		Inequality (n=226)	4.06	.09			
	Favorite	Neutral (n=208)	3.40	.09	2.96	.086	.003
		Inequality (n=200)	3.62	.09			
Self-identity Value = 1	Control	Neutral (n=47)	3.50	.19	3.03	.082	.003
		Inequality (n=38)	3.98	.21			
	Favorite	Neutral (n=46)	3.41	.19	2.64	.105	.003
		Inequality (n=31)	3.89	.23			
Achievement value * Attention to possessions * Inequality cue 3-way interaction					***F-statistics***	***p-value***	***η_p^2***
					.54	.463	.001
Simple effect of perceived inequality:			*Mean*	*S.E.*			
Achievement Value = 0	Control	Neutral (n=222)	3.50	.09	19.51	<.001	.020
		Inequality (n=241)	4.03	.08			
	Favorite	Neutral (n=235)	3.41	.08	3.30	.070	.003
		Inequality (n=215)	3.63	.09			
Achievement Value = 1	Control	Neutral (n=14)	3.71	.34	1.46	.227	.001
		Inequality (n=23)	4.23	.27			
	Favorite	Neutral (n=19)	3.22	.29	2.51	.114	.003
		Inequality (n=16)	3.91	.32			
Financial value * Attention to possessions * Inequality cue 3-way interaction					***F-statistics***	***p-value***	***η_p^2***
					2.20	.139	.002
Simple effect of perceived inequality:			*Mean*	*S.E.*			
Financial Value = 0	Control	Neutral (n=194)	3.48	.09	17.77	<.001	.018
		Inequality (n=218)	4.02	.09			
	Favorite	Neutral (n=217)	3.47	.09	1.34	.247	.001
		Inequality (n=181)	3.62	.10			
Financial Value = 1	Control	Neutral (n=42)	3.64	.20	3.88	.049	.004
		Inequality (n=46)	4.18	.19			
	Favorite	Neutral (n=37)	2.99	.21	8.09	.005	.008
		Inequality (n=50)	3.78	.18			
Appearance value * Attention to possessions * Inequality cue 3-way interaction					***F-statistics***	***p-value***	***η_p^2***
					.60	.441	.001
Simple effect of perceived inequality:			*Mean*	*S.E.*			
Appearance Value = 0	Control	Neutral (n=216)	3.48	.09	18.30	<.001	.018
		Inequality (n=249)	3.99	.08			
	Favorite	Neutral (n=228)	3.39	.08	4.10	.043	.004
		Inequality (n=216)	3.64	.09			
Appearance Value = 1	Control	Neutral (n=20)	3.87	.29	6.59	.009	.007
		Inequality (n=15)	5.01	.33			
	Favorite	Neutral (n=26)	3.44	.25	.93	.335	.001

		Inequality (n=15)	3.84	.33			
Status value * Attention to possessions * Inequality cue 3-way interaction					***F-statistics*** .18	***p-value*** .671	η_p^2 <.001
Simple effect of perceived inequality:			*Mean*	*S.E.*			
Status Value = 0	Control	Neutral (n=226)	3.52	.09	20.30	<.001	.020
		Inequality (n=259)	4.05	.08			
	Favorite	Neutral (n=244)	3.40	.08	3.98	.046	.004
		Inequality (n=224)	3.64	.09			
Status Value = 1	Control	Neutral (n=10)	3.35	.41	.88	.348	.001
		Inequality (n=5)	4.01	.57			
	Favorite	Neutral (n=10)	3.35	.41	1.52	.218	.002
		Inequality (n=7)	4.13	.49			
Brand value * Attention to possessions * Inequality cue 3-way interaction					***F-statistics*** .83	***p-value*** .364	η_p^2 .001
Simple effect of perceived inequality:			*Mean*	*S.E.*			
Brand Value = 0	Control	Neutral (n=206)	3.55	.09	17.70	<.001	.018
		Inequality (n=237)	4.06	.08			
	Favorite	Neutral (n=218)	3.36	.09	5.81	.016	.006
		Inequality (n=206)	3.66	.09			
Brand Value = 1	Control	Neutral (n=30)	3.26	.23	3.44	.064	.004
		Inequality (n=27)	3.89	.21			
	Favorite	Neutral (n=36)	3.63	.22	.017	.896	<.001
		Inequality (n=25)	3.58	.26			
Note: not enough participants mentioned the social comparisons value of their favorite possession (n=4) to test it in a 3-way interaction.							

We also conducted content analyses for the Replication Study to Study 1. Those results are reported in Web Appendix E, along with the other analyses conducted in that study.

WEB APPENDIX E: REPLICATION STUDY TO STUDY 1

This study replicated the interaction effect of perceived inequality and attention to possessions observed in Study 1, using a different manipulation of perceived income inequality.

Method

In exchange for monetary payment, 402 participants (American MTurkers) completed a 2 (inequality cue: inequality, neutral) by 2 (attention to possessions: favorite, baseline control) between-subjects study. We manipulated perceived income inequality using a video cue. The inequality (vs. neutral) condition watched a video about income inequality in the U.S. (vs. brain science; adapted from Kurt and Gino 2019; same as Study 3). Following the video, the favorite possession condition recalled and described their favorite possession, and *then* reported SWB (α = .93). Whereas the baseline control condition reported SWB *before* writing about their favorite possession. Participants also completed demographics (e.g., age, gender, income), an attention check, and a materialism scale measure (α = .89). Excluding those who failed the attention check (n = 10) resulted in a final N = 392 (60.7% female; M_{age} = 37.8, SD_{age} = 12.87).

Results & Discussion

Manipulation check. The perceived inequality manipulation was successful ($M_{\text{inequality}}$ = 6.31, $SD_{\text{inequality}}$ = 1.31; M_{neutral} = 5.51, SD_{neutral} = 1.29; $F(1, 390) = 36.85$, $p < .001$, $\eta_p^2 = .09$).

SWB. An ANCOVA on SWB, with inequality cue and attention to possessions as factors, and income and materialism as covariates, yielded main effects of income ($F(1, 386) = 58.69$, $p < .001$, $\eta_p^2 = .13$), materialism ($F(1, 386) = 42.12$, $p < .001$, $\eta_p^2 = .10$), inequality cue ($F(1, 386) = 3.24$, $p = .073$, $\eta_p^2 = .01$), and attention to possessions ($F(1, 386) = 3.08$, $p = .080$, $\eta_p^2 = .01$), and a marginally significant interaction ($F(1, 386) = 3.57$, $p = .060$, $\eta_p^2 = .01$). Simple effect analysis found that, at baseline control, those cued by the inequality (vs. neutral) video reported lower SWB ($M_{\text{inequality}}$ = 3.90 vs. M_{neutral} = 4.43; $F(1, 386) = 6.82$, p =.009, $\eta_p^2 = .02$), consistent

with prior evidence that perceived income inequality reduces SWB (Oshio and Urakawa 2014). Per H1, this negative effect was eliminated in the favorite possession condition ($M_{inequality}$ = 4.43 vs. $M_{neutral}$ = 4.41, $F(1, 386) = .004$, $p = .951$, $\eta_p^2 < .001$).

Content analysis. We conducted a content analysis on the favorite possession writing responses, using the same coding scheme as in Studies 1 and 3. As in those studies, the most common values ascribed to a favorite possession were enjoyment (44.9%), utilitarian (39.8%), and interpersonal (39.5) values. Very few participants valued a favorite possession for its status signaling value (0.8%) or social comparison value (0.8%). As before, we found little difference in the types of values being mentioned between the inequality vs. neutral cue conditions. The only category that showed a marginally significant difference was mentioning of brands (p = .07). Respondents in the neutral condition in fact mentioned the brands of their favorite possessions more often than the inequality condition. Tables W7 and W8 summarize our results.

Table W7: Examples and Proportions of Responses in Each Category, Replication Study

Category	**Replication Study, Example (*N* = 392)**	**%**
Utilitarian	My favorite possession is my computer. I use to for school, watching videos, and playing games. This is important to me because I purchased it with my own money. It is far from a good computer, it might be decent but not good. However, it is mine and I worked hard to get this computer so I can better my life by going to school online.	39.8%
Enjoyment	My favorite item is my Kindle reader. It looks like real paper on screen and when it gets dark I can turn on the backlight. I see my book reader as an escape. When I'm frustrated, or restless, I can pick from an endless amount of books and get lost.	44.9%
Interpersonal	My favorite possession is my Native American collection I have. It means a lot to me, because it comes from a lady I took care of, but later passed away do to heart conditions. The reason it means so much to me is because I tried to revive her when I found her on the bedroom floor of her apartment, but was unable to save her. It was determined that her heart just gave out from previous heart attacks. So I value as it is close to my heart.	39.5%
Self-identity	My favorite possession is my Nintendo 64. I've had for almost all my 23 years of life and its brought me insurmountable joy. Using it	17.6%

	allows me to connect with my inner child and appreciate video games of the past.	
Achievement	My favorite possession is my house. I have always wanted a large and nice house, since I was a child. To me, having a nice house meant that you were successful in life. My home is a custom build that my husband and I purchased 3 years ago. It is a brick home with nice furnishings and modern features. We work hard to pay for it, but it is my pride. It is in a gated neighborhood and in a setting that is away from the city.	8.7%
Financial	My favorite possession would be my sneaker collection. I have collected sneakers since I was a young kid and have about 500 shoes. These items are important to me because it reminds me of times as a young kid. Also this collection is worth a lot of money, so when I do decide to sell them it will be rewarding from a financial perspective	7.9%
Appearance	My favorite possession is my favorite shirt. It's simple, looks great, and makes me feel good about myself. I don't need a lot and like to keep things simple. So, not only is this shirt representative of me, but it's also practical and useful.	8.2%
Status	My favorite possession is my designer handbag. It was a gift from my husband during our anniversary. I feel rich when I use it.	0.8%
Branded	My favorite possession is my HP laptop which I use for both gaming and work. I feel very happy when I think about it since I'm very attached to it and sometimes I can't wait to get home and be able to use it.	22.2%
Social Comparison	I love my Audi S4. It's a status symbol and has more speed and luxury than 95 percent of other cars on the road. I think about my education and contributions to society that allowed me to work and earn this possession.	0.8%

Table W8: Proportion of Responses in Each Condition across Categories, Replication Study

Replication Study (N = 392)	Neutral (n=192)	Inequality (n=200)	Pearson X^2	*p*-value
Utilitarian	43%	37%	1.85	.17
Enjoyment	45%	45%	<.001	.97
Interpersonal	39%	40%	.04	.85
Identity	19%	17%	.34	.56
Achievement	9%	9%	.02	.90
Finance	9%	7%	.46	.50
Appearance	8%	8%	.02	.90
Status	1%	1%	.30	.59
Branded	26%	19%	3.23	.07
Social comparison	1%	0.5%	.38	.54

In sum, the findings of this study replicated Study 1. While perceived income inequality reduced SWB in the baseline control condition, this negative effect was mitigated when participants were promoted to recall their favorite possessions. Based on the content analysis, the values ascribed to the possession recalled as a favorite did not differ across perceived inequality conditions, and consumers tend not to value their favorite possessions for their financial, status signaling or social comparison values.

WEB APPENDIX F: WRITING SAMPLE, WRITING TIME, AND TASK DIFFICULTY IN STUDIES 2 & 4

	Examples	***Writing time***	***Task difficulty***
Study 2		*Mean* (*SD*)	*Mean* (*SD*)
Favorite possession	My favorite possession is my Garmin running watch. When I look at it I think of all the miles I've logged with it, and how much more running I will do with it. I associate it being outside, running, and healthy activities. I use it for all sorts of things, including GPS mileage, a step counter, and a music player. I love it.	122.81[a] (98.06)	2.33[a] (1.50)
All possessions	When I think about all my possessions, I think about all the clothes in my closet, everything under my bed (in storage), and even my car. I think about how lucky I feel to have these things; I know I am not rich, but I should still be appreciative for what I do have, because I know it is better than a lot of people in the world. I also feel that I should probably donate more of my possessions to those who are less fortunate.	121.88[a] (95.56)	2.49[a] (1.36)
Study 4		*Mean* (*SD*)	*Mean* (*SD*)
Favorite clothing item	My favourite clothing item is my Liverpool FC Football Shirt. I purchased it myself a few months ago before the new football season started. It is a darker shade of red this season. It also has the new Liverpool badge on for this season which is to mark 15 years.	171.46[a] (774.96)	2.49[a] (1.40)
All clothing items	I have just discovered the shop Monsoon and enjoy buying clothes from there. I have a blue large check top that I have recently purchased from there that looks good quality and feels good quality. I also bought 2 short sleeved summer jumpers from there, a light orange color which just fit and feel so nice. I have also purchased 2 long sleeved jumpers from there and are very good quality and soft and feel lovely on.	159.66[a] (269.39)	3.35[b] (1.66)

Conditions with different superscript letters *across rows* are different at a $p < .05$ level. Controlling for writing task difficulty as a covariate in study 4, the perceived inequality X attention to possessions interaction became marginal, and the Gini X attention to possessions interaction remained significant.

APPENDIX G: ANALYSES OF RELATIVE PRIVILEGE IN STUDIES 2 & 3

We theorized that attending to one's favorite possessions minimizes feelings of relative deprivation, as opposed to increasing feelings of relative privilege. Nonetheless, we tested our effects on the relative *privilege* subscale in both Studies 2 and 3.

Study 2

Keeping the baseline control condition as benchmark comparison, we regressed relative privilege on favorite possession (yes = 1, otherwise = 0), all possessions (yes = 1, otherwise = 0), perceived inequality (standardized), inequality X favorite, and inequality X all, with income and materialism as covariates. Results of the analysis yielded only main effects of income (β = -.42, *SE* = .06, $t(563) = -6.83$, $p < .001$) and materialism (β = .17, *SE* = .06, $t(563) = 2.85$, $p = .01$). We did not observe the key inequality X favorite possession interaction on relative privilege (β = -.05, *SE* = .15, $t(563) = -.36$, $p = .72$), as we did on relative deprivation and SWB. We also did not observe an inequality X all possessions interaction (β = -.001, *SE* = .15, $t(563) = -.01$, $p = .99$). These results speak against the idea that attention to favorite possessions mitigates the negative effect of SWB because it makes consumers feel more privileged than others.

Study 3

We tested the indirect effect of inequality cue X attention to possession on relative privilege, mediated by material comparisons. A moderated mediation analysis (PROCESS Model 7) was conducted using perceived inequality as the IV, attention to possession as the moderator, material comparisons as the mediator, and relative privilege as the DV, while controlling for income and materialism. The moderated mediation was non-significant (bootstrapped sample =

5000, 90% CI = [-.022, .002]). Moreover, an ANCOVA on relative privilege also did not find a significant effect of perceived inequality X attention to possessions ($F(1, 979) = .67$, $p = .42$, $\eta_p^2 = .001$), but only main effects of attention to possessions ($F(1, 979) = 6.98$, $p = .008$, $\eta_p^2 = .007$) and perceived inequality ($F(1, 979) = 5.94$, $p = .015$, $\eta_p^2 = .006$). Thus, we found no support for a direct or indirect effect of inequality cue X attention to possession on relative privilege. Finally, we tested our full conceptual model (PROCESS Model 83) with inequality as the IV, attention to possessions as the moderator, material comparisons as first mediator, relative privilege as second mediator, and SWB as the DV, while controlling for income and materialism. The model yielded no significant moderated serial mediation (bootstrapped sample = 5000, 90% CI = [-.011, .001]). Thus, unlike relative deprivation (reported in the main text), relative privilege did not serially mediate the indirect effect of perceived inequality X attention to possessions on SWB.

WEB APPENDIX H: STIMULI POST-TEST AND PRE-TEST IN STUDIES 2 & 3

1. Post-test in Study 2: effect of possession conditions on positive and negative affects

(Watson, Clark, and Tellegen, 1988)

N = 100 American MTurkers	Favorite Possession	All Possessions
(5-point scale)	***Mean* (*SD*)**	***Mean* (*SD*)**
Positive affect	3.19 [a] (.95)	3.51 [a] (.78)
Negative affect	1.61 [a] (.90)	1.70 [a] (.96)
5-point scale. Conditions with different superscript letters *across columns* are different at a $p < .05$ level.		

2. Pre-test of inequality vs. neutral cue manipulation (short videos) in Study 3 & Replication Study to Study 1

N = 147 American MTurkers	U.S. income inequality	Brain science
(all 7-point scales)	***Mean* (*SD*)**	***Mean* (*SD*)**
Income inequality in *your* society	6.01 [a] (1.45)	5.55 [b] (1.32)
Ease of social mobility	3.11 [a] (1.72)	3.44 [a] (1.56)
Optimism about the economy	3.93 [a] (1.89)	3.79 [a] (1.45)
Enjoyability (i.e., engaging, informative, enjoyable; $\alpha = .85$)	5.72 [a] (1.34)	5.68 [a] (1.10)
Difficult to understand	2.59[a] (1.81)	3.09[a] (1.63)
Video length	6:23	5:16
Conditions with different superscript letters *across columns* are different at a $p < .05$ level. We tested multiple videos in the pre-test and selected the brain science video as the control condition based on these results.		

WEB APPENDIX I: RESULTS OF ANALYSIS USING GINI INDEX PUBLISHED BY THE WORLD BANK, STUDY 4, FOOTNOTE 7

Mixed-effect ML regression			Number of observations = 1370		
Group variable: CountryCode			Number of groups = 8		
DV = SWB	***β***	***S.E.***	***z*-statistics**	***p*-value**	***95% CI***
Attention to possessions (fav = 1, all = -1)	.003	.03	.10	.919	[-.061, .067]
std_Gini	.14	.19	.75	.445	[-.225, .502]
Attention to possessions * std_Gini	.06	.03	1.88	.060	[-.003, .130]
std_perceived_inequality	-.05	.04	-1.17	.244	[-.131, -.033]
Attention to possessions * std_perceived_inequality	.07	.03	2.07	.039	[.004, .137]
Constant	4.82	.18	26.11	<.001	[4.451, 5.173]
Simple effect of perceived inequality, by attention to possessions conditions					
All possessions	-.12	.05	-2.19	.028	[-.225, -.013]
Favorite possession	.02	.05	.40	.689	[-.084, .126]
Simple effect of country-level Gini, by attention to possessions conditions					
All possessions	.07	.19	.40	.692	[-.295, .444]
Favorite possession	.20	.19	1.07	.283	[-.167, .572]

WEB APPENDIX J: HASHTAG (#s) SELECTION PROCEDURE, STUDY 5

To generate the list of hashtags to scrape, we followed a multi-stage process. First, we generated an initial list of hashtags based on our theorizing and multiple searches on different social media platforms. These hashtags were related to favorite possessions (the target group) and also to consumption and non-possession favorites (the comparison group). We designed the comparison group to be conservative, such that the hashtags in the comparison group would not specifically be about favorite possessions, but about related concepts, such as the general ideas of consumption or favorites.

Initial list of possible hashtags:

Target Group	**Comparison Group**	
#favthing	#favorite	#specialmemories
#favoritething	#favorites	#specialgift
#favoriteitem	#fav	#familyheirloom
#favoritepossession	#myfav	#heirloomjewelry
#favoritethings	#myfave	#heirloom
#favoriteitems	#favoritecolor	#wardrobe
#favoritepossessions	#favoriteholiday	#fashion
#favoritetoy	#favoritepeople	#specialsales
#favoriteshirt	#favoriteanimal	#specialprice
#favoritedress	#favoritetimeofyear	#jewelry

To test and possibly refine this list, we conducted a qualitative pilot study to better understand the types of hashtags consumers use when posting about their favorite possessions. Respondents (N = 22 MTurkers) were given the following instruction:

Qualitative pilot study

Imagine that you are on Instagram. You decide to post a photo of your favorite possession on your Instagram page. (A "favorite possession" here refers to a material object that you own and consider as your favorite.)
You write a caption for the photo of your favorite possession and, in the caption, you include some hashtags (#). What hashtags will you include for your post of a favorite possession?
Please list all the hashtags you will include for this post: _____

The data from this qualitative pilot study supported the hashtags in the target group, when people post their favorite possessions on Instagram (e.g., #favoritepossession; #favoritething). We thus included different variations of these two key hashtags in the target group.

In addition, respondents in the pilot study reported hashtags that are related to specific products

(e.g., #guitar, #ps5, #watch), related to general positivity (e.g., #love, #new, #perfect), and related to the general idea of favorites (e.g., #favorite, #myfav). Specific product hashtags suggest that specific product categories are often mentioned when consumers post their favorite possessions. However, because these hashtags can also be mentioned broadly in posts of non-favorite products or in advertising, they are non-specific and we did not include them in the target group. Instead, we used Instagram's search function to search for common hashtags that consist of both "favorite" and the product category (i.e., #favorite[product]) to be included in the target group.

Similarly, the hashtags related to general positivity and to general favorites can be broadly applied to other types of posts unrelated to favorite possessions. Thus, we did not include them in the target group. Instead, we included the hashtags related to general favorites in the comparison group to serve as a conservative comparison. Finally, we also included popular hashtags (i.e., all but one had over 100,000 posts) related to material consumption and purchase in the comparison group. Below is our final list of hashtags selected to be extracted from Instagram:

Hashtags about favorite possession (target group):

#favthing	#favoritepossessions	#favoritebook
#favoritething	#favoritetoy	#favoritebooks
#favoritepossession	#favoriteshirt	#favoritehandmade
#favoritethings	#favoritedress	

Hashtags about general consumption or non-possession favorites (comparison group):

#fav	#favoriteanimal	#specialsales
#favorite	#favoritecolor	#specialprice
#favorites	#favoriteholiday	#jewelry
#myfav	#favoritepeople	#luxury
#myfave	#fashion	#expensive
#favourite	#wardrobe	
#favourites	#swag	

REFERENCES TO WEB APPENDIX

Abe, Jo Ann A. (2011), "Positive emotions, emotional intelligence, and successful experiential learning," *Personality and Individual Differences*, *51*(7), 817-822.

Bauer, Monika A., James EB Wilkie, Jung K. Kim, and Galen V. Bodenhausen (2012), "Cuing Consumerism: Situational Materialism Undermines Personal and Social Well-Being," *Psychological Science*, 23, (5), 517-523.

Callan, Mitchell J., John H. Ellard, N. Will Shead, and David C. Hodgins (2008), "Gambling as a Search for Justice: Examining The Role of Personal Relative Deprivation in Gambling Urges and Gambling Behavior," *Personality and Social Psychology Bulletin*, 34, (11), 1514-1529.

Carter, Travis J. and Thomas Gilovich (2010), "The Relative Relativity of Material and Experiential Purchases," *Journal of Personality and Social Psychology*, 98, (1), 146-159.

Diener, Ed., Robert A. Emmons, Randy J. Larsen, and Sharon Griffin (1985), "The Satisfaction with Life Scale," *Journal of Personality Assessment*, 49 (1), 71-75.

Dittmar, Helga, Rod Bond, Megan Hurst, and Tim Kasser (2014), "The Relationship Between Materialism and Personal Wellbeing: A Meta-Analysis," *Journal of Personality and Social Psychology*, 107 (5), 879-924.

Epp, Amber M., and Linda L. Price (2009), "The Storied Life of Singularized Objects: Forces of Agency and Network Transformation," *Journal of Consumer Research*, 36 (5), 820-837.

Goranson, Amelia, Ryan S. Ritter, Adam Waytz, Michael I. Norton, and Kurt Gray (2017). Dying is unexpectedly positive. *Psychological Science*, *28*(7), 988-999.

Heatherton, Todd F., and Janet Polivy (1991), "Development and validation of a scale for measuring state self-esteem," *Journal of Personality and Social Psychology* 60, (6), 895.

Howell, Ryan T. and Graham Hill (2009), "The Mediators of Experiential Purchases: Determining the Impact of Psychological Needs Satisfaction and Social Comparison," *The Journal of Positive Psychology*, 4 (6), 511-522.

Jetten, Jolanda, Frank Mols, and Tom Postmes (2015), "Relative deprivation and relative wealth enhances anti-immigrant sentiments: The v-curve re-examined," *PloS One*, 10(10): e0139156.

Kopytoff, Igor (1986), "The Cultural Biography of Things: Commoditization as Process," *The Social Life of Things: Commodities in Cultural Perspective*, 68, 70-73.

Kurt, Didem and Francesca Gino (2019), "I Deserve Better: Income Inequality and Consumer Preference for Private Labels versus National Brands", conference presentation, *Society for Consumer Psychology 2019 Annual Conference*, Savannah, GA, U.S.A.

Oshio, Takashi and Kunio Urakawa (2014), "The Association between Perceived Income Inequality and SWB: Evidence from a Social Survey in Japan," *Social Indicators Research*, 116 (3), 755-770.

Pennebaker, James W., Ryan L. Boyd, Kayla Jordan, and Kate Blackburn (2015). *The development and psychometric properties of LIWC2015*.

Price, Linda L., Eric J. Arnould, and Carolyn Folkman Curasi (2000), "Older Consumers' Disposition of Special Possessions," *Journal of Consumer Research*, 27 (2), 179-201.

Richins, Marsha L. (1994), "Valuing Things: The Public and Private Meanings of Possessions," *Journal of Consumer Research*, 21 (3), 504-521.

Richins, Marsha L. (2004), "The material values scale: Measurement properties and development of a short form," *Journal of Consumer Research*, 31(1), 209-219.

Ryan, Lisa, and Suzanne Dziurawiec (2001), "Materialism and Its Relationship to Life

Satisfaction," *Social Indicators Research*, 55 (2), 185-197.

Tang, Chuanyi, and Lin Guo (2015). Digging for gold with a simple tool: Validating text mining in studying electronic word-of-mouth (eWOM) communication. *Marketing Letters*, 26(1), 67-80.

Tausczik, Yla R., and James W. Pennebaker (2010). The psychological meaning of words: LIWC and computerized text analysis methods. *Journal of language and social psychology*, *29*(1), 24-54.

Walasek, Lukasz and Gordon D. Brown (2015), "Income Inequality and Status Seeking: Searching for Positional Goods in Unequal US States", *Psychological Science*, 26(4), 527-533.

Walasek, Lukasz, Sudeep Bhatia, and Gordon D. Brown (2018), "Positional Goods and the Social Rank Hypothesis: Income Inequality Affects Online Chatter About High-and Low-Status Brands on Twitter," *Journal of Consumer Psychology*, 28, (1), 138-148.

Zhang, Shi, and Arthur B. Markman (2002), "Processing product unique features: Alignability and involvement in preference construction," *Journal of Consumer Psychology*, 11 (1), 13-27.

Zhang, Shi, and Gavan J. Fitzsimons (1999), "Choice-Process Satisfaction: The Influence of Attribute Alignability and Option Limitation," *Organizational Behavior and Human Decision Processes*, 77 (3), 192-214.