Leapfrogging over the Joneses:

Effects of Inequality on Conspicuous and Inconspicuous Consumption

NAILYA ORDABAYEVA

PIERRE CHANDON *

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* Nailya Ordabayeva is a Ph.D. candidate (phone: +33 (0)1 60 72 91 82, fax: +33 (0)1 60 74 55 00, email: nailya.ordabayeva@insead.edu) and Pierre Chandon is Associate Professor of Marketing (phone: +33 (0)1 60 72 49 87, fax: +33 (0)1 60 74 61 84, email: pierre.chandon@insead.edu) at INSEAD, Boulevard de Constance, 77305 Fontainebleau, France.
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Politicians and economists have often argued that reducing inequality would lead the least well-off consumers to save more and consume less; but this hypothesis and its causal mechanism have never been studied experimentally. In five experiments, we find that reducing the inequality of the distribution of income or of possessions increases the satisfaction of people in the lowest tier of the distribution. However, lower inequality also implies that low-tier consumers who choose to consume gain more ranks in the distribution because they "leapfrog" over the higher number of people clustered in the middle tiers. Therefore, we find that reducing inequality reduces consumption when people focus on their own endowment (for inconspicuous consumption, when social indifference goals are primed, and in cooperative environments). However, reducing inequality *increases* consumption, when people focus on gaining social rank (for conspicuous consumption, when social competition goals are primed, and in competitive environments).

Keywords: Status, conspicuous consumption, inequality, social comparison, symbolic products

Thorstein Veblen (e.g., Veblen 1899) first coined the term ‘conspicuous consumption’ to describe the acquisition and display of possessions with the intention of gaining social status. It is well established that, compared to richer households, poorer households save a smaller fraction of their income and spend more on conspicuous and inconspicuous consumption (Bagwell and Bernheim 1996; Banerjee and Duflo 2007; Bloch 1995; Duesenberry 1949; Moav and Neeman 2008). In the US, for example, the savings rate of households in the lowest income quintile is only 1% (vs. 24% for the highest quintile) and a large portion of their consumption can be labeled as conspicuous (Dynan, Skinner, and Zeldes 2004). For example, 62% of Americans defined as poor by the US Census Bureau have cable or satellite TV and 50% have two or more color television sets (Rector 2007). Despite evidence that low savings and high consumption, especially conspicuous consumption, hurt the welfare of low-income households most (Bagwell and Bernheim 1996; Frank 2005; Knell 1999), this pattern has intensified over the last twenty years because of growing income and consumption inequality (Christen and Morgan 2005; Zhu 2007).

To explain why inequality decreases the savings and increases the consumption—especially conspicuous consumption—of the least well-off consumers, most researchers invoke social comparison theory (Christen and Morgan 2005; Drèze and Nunes 2009; Frank 1985a). In essence, the argument holds that consumers at the bottom of the distribution try to reduce their dissatisfaction with their current endowment by reducing the gap with the level of consumption of the majority of people (Dupor and Liu 2003; Elliott and Leonard 2004; Elster 1991; Hamilton and Catterall 2006; Solnick and Hemenway 1998). In short, low-tier consumers try to “keep up with the Joneses”. While there is little debate that rising inequality and increases in overall consumption levels are linked, at least four important issues remain unanswered. First, many politicians and economists have recommended that governments reduce inequality by either imposing a progressive consumption tax (which would penalize high levels of consumption but

not high levels of savings) or a luxury tax (which would specifically penalize the consumption of status-conferring symbolic goods) (Becker, Murphy, and Werning 2005; Frank 1985b, 2005). Yet although a few theoretical models have examined these ideas (Duncan and Sabirianova Peter 2008; Hopkins and Kornienko 2004), there is to date no direct experimental evidence that reducing inequality would indeed increase savings and reduce consumption. Second, existing studies have looked at the effects of inequality on the overall level of consumption rather than on the decisions of consumers at the bottom of the distribution, who are most at risk of overspending. Third, the empirical analyses linking inequality and consumption have not distinguished between conspicuous (status-related) and inconspicuous (status-neutral) consumption. Finally, these studies have relied on a simplified model of social comparison effects which focuses on the role of the consumer's satisfaction with her current position in the distribution (and the gap with the average endowment) and neglects the role of the position *gains* provided by consumption (and the importance of rank gains).

The main objective of this research is to test in an experimental setting the prediction that reducing inequality would decrease conspicuous and inconspicuous consumption among consumers at the bottom of the distribution. To achieve this goal, we first review the literature on inequality in economics, social psychology, and consumer research. Based on this review, we adopt a working definition of status as one's relative rank in a social group, where rank can be broadly construed and unobservable (e.g., income) or more narrowly construed and observable (e.g., endowment with status-granting symbolic possessions) (Drèze and Nunes 2009). Because endowment is often only observed at an ordinal level (e.g., whether one belongs to the 'silver', 'gold', or 'platinum' tier of an airline frequent flyer program), we measure the equality of the distribution by looking at the proportion of people in the middle and extreme tiers. For example, inequality is low when people are clustered in the middle tiers and high when people are

uniformly distributed across all tiers. Using these definitions, we build a framework of the effect of inequality on the preference of people in the lowest status tier for conspicuous or inconspicuous consumption over savings. This framework clarifies the role of the endowment gap and of the potential rank gains provided by consumption. Its key prediction is that reducing inequality actually increases consumption when the least well-off people care about social rank, i.e., when they are purchasing conspicuous (vs. inconspicuous) products, when social competition (vs. social indifference) goals are activated, and in a competitive (vs. cooperative) social environment. In the general discussion, we review the implications of these findings for consumer research on status effects and for the debate on the value of consumption and luxury taxes as a means to improve the welfare of people at the bottom of the pyramid.

A FRAMEWORK OF THE EFFECTS OF INEQUALITY ON CONSUMPTION

There is a large body of research on social influences on consumption and on the role of status in economics, social psychology, and consumer research (Amaldoss and Jain 2005a, b; Drèze and Nunes 2009; Frank 1985a; Griskevicius et al. 2007; Mandel, Petrova, and Cialdini 2006; Richins 1994; Rucker and Galinsky 2008). In this section we draw on these studies to build a framework of the relationship between the inequality of the distribution of endowment within the population and the decisions made by those at the bottom of the distribution to save or to engage in conspicuous or inconspicuous consumption. We first review existing studies, which focus on the role of social envy and the dissatisfaction caused by the gap between one's own endowment and the endowment of others, and which suggest that reducing inequality should reduce consumption. We then present some new hypotheses related to the effects of inequality on the social rank gains provided by consumption when it is conspicuous.

Keeping up with the Joneses: The effects of the endowment gap

According to social comparison theory, people have an inherent tendency to compare themselves to others to judge how well they are doing (Festinger 1954b). Although people engage in both upward (unfavorable) and downward (favorable) comparisons, upward comparisons occur faster (Wood 1989) and arise by default for self-evaluation purposes (Collins 1996). Social comparison research has also shown that people tend to compare themselves to people who are slightly better off, rather than those who have vastly different status (Brown et al. 1992; Festinger 1954a; Mandel et al. 2006; Wood 1989). Upward comparisons lead to envy (Bös and Tillmann 1985; Clark and Oswald 1998; Dupor and Liu 2003; Elster 1991; Feinberg, Krishna, and Zhang 2002; McCormick 1983). This, in turn, motivates people with lower levels of endowment to "keep up with the Joneses" by engaging in conspicuous consumption. That is, by acquiring the possessions that better-off people have and displaying them publicly, people with lower levels of endowment eliminate the feelings of inferiority created by negative comparisons with people consuming superior goods (Bagwell and Bernheim 1996; Christen and Morgan 2005; Duesenberry 1949; Moav and Neeman 2008).

A related stream of research focuses on the role of satisfaction (as opposed to envy) and of learning from the behavior of others (as opposed to competing with them). In essence, the argument here holds that people use the endowment distribution as a reference to evaluate their existing endowment (Frank 1989, 2007; Hsee, Rottenstreich, and Xiao 2005). Specifically, people in the lowest tier of the distribution may infer from a very unequal distribution that greater consumption would lead to greater personal happiness (Frank 2007). Conversely, they may infer from a more equal distribution that they have an acceptable endowment level since it is shared by

many other people. This “scaling” argument therefore predicts that people will be more satisfied with their current endowment in a more equal distribution than in a more unequal distribution. The scaling argument does not assume that people are motivated by envy or by social competition and hence applies to both conspicuous and inconspicuous consumption.

Taken together, these streams of research predict that reducing inequality should reduce the spending of low-tier consumers on both conspicuous and inconspicuous consumption because it increases their proximity to the majority of people in the distribution. To illustrate how the endowment gap mediates the effects of inequality of the endowment distribution on consumption, imagine a consumer deciding whether to buy a new handbag to attend her 10-year high school reunion or to keep her old cheap unbranded bag (note that this example could easily be applied to masculine fashion accessories, such as watches). Figure 1 shows two hypothetical endowment distributions with different levels of inequality. Figure 1 shows the proportion of people in the relevant social context (i.e., other women attending the reunion) in each of five endowment categories (e.g., from tier 5 consisting of unbranded handbags to tier 1 consisting of limited-edition bags from prestige luxury brands). In the high inequality distribution, people are roughly uniformly spread across all tiers (10% of people are in tier 5, 20% in tier 4, 20% in tier 3, 25% in tier 2, and 25% in tier 1). In the low inequality distribution, there are fewer people in the top tiers and more people in the middle tiers (10% of people are in tier 5, 40% in tier 4, 20% in tier 3, 20% in tier 2, and 10% in tier 1). As a result, the concentration of people is lower in the high inequality distribution (Herfindahl = .22) than in the low inequality distribution (Herfindahl = .26). Note that we use the Herfindahl index to measure inequality because it can be applied to ordinal data whereas other measures such as the GINI index require measuring endowment on an interval scale.

----Insert Figure 1 about here----

In essence, the low inequality distribution replicates the effects of a progressive tax on high consumption or of a luxury tax which would both lead people to buy the fourth tier bags instead of the second tier or first (top) tier bags. The difference between high and low inequality distributions in Figure 1 also mirrors the growing inequality of the US income distribution over the last 30 years. Note that the range (five tiers) and the proportion of people in the fifth (bottom) tier (10%) are identical in the two distributions shown in Figure 1 as well as in all the distributions used in the experimental studies. It is important to keep the range and the percentile position of the target consumer constant because, according to range-frequency theory (Parducci 1965), both factors could influence endowment evaluation and hence consumption decisions, regardless of the inequality of the distribution. In the general discussion, we consider the effects of redistribution policies which shrink the range of the distribution and increase the endowment of the bottom tier instead of simply changing the inequality of the distribution.

Leapfrogging over the Joneses: The effects of social rank gains

We propose that conspicuous consumption is not only influenced by the size of the endowment gap, but also by the size of the rank order improvement (and hence the status gain) that it will provide. Because they assume that the endowment gap is the key motivator of consumption, both social comparison and the scaling and learning arguments suggest that the motivation to consume should disappear once the endowment gap is eliminated (McCormick 1983). In contrast, we agree with Veblen that consumption can be driven by the “desire of everyone to excel everyone else in the accumulation of goods” (1899, 39). We hypothesize that

people are not merely satisfied to be on a par with their peers but that when they care about status they look for ways to get ahead of others. In other words, people who seek to reduce social envy or dissatisfaction with their endowment try to “keep up with the Joneses”; people who seek status try to “leapfrog over as many Joneses as possible.” Hence, they take into consideration the gain in social rank that they can achieve through consumption and not simply the reduction in the endowment gap.

Taking into account rank gains, and not just the endowment gap, leads to markedly different predictions because reducing inequality not only narrows the endowment gap, but it also increases the status returns on conspicuous consumption for people who are at the bottom of the distribution. To understand the intuition behind this hypothesis, imagine being among the shortest persons in a group, caring about your height rank because height confers status, and considering whether or not to buy high-heel shoes. If height inequality is high, there will be many very tall people in your reference group, so even shoes with the highest heels will only give you a limited gain in height rank (and hence in status). If height inequality is low, however, many other people will be of average height or slightly taller than you, in which case buying high-heel shoes will allow you to leapfrog over this large group and be among the tallest people in your group.

We can illustrate the effects of status gain by returning to the two endowment distributions shown in Figure 1. If a fifth (bottom) tier consumer decides to buy a third (middle) tier bag, she will get ahead of all the people in tiers 5 and 4. Because tier 4 comprises 40% of the people in the low inequality condition but only 20% of people in the high inequality condition, the same conspicuous spending will lead to twice the rank gain when inequality is low than when it is high. In other words, conspicuous consumption will allow a bottom tier person to join the top 50% of consumers in the low inequality condition and only the top 70% of consumers in the high inequality condition. More generally, when inequality is high, conspicuous consumption will

provide little or no rank gain for low-tier consumers. However, when equality is high, conspicuous consumption will provide bigger rank gains. In the extreme case of perfect equality, even the smallest amount of conspicuous consumption will guarantee the top status position.

Summary and outline of experiments

To summarize, we expect that reducing the inequality of the endowment distribution reduces envy and increases satisfaction among people in the lowest tier of the distribution because it narrows the distance between their endowment and the endowment of the majority of people. We also expect that reducing inequality increases the social rank gains provided by conspicuous consumption for people at the bottom of the distribution. Therefore we expect that reducing inequality reduces consumption when people do not seek status but increases consumption when people seek status.

We test these hypotheses in five experiments. In study 1, we test our key prediction about the effects of inequality on social envy and conspicuous spending decisions. Study 2 allows us to test this prediction in the context of an ultimatum game, in which participants choose to spend their own money to acquire status, which in turn influences their economic payoff. In study 3, we examine the effects of inequality on conspicuous as well as on inconspicuous consumption and further examine the process underlying these effects by directly measuring perceived rank gains and satisfaction. We test the effects of inequality when people are not motivated to acquire status by priming social competition or social indifference goals in study 4 and by manipulating the competitiveness or cooperativeness of the social environment in study 5. Studies 4 and 5 also allow us to test the effects of the inequality of income distribution, and not simply of the inequality of the endowment with specific products.

STUDY 1: EFFECTS OF ENDOWMENT INEQUALITY ON SOCIAL ENVY AND CONSPICUOUS CONSUMPTION

Method

We recruited 73 people on the streets of a large city and asked them to participate in a study about everyday decisions of home owners in exchange for a meal voucher. The participants read a neighborhood newsletter describing the efforts of a local association to improve the appearance of the neighborhood. The newsletter had a pie chart showing the number of houses in the neighborhood with flower gardens. We used this scenario because a pre-test had indicated that the appearance of one's garden is a source of social status in middle-class neighborhoods.

The distribution had five categories: no flowers; one or two flower bushes; three or four flower bushes; five or six flower bushes; and seven or more flower bushes. To manipulate inequality, the pie charts either showed the high inequality distribution displayed in Figure 1 (in which the proportion of houses in each tier was 10%, 20%, 20%, 25%, and 25%) or the low inequality distribution (respectively 10%, 40%, 20%, 20%, and 10%). The inequality manipulation therefore reproduced the effects of a luxury tax on the number of rose bushes, which would reduce the number of households in the highest tiers and increase the number of households in the middle tiers. Participants were then asked to rate whether, after reading the newsletter, a homeowner with no flowers in her garden would spend €45 to buy three flower bushes or whether she would choose to save this amount of money (on a nine-point scale where 1 = "definitely save" and 9 = "definitely spend"). Participants were also asked to rate how envious

this person would be of her neighbors' gardens (from 1 = "not at all" to 9 = "very much"). The order of the two questions was counterbalanced across participants.

Results and discussion

We first conducted a manipulation check to verify that participants understood the impact of the distribution manipulation on the potential status gains. In a pre-test, we asked 45 people similar to those who participated in study 1 to rate the extent to which buying the flowers would allow the person in the lowest tier described in the scenario to improve her social rank (on a nine-point scale, where 1 = "not at all" to 9 = "very much"). As expected, the gain in social rank, and thus in status, was rated higher in the low inequality distribution condition ($M = 6.7$) than in the high inequality distribution condition ($M = 3.7$, $F(1, 43) = 17.6$, $p < .01$), indicating that the inequality manipulation was successful.

To test our main predictions, we conducted two separate ANOVA's on the preference for spending over saving and on social envy with distribution inequality as the between-subjects factor. As shown in Figure 2, envy was significantly *lower* in the low inequality condition ($M = 4.7$) than in the high inequality condition ($M = 5.9$, $F(1, 69) = 3.96$, $p < .05$). In contrast, and consistent with our prediction, the preference for conspicuous consumption over savings was significantly *higher* in the low inequality condition ($M = 6.9$) than in the high inequality condition ($M = 5.8$, $F(1, 69) = 3.9$, $p < .05$).

----Insert Figure 2 about here----

The results of study 1 support our hypothesis that reducing inequality increases conspicuous consumption among low-status consumers even though it decreases their envy. This supports our hypothesis that the distribution of endowments influences both envy and the potential status gains conferred by conspicuous consumption, and that conspicuous consumption can be motivated by status gain independently of envy.

Study 1 has two limitations. The first is that it only examined the effects of the distribution inequality for people in the lowest tier. The second is that participants did not themselves experience low endowment and did not spend their own money. Although the validity of scenario studies for behavioral intentions is well established in many social psychology experiments (Bone and Ellen 1992; Brown, Keenan, and Potts 1986), it is important to examine the robustness of the findings of study 1 when participants themselves experience low endowment and when they are spending their own money. We examine these two issues in study 2.

STUDY 2: EFFECTS OF ENDOWMENT INEQUALITY ON CONSPICUOUS CONSUMPTION FOR CONSUMERS WITH LOW AND HIGH ENDOWMENTS

In study 2, we examine the effect of inequality on the decisions of people with high and low endowments to save or spend their own money on conspicuous decisions. We examine these issues in the context of the ultimatum game because prior research has shown that social status influences the outcome of the ultimatum game (Ball et al. 2001; Hoffman and Spitzer 1985). For example, Ball and Eckel (1996) manipulated the players' status by publicly calling some participants to the front of the room and by pinning a star on their lapel. They found that the players with a star received a greater share of the resource divided in the ultimatum game than those without a star. The ultimatum game setting also allows us to manipulate the actual status

and economic outcomes of the participants, making the decision to save or consume more consequential for them.

In order to further test the rank gain hypothesis, we also examine the effects of inequality for people with a low or high endowment. Study 1 showed that reducing inequality increases the chance that people in the lowest tier of the distribution will engage in conspicuous consumption. In contrast, people with a higher endowment (e.g., in the third or second tier of the distribution shown in Figure 1) are ahead of more people when inequality is low (and many people are in tier 4) than when it is high (and people are spread across tiers 4 to 1). As a result, higher-tier consumers have fewer people to surpass when inequality is low than when it is high. The rank gain hypothesis therefore predicts that reducing inequality will reduce conspicuous consumption among consumers in the third tier, the opposite of the effect that it has on people in the first tier. We test this hypothesis in study 2.

Method

We recruited 105 people on the streets of a large city and asked them to take part in a negotiation experiment in exchange for a €2 meal voucher. We used a 2×2 between-subjects design with distribution inequality (low vs. high) and endowment level (low vs. high) as between-subjects factors. Drawing on the procedure used by Ball and Eckel (1996), we explained the rules of the ultimatum game and told participants that they would play in pairs and that one of them (the proposer) would decide how to divide 10 chocolates between them, while the other (the receiver) would decide whether to accept the offer or to reject it, in which case neither one of them would get any chocolate. To manipulate endowment, a research assistant assigned half the participants to the proposer condition (which, according to prior research, has higher status than

the receiver condition (Zizzo 2008)), pinned three stars on their lapels, and congratulated them (high endowment condition). Participants in the low endowment condition were assigned to the receiver condition, were given only one star, and were not congratulated by the research assistant. The research assistant provided no reason for assigning participants to the low or high endowment condition.

We told the participants that the number of stars of both players in the game would be made public. We also told them that prior studies had shown that players with many stars typically received more chocolates in such a game than players with few stars. We then showed the participants one of two distributions of stars, supposedly obtained by the participants on previous days. In the low inequality condition, the percentages of participants who received 1, 2, 3, 4, or 5 stars were 15%, 39%, 11%, 16%, and 19%, respectively. In the high inequality distribution, the frequencies were 15%, 26%, 27%, 22%, and 10%, respectively. As in study 1, the inequality manipulation therefore reproduced the effects of a luxury tax on the number of stars. The total number of stars (i.e., the total endowment to be allocated) and the mean number of stars remained unchanged across the two distribution conditions.

The participants were then told that they could buy extra stars for €0.25 each, unbeknownst to their partners in the game who would only know the final number of stars of their opponent. We told them that their purchases would be deducted from their compensation but that they would endow them with higher status and hence increase their likelihood of obtaining chocolates in the ultimatum game. Participants indicated their willingness to buy additional stars on a nine-point scale anchored at 1 = “not at all” to 9 = “very much”. Because the goal of the study was to measure the effects of the distribution of endowment on conspicuous decisions, rather than the effect of status on the ultimatum game per se, after the participants had made their purchase decisions, we told them that they did not actually have to play the game, that they could have as

many chocolates as they wanted, and gave all of them the €2.00 voucher. We then debriefed them on the goal of the study.

Results and discussion

We conducted an ANOVA on the decisions to buy status using inequality of the endowment distribution (low vs. high) and the players' endowment level (low vs. high) and their interaction as fixed factors. The main effects of inequality and endowment level were not statistically significant ($F(1, 101) = .05$, $p = .83$ and $F(1, 101) = .4$, $p = .52$, respectively). As expected, the interaction between inequality and endowment level was statistically significant ($F(1, 101) = 9.1$, $p < .01$). As shown in Figure 3, one-star players were more willing to buy stars when inequality was low ($M = 6.3$) than when it was high ($M = 4.7$, $F(1, 101) = 4.8$, $p < .05$). As in study 1, participants with one star were more likely to engage in conspicuous consumption when inequality was low and they could leapfrog over 39% of the players with two stars, than when inequality was high and only 26% of players had two stars. As expected, the opposite pattern of results was obtained for high endowment players, who were less likely to engage in conspicuous consumption when inequality was low ($M = 4.4$) than when it was high ($M = 5.9$, $F(1, 101) = 4.3$, $p < .05$). This is consistent with the rank gain hypothesis because buying additional stars would allow three-star players to get ahead of more players when inequality was high (and 22% of the players had four stars) than when it was low (and only 16% of players had four stars).

----Insert Figure 3 about here----

Overall, study 2 provides additional evidence supporting the prediction of our framework when participants are deciding whether to save or to spend their own money on conspicuous consumption in order to acquire social status. It shows that conspicuous consumption decisions are influenced by the size of the rank gain improvement for people with both low and high endowment. As in study 1, reducing inequality made people in the fifth tier more willing to engage in conspicuous consumption because it allowed them to leapfrog over a larger number of people in the fourth tier. Conversely, reducing inequality made people in the third tier less willing to engage in conspicuous consumption because it reduced the number of people that they could surpass in the second tier.

Studies 1 and 2 both examined decisions about whether to save money or to engage in conspicuous consumption by acquiring possessions that conferred social status. In the next three studies, we further test the predictions of our framework by examining cases in which status, and hence rank gains, is less relevant. We do this by manipulating the conspicuousness of the products being consumed (study 3), by priming social competition or social indifference goals (study 4), and by using a social context that rewards either cooperation or competition (study 5). This allows us to further test the rank gain mechanism and to examine its boundary conditions.

STUDY 3: EFFECTS OF ENDOWMENT INEQUALITY ON CONSPICUOUS AND INCONSPICUOUS CONSUMPTION

The main objective of study 3 is to examine whether the effects of inequality on consumption are moderated by the level of conspicuousness of the consumption. Study 3 also allows us to test another portion of the framework, which is that reducing inequality should increase the satisfaction of low-tier consumers with their current endowment (vs. the social envy that was

measured in study 1). We expect that reducing inequality will improve the rank gains that consumption provides to low-tier consumers as well as their satisfaction with their initial endowment. We also expect that the effects of inequality reduction on rank gains and satisfaction will be similar for conspicuous and inconspicuous products. However, we expect that these two mechanisms will lead to different consumption effects depending on the relative importance of rank gains and satisfaction. Specifically, we expect that reducing inequality will increase spending when rank gains matter (i.e., for conspicuous products) but decrease spending when rank gains do not matter and hence consumption is driven by one's satisfaction with one's current endowment (i.e., for inconspicuous products).

Method

In study 3, we manipulated the inequality of the distribution of endowment (low vs. high) and the conspicuousness of the consumption (low vs. high) between subjects with three product replications (home gardens, home decoration, and clothing). We used the same procedure as in study 1 but with three different scenarios to check the robustness of the findings and to manipulate conspicuousness in two different ways: by using different products (flower bushes vs. pine trees in the home garden scenario, and the size of a TV screen vs. the size of a decorative mirror in the home decoration scenario), and by focusing on two different attributes of the same product in the clothing scenario (the brand name vs. the type of fabric of a scarf).

In the home garden scenario, participants in the high conspicuousness condition read the same scenario as in study 1, describing someone with no flower bushes in her garden, who, upon reading information about the number of houses in the neighborhood with flower bushes from a local newsletter, was considering spending €45 to buy three bushes to be planted in the front

garden. Participants in the low conspicuousness condition read a similar scenario except that it was about pine trees to be planted in the back garden. The five tiers of the distribution were the same in both conditions (zero; one or two; three or four; five or six; and seven or more flower bushes or pine trees). In a pre-test, we asked 22 people to rate how much each type of plant influenced people's social status on a nine-point scale (from 1 = "not at all" to 9 = "very much"). As expected, flower bushes were seen as more conspicuous products (M = 4.1) than pine trees (M = 3.3, t-test (21) = 2.2, $p < .05$).

The home decoration scenario described a person who was considering improving the appearance of her living room. In the high conspicuousness condition, she was considering replacing her 19" flat-screen television with a 32" flat-screen television at a cost of €750. In the low conspicuousness condition, she was considering replacing a 19" antique mirror with a 32" mirror at a cost of €250. In both conditions, the person had been reading a magazine article which provided information about the popularity of five different sizes of either televisions or mirrors (19"; 20" to 31"; 32" to 39"; 40" to 45"; and 46" and beyond). The pre-test confirmed that the size of a television screen had a greater impact on social status (M = 5.4) than the size of a mirror (M = 3.7, t-test (21) = 2.8, $p < .01$).

The third scenario described the situation of a college student who was going on a class ski trip and owned a hand-me-down scarf. Undecided about whether to buy a better scarf, she had observed the scarves worn by other students and estimated that there were five categories. In the low conspicuousness condition, the four categories above hand-me-downs were ranked by fabric quality (polyester, cotton, wool, and cashmere). In the high conspicuousness condition, the four other categories were ranked according to the prestige of their brands (Marks & Spencer, Zara, Ralph Lauren, and Chanel). In both conditions the decision involved whether to spend €40 on a scarf in the third tier (either a cotton scarf or a Zara scarf). Although both the fabric and brand

name of a scarf are observable, the pre-test showed that the brand of a scarf had a greater impact on social status (M = 5.6) than the quality of the fabric (M = 4.8, t-test (21) = 2.9, $p < .01$).

As in study 1, we manipulated the equality of the distribution across the five tiers using the distributions shown in Figure 1: 10%, 40%, 20%, 20%, and 10% in the low inequality condition and 10%, 20%, 20%, 25%, and 25% in the high inequality condition. Participants were then asked to predict whether the bottom tier person described in the scenario would choose to spend the money or to save it instead (anchored from 1 = "definitely save" to 9 = "definitely spend"). They also indicated how buying the product would increase this person's position in the distribution described in the scenario (from 1 = "not at all" to 9 = "very much"). Finally, respondents rated how satisfied they believed this person was with her initial position in the fifth tier (from 1 = "very unsatisfied" to 9 = "very satisfied"). The order of the three questions was counterbalanced across participants. We expected that these measures would show that the inequality manipulation influenced the rank improvement conferred by spending and the satisfaction of the fifth tier person equally in the conspicuous and inconspicuous product condition.

Results

Because there were no differences across the three scenarios, we pooled the data across the three replications and obtained a total of 153 responses. In line with our predictions, the main effects of inequality and conspicuousness were not statistically significant (respectively, $F(1, 149) = .1$, $p = .75$, and $F(1, 149) = 1.1$, $p = .29$), but their interaction was significant ($F(1, 149) = 9.4$, $p < .01$). As shown in Figure 4, reducing inequality increased spending in the conspicuous condition but decreased spending in the inconspicuous condition. Contrast tests further showed

that conspicuous consumption was higher in the low inequality condition (M = 7.3) than in the high inequality condition (M = 6.4, $F(1, 149) = 3.8$, $p < .05$), which replicated the findings of study 1. For inconspicuous consumption, however, spending was lower in the low inequality condition (M = 6.0) than in the high inequality condition (M = 7.1, $F(1, 149) = 5.8$, $p < .05$).

----Insert Figure 4 about here----

We now turn to the analyses of the perceived rank gain and satisfaction data. For perceived rank gains, only the main effect of the inequality manipulation was statistically significant ($F(1, 149) = 29.1$, $p < .01$), while the effects of conspicuousness and its interaction with inequality were not ($F(1, 149) = .1$, $p = .71$ and $F(1, 149) = .2$, $p = .65$, respectively). As expected, people realized that consumption (conspicuous or not) allowed them to leapfrog over more people when inequality was low (M = 6.2) than when it was high (M = 3.8). Similarly, only the main effect of inequality was significant for satisfaction ($F(1, 149) = 10.7$, $p < .01$), and the effects of conspicuousness and its interaction with inequality were not statistically significant ($F(1, 149) = .04$, $p = .85$ and $F(1, 149) = .2$, $p = .66$, respectively). People indicated that the fifth tier person would be more satisfied with her initial position when inequality was low (M = 3.8) than when it was high (M = 2.8), regardless of conspicuousness of the product.

Discussion

Study 3 showed that the effect of inequality on the preference for spending over saving is different for conspicuous and inconspicuous consumption. First, it replicated in two new scenarios the results of studies 1 and 2 —that reducing inequality encourages low-tier consumers

to spend on conspicuous consumption because it allows them to get ahead of more people. More importantly, study 3 showed that reducing inequality decreases spending on inconspicuous products because it increases people's satisfaction with their current endowment. Even though buying inconspicuous products provides the same improvement in rank order as buying conspicuous products, rank order matters less for inconspicuous products which do not contribute to status. Study 3 therefore shows a boundary condition for the effect of reducing inequality on spending vs. saving decisions.

An interesting question that arises from the results of studies 1-3 is whether these results would generalize to the more general case in which endowment is not directly observable (e.g., income) and people choose between relatively conspicuous or inconspicuous alternatives to signal their desired status level. So far we have examined the effects of inequality by manipulating the type and amount of products owned and have therefore examined situations in which endowment is narrowly defined in terms of a single observable product (e.g., the size of one's TV screen) and spending decisions involve tradeoffs between saving money and spending on that same product. Yet in most of the research on status and on conspicuous consumption, status is determined more broadly by people's relative wealth or income (e.g., Chao and Schor 1998; Duesenberry 1949). In addition, it is important to further test the hypothesized moderating role of the importance of status seeking by directly priming status-seeking goals rather than by using different product categories. Finally, studies 1-3 examined the tradeoffs that people make between consumption and savings. It remains to be seen whether the effects found in these studies also apply to tradeoffs between conspicuous and inconspicuous consumption. We examine these issues in the following two studies.

STUDY 4: EFFECTS OF INCOME INEQUALITY AND SOCIAL COMPETITION ON TRADEOFFS BETWEEN CONSPICUOUS AND INCONSPICUOUS CONSUMPTION

In study 4, we directly manipulate the inequality of the income distribution and examine whether it influences the tradeoffs between conspicuous and inconspicuous consumption. We also test the moderating role of status seeking by nonconsciously priming social competition or social indifference goals. Past research has shown that activation of competition-related concepts leads to more competitive behavior (Kawada et al. 2004). For example, Griskevicius et al. (2007) showed that activating mating motives leads men to engage more in conspicuous consumption. Similarly, Rucker and Galisky (2008) showed that people compensate for feelings of social powerlessness with a higher willingness to pay for status goods. Activating social competition goals should therefore encourage people to focus on social rank gains, whereas activating social indifference goals should encourage them to focus on their initial satisfaction with their income. Therefore, we expect that reducing inequality will increase the preference for conspicuous over inconspicuous consumption when social competition goals are primed (and people focus on the larger number of people that they can get ahead of) but decrease it when social indifference goals are primed (and people focus on their higher satisfaction with their current income).

Method

Study 4 used a 2×2 between-subjects design with the inequality of the income distribution (low vs. high) and goal prime (social competition vs. social indifference) as fixed factors. Sixty-nine participants were recruited near a university campus to fill out a questionnaire in exchange for a voucher for a movie ticket. To prime social competition and social indifference goals, we

first asked the participants to complete a scrambled sentence task (Bargh and Chartrand 2000) presented as a verbal aptitude test. In the social competition prime condition, the participants created four five-word sentences that highlighted the importance of social competition and comparisons (e.g., “success is a relative concept”). In the social indifference prime condition, the sentences highlighted the importance of following one’s own preference and of ignoring others’ (e.g., “true happiness comes from within”). Both conditions also included three neutral sentences.

After completing the scrambled sentence task, the participants went to a different room where they read a scenario with the inequality manipulation. They were asked to imagine that the Human Resources department of the firm at which they had been working for three years had prepared a report on the salary distribution of people who had been hired at the same time as them. There were nine tiers of net after-tax monthly income (less than €1,500; €1,500 to €1,999; €2,000 to €2,499; €2,500 to €2,999; €3,000 to €3,499; €3,500 to €3,999; €4,000 to €4,499; €4,500 to €4,999; and €5,000 or more). The distribution was 5%; 15%; 35%; 15%; 10%; 5%; 5%; 5%; 5% in the low inequality condition and 5%; 15%; 15%; 15%; 15%; 10%; 10%; 10%; 5% in the high inequality condition. The inequality manipulation therefore reproduced the effects of a more progressive income tax which reduced the number of people in the top income tiers and increased the number of workers in the middle tiers. Participants were asked to imagine that their net after-tax monthly income was €1,900, which placed them in the eighth tier (20^{th} percentile) of the distribution, just behind 35% of people in tier 7 in the low inequality condition or behind only 15% of people in tier 7 in the high inequality condition.

Finally, we asked participants to imagine that they were planning to meet for dinner with a co-worker and asked them to indicate their preference between a new trendy Asian restaurant with a €45 fixed price menu (conspicuous option) and a traditional bistro with a €15 fixed price menu (inconspicuous option) on a single nine-point scale item anchored at 1 for the traditional

bistro and 9 for the trendy restaurant. A pre-test showed that the trendy Asian restaurant would have a stronger impact on social status than the bistro (M = 6.7 vs. M = 4.2, t-test (21) = 5.4, p < .01). After completing the questionnaire, the participants were debriefed, handed a voucher, and dismissed.

Results and discussion

We conducted an ANOVA with income inequality (low vs. high), goal prime (social competition vs. social indifference), and their interaction as fixed factors. The two main effects were not significant (F(1, 65) = .3, p = .62 for inequality and F(1, 65) = 2.8, p = .10 for goal), but their interaction was statistically significant (F(1, 65) = 11.3, p < .01). As shown in Figure 5, in the social competition prime condition people were more likely to choose the status-enhancing trendy restaurant when inequality was low (M = 6.0) than when it was high (M = 4.4, F(1, 65) = 4.2, p < .05). The opposite pattern emerged in the social indifference prime condition: people were less likely to choose the status-enhancing trendy restaurant when inequality was low (M = 3.1) than when it was high (M = 5.3, F(1, 65) = 7.3, p < .01).

----Insert Figure 5 about here----

Study 4 showed that when people do not care about status, lower-income consumers are less likely to engage in conspicuous consumption when inequality is low (and most people have a similar income) than when it is high. When people do care about status, however, reducing inequality encourages lower-income people to spend on conspicuous consumption because it allows them to gain more status for the same spending. Study 4 therefore replicates the findings

of study 3 but by directly priming social competition goals rather than by asking about different products, by manipulating income rather than single product endowment, and by measuring tradeoffs between conspicuous and inconspicuous consumption rather than between consumption and saving.

The results of the inconspicuous consumption condition in study 3 and of the social indifference condition in study 4 suggest that people may not always be looking to improve their social status. This raises the question of whether there are social contexts in which people would actually prefer to avoid standing out and gaining a higher social rank. Existing research suggests that people seek to improve their status in competitive environments when they want to stand out from others, but avoid social rank gains in cooperative environments when they want to fit in with others (Frank 1985b; Frank and Cook 1995). This leads us to expect that reducing inequality will encourage a preference for conspicuous consumption when people are in a competitive social context (e.g., with rival co-workers), but will discourage it in a cooperative social context (e.g., with community friends). We test these hypotheses in study 5.

STUDY 5: EFFECTS OF INCOME INEQUALITY AND GROUP COMPETITIVENESS ON TRADEOFFS BETWEEN CONSPICUOUS AND INCONSPICUOUS CONSUMPTION

Method

Study 5 used a 2×2 between-subjects design with inequality of income distribution (low vs. high) and the type of the social context (competitive vs. cooperative) as fixed factors. Seventy-one participants were recruited near a large urban university in exchange for a voucher for a

movie ticket. To manipulate the competitiveness of the social context, we relied on existing research showing that people are more likely to engage in cooperative behaviors when primed with a "friend" concept rather than a "co-worker" concept (Fitzsimons and Bargh 2003). The competitive condition used the same scenario as in study 4 and described the income distribution of rival co-workers. In the cooperative condition, the income distribution information was provided in a community newsletter and applied to community members. As in study 4, the participants again were told that they were in the eighth tier (20^{th} percentile) of the nine-tier income distribution and were asked to choose between going to the trendy Asian restaurant (conspicuous option) or to the traditional bistro (inconspicuous option), either with a rival co-worker in the competitive context condition or with a community friend in the cooperative context condition. After completing the questionnaire, the participants were debriefed, handed a voucher, and dismissed.

Results and discussion

One participant did not provide a response to the dependent variable; therefore, the analyses were based on the responses of the remaining 70 participants. We conducted an ANOVA with income inequality (low vs. high), social context (competitive vs. cooperative), and their interaction as fixed factors. The two main effects were not significant ($F(1, 66) < .01$, $p = .98$ for income inequality and $F(1, 66) = .9$, $p = .36$ for group competitiveness), but their interaction was statistically significant ($F(1, 66) = 8.5$, $p < .01$). As seen in Figure 6, participants in the competitive condition were more likely to choose conspicuous dining when income inequality was low ($M = 5.4$) than when it was high ($M = 3.6$, $F(1, 66) = 4.3$, $p < .05$). In the cooperative

condition, however, participants were less likely to choose conspicuous dining when inequality was low (M = 3.0) than when it was high (M = 4.8, $F(1, 66) = 4.2$, $p < .05$).

----Insert Figure 6 about here----

Overall, the results of study 5 show that the competitive or cooperative nature of the social context moderates the effects of income inequality on the tradeoffs that low-income people make between conspicuous and inconspicuous consumption. Study 5 therefore replicates the results of study 4 simply by changing the social context (friends vs. rivals) and without the need to artificially prime different status goals. Thereby, study 5 enhances the external validity of our results. Finally, the results of study 5 further reinforce the conclusion of the other studies that reducing inequality does not reduce conspicuous consumption by people at the bottom of the distribution when social rank matters. Conversely, they also suggest that redistribution policies may be effective when the social environment downplays competition for status and promotes cooperation.

GENERAL DISCUSSION

The objective of this research was to test in an experimental setting the prediction that reducing income or endowment inequality decreases conspicuous and inconspicuous consumption among consumers at the bottom of the distribution. Our main conclusion is that reducing inequality does indeed reduce inconspicuous consumption (which is irrelevant to social status) and conspicuous consumption when people at the bottom of the distribution do not care about status (in cooperative social contexts for example). However, we find that reducing

inequality actually fuels conspicuous consumption when people at the bottom of the distribution care about their social rank. This is because the reduction in inequality increases the number of people in middle status tiers and therefore increases the gain in social rank, and hence in status, that a given spending on conspicuous consumption offers low-tier consumers.

We find that these effects are robust and hold regardless of whether status is unobservable and broadly construed (as income) or observable and more narrowly construed (as endowment with status-conferring possessions); whether the decision is hypothetical or consequential; and whether the decision is a tradeoff between spending and saving or between spending on conspicuous or inconspicuous options.

Overall, our finding that reducing inequality does not always reduce consumption has important implications for public policy makers and for marketers of luxury products. Our finding that conspicuous consumption is influenced by position gains, and not just by people's initial position, also has important implications for consumer research on status. We examine these two implications in detail in the following sections.

Implications for policy makers and marketers

Our results suggest innovative ways for marketers and policy makers to influence conspicuous consumption decisions. First, they show that we cannot simply assume that reducing inequality will reduce consumption. As we have shown, reducing inequality may increase or decrease consumption depending on the importance of social competition goals, the social context, the level of conspicuousness of the consumption, and the initial endowment of the consumer. This suggests that the implications of redistribution policies need to be reconsidered for different segments of the population. In particular, our results show that even if wealth

redistribution would reduce conspicuous consumption by the relatively rich, it may actually encourage conspicuous consumption by the relatively poor, for whom it is most detrimental. On a positive note, we find that reducing income inequality succeeds in reducing conspicuous consumption in cooperative environments and when people are indifferent to the social context. This suggests that redistribution policies may be particularly effective if supplemented with policies to promote resistance to social pressure, which focus on relationships with friends and family. Echoing Putnam (2007), promoting a broad sense of "we" through popular culture, national symbols, education and common experiences may not only increase trust but could also reduce conspicuous arms races.

In this paper we have examined the effects of redistribution policies which reduce the number of people in the upper tiers and increase the number of people in the middle tiers of the distribution, but which keep the number of people in the lowest tier constant. This was done to rule out the alternative explanation that inequality effects may be driven by changes in the endowment of low-tier consumers. Examples of redistribution policies which keep the endowment of the lowest tier constant include progressive consumption or luxury taxes which only affect high spending levels or spending on expensive items (and hence do not influence the behavior of people in the lowest tiers). Still, it would be interesting to examine what would happen if inequality were reduced through redistribution policies which actually 'take from the rich to give to the poor' and hence increase the endowment of people in the bottom tiers.

Our research also has important implications for marketers. For example, marketers could improve the perceived status benefits of their products or services by highlighting not just their exclusivity but their leapfrogging benefits. For example, they could provide consumers with information about their rank or percentile and inform them about the proportion of consumers at each status level (e.g., "You are among the 30% of our customers with 'gold' status and with

three extra flights you would join the top 10% of our customers in the elite ‘platinum’ tier”). Marketers could also take into account the degree of inequality in their customer base when making pricing decisions. For example, they could charge more for deluxe product variants in markets with a more homogeneous consumer base and a competitive social environment. Instead of using a traditional pyramidal structure with a linear reduction in the number of people at each consecutive status tier, they could also structure their loyalty programs in order to match the most profitable upgrades with the highest rank gains.

Similarly, organizations interested in promoting socially responsible behaviors such as recycling, conservation, or charitable donations should emphasize their status benefits and make consumption decisions as publicly observable as possible. Finally, our results can help better understand the intensity of competition among firms with similar performance levels. Lehmann (2001) argued that one reason why market shares are exponentially distributed may be that managers care about market share ranks and compete more intensely when the gap between their market share and the share of their nearest competitor is small and ranks could easily change than when the gap is large and more difficult to bridge. Our results further suggest that Lehmann’s results could be generalized by looking at the equality of the market share distribution, and not just at the distance with the nearest competitor.

Implications for consumer research on status

The notion of social rank changes as a positive and forward-looking antecedent of conspicuous consumption complements the existing literature on status in consumer research which has tended to focus on social envy and dissatisfaction with one’s current endowment, two negative and backward-looking factors. It also has implications beyond status research. For

example, it suggests that range-frequency theory (Parducci 1965) may incorporate people's expectations about changes in percentile position, and not just the initial percentile position, when evaluating their current position and the actions that would shift them from the initial to the final position. It also suggests that optimal distinctiveness theory (Brewer 1991) may take into account the fact that differentiation is influenced not just by the size of the group to which one belongs, but also by the size of the group of people immediately ahead in the social hierarchy which can be leapfrogged.

In addition, our finding about the moderating role of the importance of status gain may help better understand why people sometimes engage in conspicuous consumption to differentiate themselves from their peers (the snob effect) whereas at other times they do so to affiliate with their peers (the bandwagon effect) (Amaldoss and Jain 2005a, b; Ariely and Levav 2000; Leibenstein 1950; Mead, Vohs, and Baumeister 2007). It would be interesting to examine whether this tendency to differentiate or to affiliate through conspicuous consumption is further moderated by such factors as the characteristics of relationships in the group (e.g., liking of others and satisfaction with past interactions) and personality characteristics (e.g., egocentricity and power orientation) (Corfman and Lehmann 1993).

Our findings also have direct implications for understanding status perceptions. Drèze and Nunes (2009) showed that adding a lower tier in a customer loyalty program increases the perceived status of people in top tiers. Our study extends their work by examining the effects of the distribution of people across tiers (vs. the number of tiers), by looking at people in bottom tiers (vs. top tiers), and by examining effects on consumption (vs. status perceptions). An important difference between our work and existing work on status (including the work by Drèze and Nunes) is that the rank gain hypothesis is independent of the status level. It makes the same prediction for people with high and low status, as long as the number of people that they surpass

is identical. Still, it would be interesting to examine whether being positioned at the extreme ends of the distribution may lead to specific behaviors (either diminishing or increasing sensitivity to status change). More generally, it would be interesting to extend our work to examine the effects of status change. For example, there is no reason to expect a priori perfectly symmetrical effects of increases and decreases in status. It is also possible that similar positive or negative changes in status may have different consumption effects depending on whether they are driven by changes in one's income (other people's income remaining constant) or by changes in other people's income (one's income remaining constant). These two issues are particularly relevant now that we are transitioning from a long period of economic expansion to a period of economic recession and overall income stagnation.

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FIGURE 1

HOW INEQUALITY INFLUENCES THE RANK GAINS PROVIDED BY CONSUMPTION

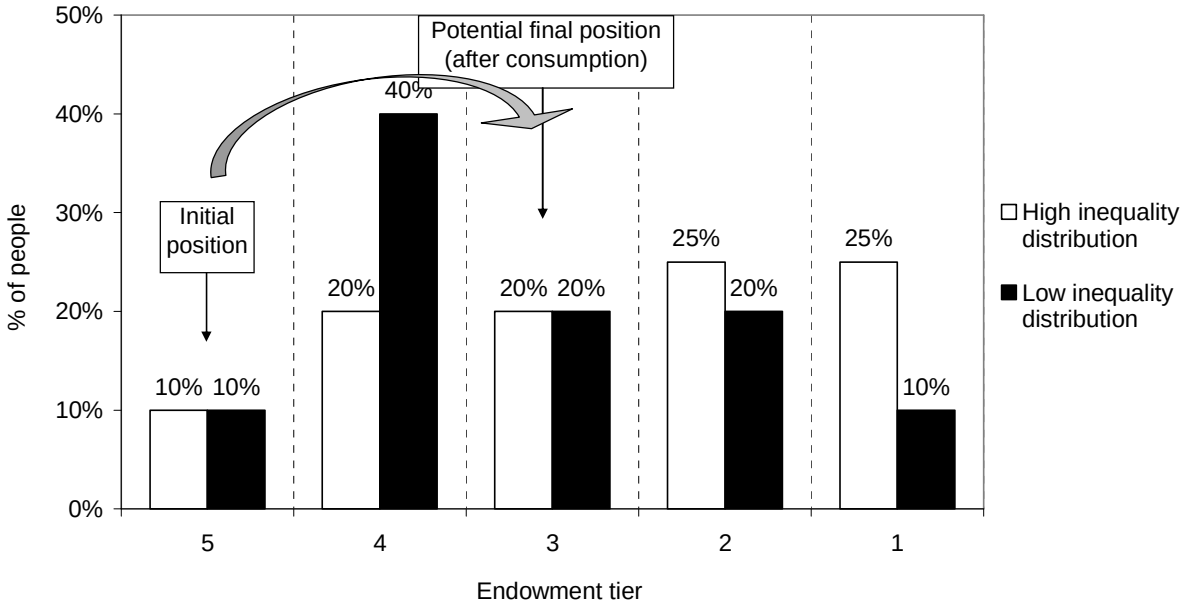

FIGURE 2

STUDY 1: EFFECT OF ENDOWMENT INEQUALITY ON CONSPICUOUS CONSUMPTION AND SOCIAL ENVY

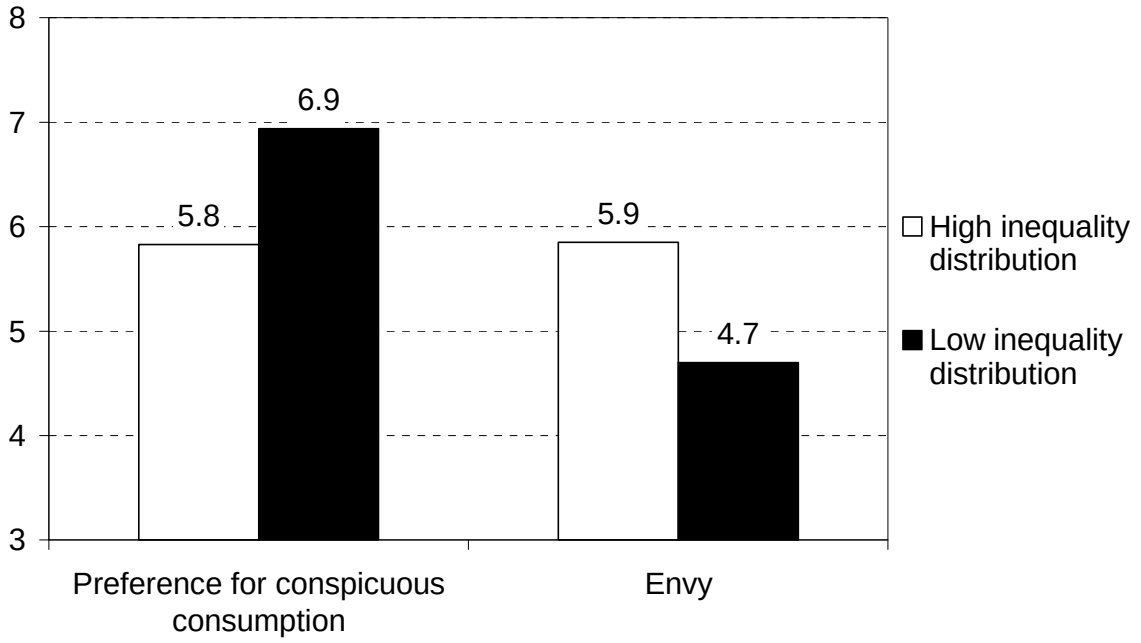

FIGURE 3

STUDY 2: EFFECTS OF ENDOWMENT INEQUALITY ON CONSPICUOUS CONSUMPTION FOR PEOPLE WITH LOW AND HIGH ENDOWMENTS

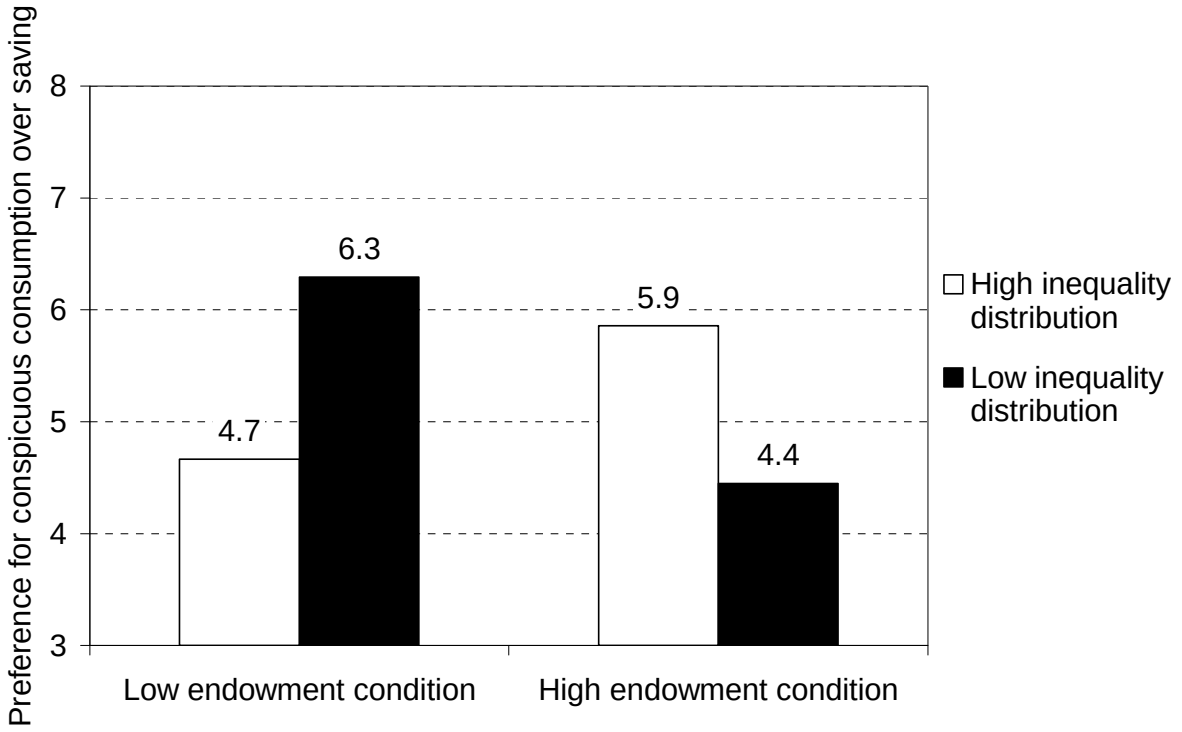

FIGURE 4

STUDY 3: EFFECT OF ENDOWMENT INEQUALITY ON CONSPICUOUS AND INCONSPICUOUS CONSUMPTION

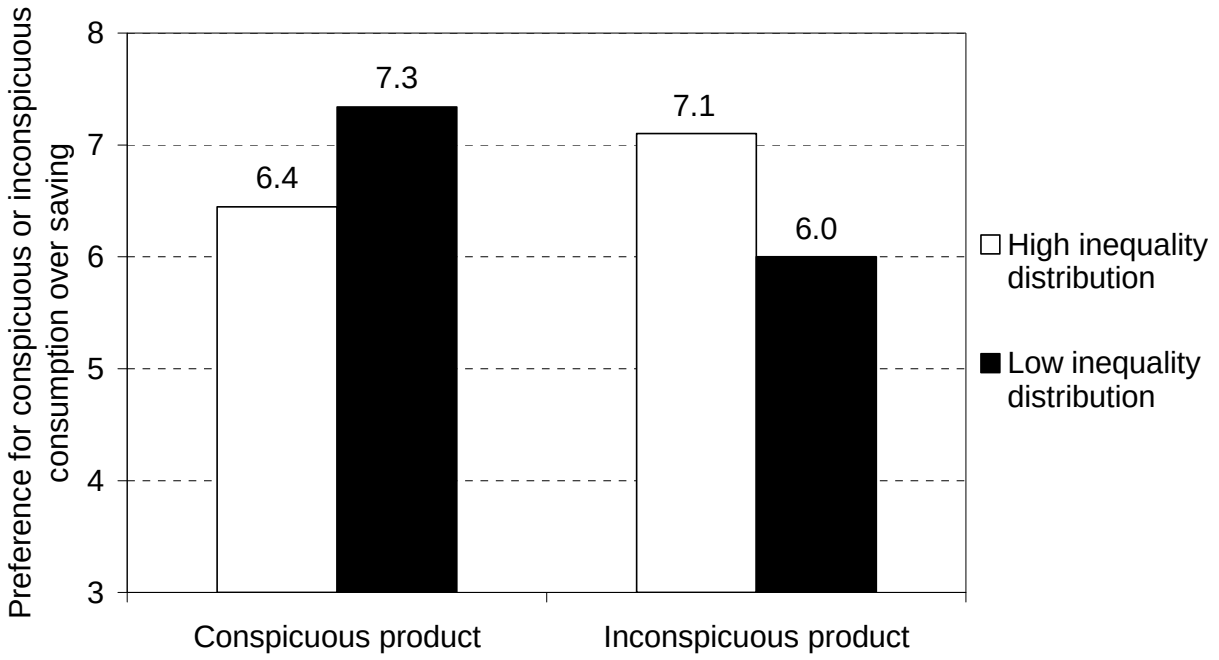

FIGURE 5

STUDY 4: EFFECTS OF INCOME INEQUALITY AND SOCIAL COMPETITION ON TRADEOFFS BETWEEN CONSPICUOUS AND INCONSPICUOUS CONSUMPTION

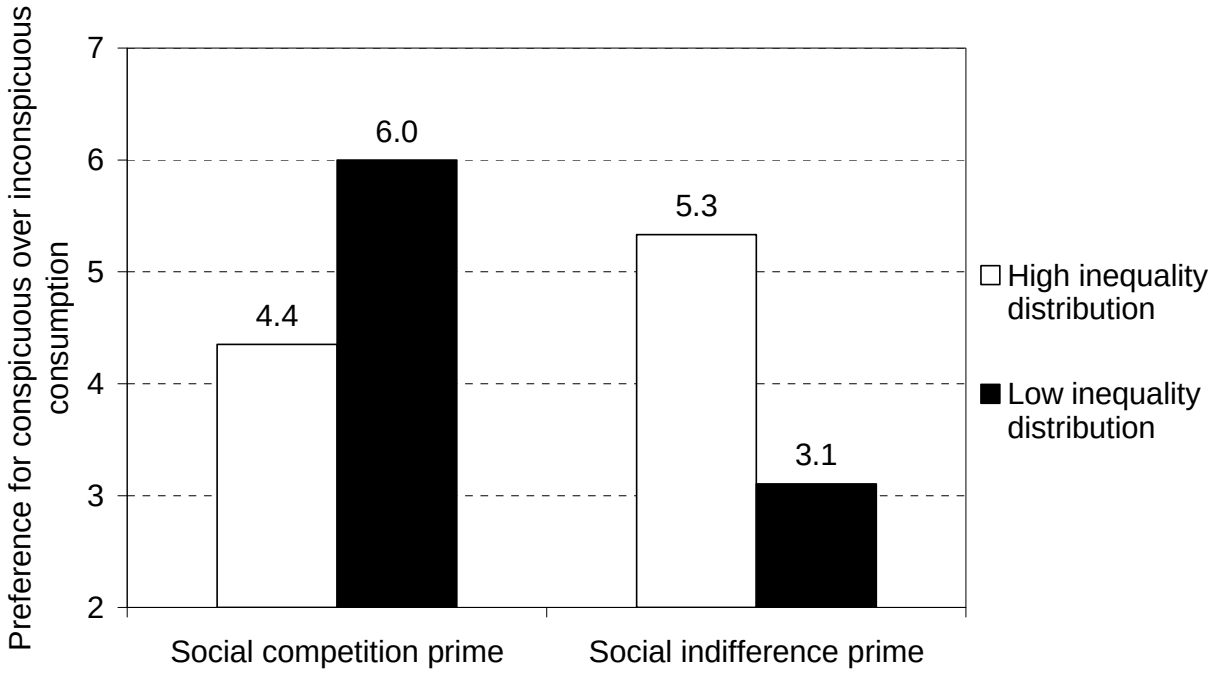

FIGURE 6

STUDY 5: EFFECTS OF INCOME INEQUALITY AND GROUP COMPETITIVENESS ON TRADEOFFS BETWEEN CONSPICUOUS AND INCONSPICUOUS CONSUMPTION