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Research Article

Viewing usage of counterfeit luxury goods: Social identity and social hierarchy effects on dilution and enhancement of genuine luxury brands

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Abstract

The use of counterfeit versions of luxury brands is a growing phenomenon. Viewing their use by others may lead consumers to change their perceptions of the genuine brand. In several experiments, female participants viewed (or imagined) a female of varying social classes using a counterfeit or genuine product and were subsequently asked about the genuine luxury brand. While people were drawn toward the genuine brand more when in-groups than out-groups used counterfeits, asymmetries occurred. Higher classes denigrated the brand when lower (versus higher) classes used counterfeit brands, but lower classes did not denigrate when higher classes used them. A conceptual account, based on asymmetries of social hierarchies and greater uncertainty of counterfeit (than genuine) product benefits, was supported, with feelings of connection to the luxury brand as mediator. Asymmetric effects were reduced among consumers highly familiar with the genuine brand. Implications for marketing and protection from brand dilution are discussed.

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Introduction

As the demand for luxury goods rises globally, manufacturers are increasingly policing global counterfeiting to protect their brands' equities. In the United States, luxury brands are among the most commonly-seized counterfeit items by the U.S. Customs and Border Protection Agency, with seizures growing annually (U.S. Customs and Border Protection, 2013). Globally, cost estimates to companies vary but range in the hundreds of billions of dollars (Commuri, 2009; International Chamber of Commerce website, 2013; Holmes, 2011). Luxury brand manufacturers such as Louis Vuitton and Tiffany are concerned not only about lost sales, but

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also losses in their luxury brands' most valuable assets, including changes in consumer perceptions of the status and prestige of the brands and the brand symbols (Lamb, 2010). A trend in many cultures among female consumers is to buy multiple "luxury" products within a category (e.g. multiple luxury handbags) with the mix including both luxury and counterfeit products (Li, 2013). Even many upper middle-class consumers may own a combination of genuine and counterfeit luxury goods, including purchases made online or at "purse parties" (Gosline, 2010), and use them interchangeably (Li, 2013). The prevalence of counterfeits in some luxury markets (e.g. Louis Vuitton look-alikes), and the difficulty in discerning differences in quality from the genuine brands, may lead consumers to form inferences or behavioral predispositions about the genuine brand based on who they know, or suspect, uses counterfeits.

An increasing body of research has been directed toward understanding consumers' responses to counterfeits. Research has

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examined the size of the counterfeit market, how counterfeits are perceived by consumers (Nia & Zaichkowsky, 2000) and the characteristics of the counterfeit buyer (Wee, Tan & Cheok, 1995). However, little is known about how counterfeit use impacts the genuine brand. Three research articles examine these effects. In two of them, people were exposed to counterfeit products and asked to self-report how these products affected their perceptions of the genuine brand. While Nia and Zaichkowsky (2000) found that people reported no change in their perceptions, Wilcox, Kim, and Sen (2009) found that people reported that counterfeits created more negative evaluations of the genuine brand. A third article using sales data (Oian, 2011) reported that counterfeits may positively impact sales of genuine products when the genuine brands represent high-end fashion. Together, these inconsistent findings call for a greater understanding of the conditions under which counterfeit use will produce change.

In our research we investigate the responses that consumers from different social classes have when viewing counterfeit versions of luxury brands. It may seem unreasonable for consumers to "blame" or show negative spillover (dilution) to the genuine luxury brand when they view counterfeits by certain others. And yet we found that spillover does, indeed, occur, and consistent with theories of social hierarchy, responses to counterfeits varied in an asymmetric manner for higher and lower social classes. When higher class females viewed or imagined another woman using a counterfeit luxury brand, viewers tended to rate the genuine luxury brand more negatively when the counterfeit user was an out-group member (a dissimilar social class to the viewer) than when she was from an in-group (a similar social class). Lower class members also showed in-group preferences, but were less likely to denigrate the genuine brand when higher classes used counterfeits. Further, these social group effects were less likely to occur when viewers were more certain about the benefits associated with the product used—such as when they viewed the genuine (versus counterfeit) brand, or when they had strong feelings of certainty about the counterfeit's benefits. A potential mediator for these effects (feelings of connection to the brand) and moderator (familiarity with the luxury brand) were also investigated. The conceptual basis for our research derives from theories of social identity and social hierarchy, described next.

Conceptual background

Consumers use products to differentiate themselves from others and to make inferences about the identities and social roles of others (Berger & Heath, 2008; Englis & Solomon, 1995; Tajfel, 2010). Consumers' shared understanding of the symbolic meanings of products, whether through a brand's logo, name, patterns or other visibly identifying feature, and the constellation of products that reflect a certain lifestyle (Englis & Solomon, 1995; Lowry, Englis, Shavitt, & Solomon, 2001), is an important driver in consumers' communicating to others the groups to which they aspire to belong or people to whom they wish to be similar or dissimilar (Escalas & Bettman, 2003; Berger & Heath, 2007). To the extent that an individual uses products typical of a social category, such as social class, and does not use products associated with other roles, that

individual is more likely to be viewed as a member of that category (Solomon & Assael, 1988; Berger & Heath, 2008; Escalas & Bettman, 2003: White & Dahl, 2006, 2007). Luxurv brands, in particular, communicate social class standing and become emblematic of an aspirational lifestyle (Englis & Solomon, 1995). Counterfeit versions, which provide easier access to luxury, can trigger these aspirational lifestyles and fulfill symbolic needs, even vicariously, when viewing other like-minded people using them. When female consumers seek to belong to a particular aspirational group that uses expensive luxury handbags, they may perceive use of a counterfeit by similar others as a symbol of the importance of the brand to their current group membership and, in turn, may increase their favorable perceptions of the genuine luxury brand. Dissociative "out-group" reference groups can also impact consumer brand preferences (Berger & Heath, 2008; Escalas & Bettman, 2003; Solomon & Assael, 1988; White & Dahl, 2006, 2007). Dissimilar others using a counterfeit may lead consumers to weaken their ties to the genuine brand (White & Dahl, 2006), and these dissociations may impact choices (McFerran et al., 2010). Consumers may abandon brands when out-groups adopt them and/or when the brands lose their exclusivity (Berger & Heath, 2007, 2008; White & Dahl, 2006). In general, therefore, people are drawn toward products used by in-groups and repelled by products used by out-groups (e.g. Stephens, Markus, & Townsend, 2007).

However, social class is used not only to communicate social identity; consumers also use it to communicate social hierarchy or rank. Social hierarchy is the unequal distribution of status across individuals (Fragile, Overbeck, & Neale, 2011; Magee & Galinsky, 2008), and social class is an important type of ranking within a social hierarchy (Kraus, Piff, & Keltner, 2009). Attempts to attain social standing are so commonplace that desire for status is considered a fundamental human motive (Fragile et al., 2011; Frank, 1985; Zitek & Tiedens, 2012). Theories of social hierarchy note that there is a general attraction toward tastes of in-groups and an aversion toward tastes of out-groups, but that asymmetries may also occur. In the current context, three conceptual ideas in the social hierarchy literature lead to predictions about how consumers will respond to viewing persons of the same or different social class using counterfeit products.

First, people have a desire to preserve their society's social hierarchy, regardless of whether one is a member of a higher or lower class (Magee & Galinsky, 2008; Jost, Banaji, & Nosek, 2004; p. 887). That is, although in many societies people say that they find equality preferable to hierarchy, hierarchies are nevertheless commonplace (Magee & Galinsky, 2008), connote stability and familiarity, and implicitly are accepted as just by persons of all ranks (Zitek & Tiedens, 2012). Second, in addition to the acceptance of hierarchies, an asymmetry in perceptions exists, among those higher and lower rank in the hierarchy, that preserves the ranking. Those with higher (versus lower) status are more invested in preserving the ranking, given the many benefits (e.g. power, resources) associated with a higher rank. As a result, higher-ranked persons are more likely to denigrate and sanction lower-ranked persons and their

symbols when they attempt to change rank and position in the hierarchy ("approach" responses, Magee & Galinsky, 2008), and those with lower status are more likely to submit to the wishes of those with greater status ("inhibit" responses, Magee & Galinsky, 2008; Keltner, Gruenfeld, & Anderson, 2003; Anderson, John, Keltner, & Kring, 2001; Keltner et al., 2003). The consequences of asymmetry for those ranked higher and lower in the social hierarchy have been documented in the organizational literature (e.g. Washington & Zajac, 2005; Podolny, 2005), and are discussed in the trade literature when designer brand symbols are co-opted by consumers of lower classes (e.g. Tommy Hilfiger during the 1990s; Cashberry, 2006), but are under-researched in a consumer psychology domain. In the present context, we expect that higher-class consumers will be more invested and more likely to preserve their status by denigrating brands consumed by lower classes, whereas lower-class consumers will be more willing to accept symbols and brands that are used by higher classes.

But how difficult is it to change prestige associations of luxury brands? Such associations have often developed historically through exclusive distribution channels (e.g. Hermes products sold exclusively at Hermes stores), with very high prices that exclude lower class consumers from purchasing them. Entrenched associations regarding exclusivity and prestige often develop for such brands, and abundant research on brand dilution finds that beliefs about such strong brands are resistant to change from negative influences (for a review, see Loken & John, 2010). Even when viewing someone from a lower social class use the genuine brand, consumers may view the context as an exception since the product is an expensive ("out of reach") item.

However, even these entrenched associations of brands may change under certain conditions (e.g. Ahluwalia, Burnkrant, & Unnava, 2000; Loken & John, 2010; Votolato & Unnava, 2006; Warlop & Alba, 2004; Bellezza & Keinan, 2014). Viewing counterfeit luxury brand usage is proposed as one of those contexts in which beliefs about a strong luxury brand may be vulnerable. In particular, a third conceptual idea of theories of social hierarchy (Podolny, 1994, 2005, p. 255, Sauder, Lynn, & Podolny, 2012) is that under conditions of uncertainty, such as when consumers are uncertain about the benefits associated with a product, external cues gain importance. One study of organizations found that companies benefitted more from being associated with high- (than low-) status producers when other companies were uncertain about the company's product value (Stuart, Hoang, & Hybels, 1999; see also, Washington & Zajac, 2005). The consumer literature, too, provides evidence that when product value is ambiguous (versus unambiguous) people are prone to rely on external cues in evaluation (e.g. Hoch & Young-Won, 1986). But consumer research has not demonstrated this effect in the context of social class cues or in the context of using counterfeit luxury products, for which social hierarchies are particularly relevant. Since numerous risks are associated with using counterfeits (Wee et al., 1995; Penz & Stottinger, 2005), it seems likely that consumers are more uncertain about the benefits or status associated with them (versus the genuine brand). The counterfeit "brand" has little meaning other than its symbolic value of the importance of the genuine brand. Using external cues, such as who is using the counterfeit product, and who is willing to take that risk (cf. Han, Nunes, & Drèze, 2010), may act to address those uncertainties associated with using counterfeits.

Therefore, we predict that when consumers are evaluating the genuine luxury brand under conditions of uncertainty, such as when they view a counterfeit product being used, they are more likely to rely on social category cues. When they view a similar other using the counterfeit product, they may wish to connect more with the luxury brand as a symbol of group membership and the brand's prestige. In contrast, when consumers view dissimilar others using the counterfeit product, the counterfeit may be regarded as a threat to the symbolic value of the brand and its distinctiveness with respect to a social role (Berger & Heath, 2008; Solomon & Assael, 1987). The observer is more likely to distance herself from the genuine luxury brand, is less likely to view that brand as reflecting her self-identity, and feels less attached to it (cf. White & Dahl, 2007; Berger & Heath, 2008). Greater feelings of distance from the luxury brand should result in lower evaluations of it.

In summary, while strong beliefs about prestige and perceptions of favorability toward a luxury brand are resistant to change, viewing counterfeit usage of the brand may make these beliefs vulnerable. The uncertainty associated with counterfeits raises the importance of external cues. These external cues, such as in-group/out-group usage of counterfeits, and accompanying feelings of closeness or distance from the genuine brand, will spill over to evaluations and behavioral responses toward the genuine brand.

Finally, some individuals are more likely than others to resist external pressures of in-group/out-group preferences, or to fall prey to social hierarchy biases. Research finds that consumers with greater (versus less) familiarity and/or experience with a brand are more likely to be resistant to external forces that could cause brand dilution, such as trademark imitation by competing brands (Morrin, Lee, & Allenby, 2006; Foxman, Muehling, & Berger, 1990), negative publicity about the brand (Dawar & Pillutla, 2000; Stockmyer, 1996), or brand extension failures (Loken & John, 2010). These individuals have strong brand beliefs, whether built by brand advertising. word-of-mouth, or personal experience. In our research, we expect that consumers with greater (versus less) familiarity with the luxury brand should be less affected by the usage of counterfeit versions of the brand by different social groups. External cues of social class should play a lesser role.

Research hypothesis and overview

Our arguments lead to several predictions. First, based on social identity theory, we predict that people will report more favorable perceptions toward a luxury brand when they view an in-group member use a counterfeit version of it than when they view an out-group member using it. However, consistent with social hierarchy predictions, the effects of in-group and out-group will be asymmetric based on the social class of the observer. That is, when higher class consumers view usage of a counterfeit brand (e.g. Louis Vuitton), their evaluations and intentions toward the genuine brand should be more favorable when the user is of a higher than lower social class. The

reciprocal effects are not expected for persons who identify with a lower social status, that is, their views of the genuine brand will be favorable regardless of whether the counterfeit user is of a lower or higher social class. The impact of social identity and social hierarchy should be greater under conditions of uncertainty, that is, when viewing counterfeits than when viewing genuine brands and when consumers' feelings of uncertainty about the counterfeit product are high. Familiarity with the luxury brand should also moderate social hierarchy effects when viewing counterfeit use.

The importance of social class to the study of prestige products has been established by a sizeable body of research (e.g. Carman, 1965; Coleman, 1983; Mandel, Petrova, & Cialdini, 2006; Han et al., 2010; Mazzocco, Rucker, Galinsky, & Anderson, 2012). While the concept of social class has always been hard to define (Coleman, 1983), previous research has established four factors as valid indicators of this construct: occupation, education, household income and ethnicity (e.g. Jain, 1975; Henry, 2005). In accordance with this prior work, our research manipulates the social class of the product user by describing the counterfeit (or genuine) luxury brand user as having different professions and higher or lower levels of income and education.

Experiment 1a

In the first study we examined consumers' perceptions of luxury brands after they viewed a photo of either an in-group or out-group member using either a genuine or a counterfeit luxury brand. Our participant observers were drawn from a sample of relatively higher class undergraduate business students, so we expected in-group effects to occur when the product user in the photo was higher in social class and out-group effects to occur when the product user was lower in social class. To this end, the product user in the photo was described as either a recent medical school graduate from the same university as the participants, or as a high-school-educated career waitress at a popular restaurant chain. Dependent variables included ratings of the prestige of the genuine luxury brand and overall attitudes toward this brand. Across all studies reported here, the median coefficient alpha that combined prestige and attitudes scales was .83, so only the combined index is reported in these studies. We predicted greater effects on evaluations of the genuine luxury brand when the product shown in the photo was described as counterfeit (versus genuine) and that effects would be more favorable for in-group perceptions (when the brand user in the photo belonged to a higher social class) than for out-group perceptions (when the user belonged to a lower social class).

Method

Selection of brands

To improve the generalizability of our results, we exposed female participants to one of two luxury brands with established reputations: Prada or Louis Vuitton (LV). Prada, an Italian luxury brand, was chosen because of its assumed position as a high-status brand in popular culture (e.g. popularized by the

movie about the fashion industry, "The Devil Wears Prada"). The price range of Prada handbags also supports its position as a prestigious product (retailing up to \$5000 or more). Louis Vuitton (LV) is an older, French, luxury brand, with similar retail values as Prada. Louis Vuitton has established a prominent position in popular culture by targeting advertising to a younger audience (e.g. campaigns involving Stefi Graf, Gisele Bundchen and Angelina Jolie), and is mentioned in songs by such artists as Juicy J and Kanye West. The LV brand has become so popular that even counterfeit Louis Vuitton handbags have found their way into music videos; for example, in 2007 LV successfully sued Sony BMG and MTV for the use of a counterfeit LV handbag in a Britney Spears music video.

Procedure

We randomly assigned 147 female students in a large Midwestern university to one of 8 conditions of a 2 (authenticity of the product being used: genuine versus counterfeit) × 2 (social class of the product user: relatively higher-class versus relatively lower-class) × 2 (luxury brand: Prada or Louis Vuitton) factorial design. Participants were seated at individual cubicles and shown a photograph of a young woman using either a Louis Vuitton or a Prada handbag. They were told that the product in the picture was either a real product of the brand or a counterfeit. A brief description of the consumer conveyed her social class (Appendix A).

After examining the picture and reading the description of the product user, participants reported their ratings of prestige and overall attitudes toward the genuine luxury brand. The prestige-attitude index was an average of two 7-point prestige scales with endpoints "strongly agree/strongly disagree" and "extremely likely/extremely unlikely" ("Do you agree or disagree that Prada/Louis Vuitton products are very prestigious"; "In your opinion, how likely is it that Prada/Louis Vuitton products are very prestigious"), and four 7-point attitudes scales with end-points excellent/poor, better/worse than other brands, good/bad value, and extremely un/favorable ($\alpha = .82$). Potential covariates (number of designer/counterfeit products owned), were measured but their inclusion did not impact the interactions or planned comparisons (p > .25) so were not included in reported analyses. Finally, user likability (dislike to like) and a manipulation check on social class (very low to very high) were measured on 7-point scales.

Results

Manipulation check

A manipulation check confirmed that participants viewed the target person in the "high class" condition as higher in class (M $_{HC}=4.94$, SE = .11 vs. M $_{LC}=4.04$, SE = .10, p < .01) with no impact on the product user's likeability (M $_{HC}=3.04$, SE = .15 vs. M $_{LC}=3.12$, SE = .14, p > .7).

Hypothesis tests

Results confirmed a significant interaction effect between counterfeit status and social class factors for prestige-attitudes, F(1,143)=9.74, p<.01. Post-hoc comparisons revealed that the genuine brand was rated more favorably ($M_{HC}=4.89$, SE=.09 vs. $M_{LC}=4.28$, SE=.10, p<.01) when the photo showed a higher than lower-class user of a counterfeit product. No differences emerged when the woman in the photo was described as using the genuine brand ($M_{HC}=4.61$, SE=.11 vs. $M_{LC}=4.61$, SE=.10, p>.9).

Next we investigated whether viewing an in-group member produced greater positive in-group boost effects on the genuine brand in the counterfeit than genuine brand conditions, and whether viewing an out-group member produced more negative brand denigration in the counterfeit than genuine brand conditions. Results are supportive. When participants viewed a lower class person (an out-group member) using a counterfeit (versus genuine) brand, the genuine Prada/LV brand was rated as lower in prestige-attitudes $(M_{Counterfeit} = 4.28)$ vs. $M_{Genuine} = 4.61$, p < .05), showing negative denigration (dilution) effects from the counterfeit to the luxury brand. In contrast, and perhaps surprisingly, when a higher class person was seen using a counterfeit (versus genuine) brand, the genuine brand increased in favorability ($M_{Counterfeit} = 4.89$ vs. $M_{Genuine} = 4.61$, p < .05), showing brand effects resulting from positive (enhancement) in-group boost for the counterfeit user condition. Finally, these effects of social class and counterfeit usage occurred for both Prada and LV brands; the 3-way interaction was not significant for prestige-attitudes, F (1143) = 2.32, p > .10, and planned contrasts computed for each brand separately confirmed the hypotheses.

Experiment 1b

Although the results from the first study are intriguing, they report the effects of counterfeit use by higher and lower social class members for participants in only a relatively higher class population. To test the asymmetric social hierarchy effects predicted when lower (versus higher) classes view counterfeits, Study 1b investigates the effects of counterfeit use and social class for observer participants from a relatively lower socioeconomic background.

Females aged 16-19 were recruited from three community centers within the inner-city of a large metropolitan city and paid \$5 each. We confirmed that the social class of participants was significantly lower in Study 1b than Study 1a. A chi-square revealed that the family household income was more likely to be over \$50,000 (the approximate national median) for the higher than the lower class sample (92% versus 21%, χ^2 (2, 157) = 77.82, p < .01). We also found that participants' anticipated future education/occupation (whether a college or professional degree was required for their anticipated profession) was higher for the first (Study 1a) than the second (Study 1b) population ($M_{Study1a} = 79\%$ vs. $M_{Study1b} = 18\%$, χ^2 (2, 157) = 35.12, p < .001). The 71 participants were randomly assigned to one of the 4 conditions of a 2 (genuine versus counterfeit) × 2 (social class of the user: relatively higher or lower class) between subjects factorial design. The descriptions used to manipulate social class of the users (of the genuine or counterfeit handbag) were identical to those of Study 1a except that the person in the image was replaced in Study 1b with an African American woman, to correspond to the ethnicity of participants. Due to limited sample size, only one brand (LV) was included in this study. After looking at the picture and reading the description of the product user, participants rated the LV brand on the prestige-attitudes index ($\alpha = .84$) of Study 1a. Finally, the same covariates (as in study 1a) were again unrelated to the hypothesized interaction effect (all ps > .20).

Results

Manipulation checks

A manipulation check of the social class manipulation confirmed that participants viewed the product user in the "high class" condition to be from a higher social class (M_{HC} : 5.05, SE = .22 vs. M_{LC} : 4.42, SE = .24, p = .05), while the product user's likeability was unchanged (M_{HC} : 4.53, SE = .24 vs. M_{LC} : 4.91, SE = .26, p > .2).

Hypothesis tests

A significant interaction effect was revealed for prestige-attitudes, F(1,67) = 5.24, p < .05. Post-hoc contrasts revealed that lower class counterfeit users in the photo (i.e. in-group members in this experiment) elicited significantly higher prestige-attitudes ratings ($M_{LC} = 5.35$, SE = .26 vs. $M_{HC} = 4.33$, SE = .25, p < .01) toward the Louis Vuitton genuine brand than higher-class (i.e. out-group) users. Moreover, consistent with Study 1a, when the photo showed a genuine brand user, the social class of the genuine Louis Vuitton handbag had no effect on favorable perceptions ($M_{LC} = 4.36$, SE = .31 vs. $M_{HC} = 4.60$, SE = .28, p > .50).

Next we compared participants who viewed a counterfeit user with those who viewed a genuine product user to investigate in-group boost effects (i.e. enhanced perceptions resulting from in-group counterfeit use) and brand denigration/dilution effects (i.e. reduced perceptions resulting from out-group use of counterfeits). While Study 1a found that for higher class participants, the use of a counterfeit product by out-group members can reduce perceptions of the genuine brand, the results of this study revealed that for lower class participants, consistent with social hierarchy predictions, counterfeit use by out-group members did not negatively impact evaluations of the LV brand ($M_{Genuine} = 4.60$ vs. $M_{Counterfeit} = 4.33$, p > .50). Positive in-group boost effects were also found, that is, viewing an in-group member using a counterfeit Louis Vuitton handbag enhanced perceptions of prestige-attitudes of the Louis Vuitton brand ($M_{Genuine} = 4.36 \text{ vs.}$ $M_{\text{Counterfeit}} = 5.35, p < .05$).

Discussion

Results from Studies 1a and 1b show that ratings of luxury brands were higher when an in-group (versus out-group) member was observed using a counterfeit of that brand. In addition, observing counterfeit use resulted in more favorable perceptions of the luxury brand when the product user was an in-group member, but results were asymmetric in that lower classes (Study 1b) did not denigrate the higher-class (out-group) usage of the

counterfeit. Although the population samples of Studies 1a and 1b may differ in characteristics other than social status, our conceptual explanation suggests a parsimonious account consistent with social hierarchy theory.

Experiment 2

Method

In Study 2, we extend the findings of Study 1a by allowing participants to choose a luxury brand and product. We randomly assigned 93 female students in a large Midwestern university to one of four cells of a 2 (genuine or counterfeit product) by 2 (social class of the product user: higher or lower) design. Participants began by describing a luxury product they would like to purchase in the future. Next they read a description of a female, whose social class was manipulated as described in Study 1a, and were asked to imagine that this person purchased either "the same product" or "a counterfeit version of the product using the two prestige measures used previously and three attitude measures (excellent/poor, better/worse than other brands, good/bad value) ($\alpha = .88$).

Results

Hypothesis tests using ANOVA revealed a significant two-way interaction effect for the prestige-attitudes index, F(1,89) = 4.53, p < .05. As found in Study 1a, the luxury brand was rated more favorably ($M_{HC} = 6.21$, SE = .17 vs. $M_{LC} = 5.26$, SE = .21, p < .01) when the counterfeit user was higher than lower social class, while no comparable differences emerged for the genuine brand user ($M_{HC} = 5.97$, SE = .20 vs. $M_{LC} = 5.81$, SE = .18, p > .50). Moreover, viewing counterfeit use diluted perceptions of the luxury brand when the user was described as lower in class ($M_{Counterfeit} = 5.26$ vs. $M_{Genuine} = 5.81$, p < .05), but did not enhance perceptions when she was described as higher in class ($M_{Counterfeit} = 6.21$ vs. $M_{Genuine} = 5.97$, p > .30).

Discussion

Study 2 results extend the effects of the in-group/out-group bias to the participant's choice of luxury brand and to a context with no photo of the user or brand, in a sample similar to that of Study 1a. Content analyses of brands chosen by participants indicated that most chose a brand of handbag, which confirms our selection of the handbag category as a salient choice for most participants. The next two studies provide additional support for the role of social hierarchies by investigating these asymmetries within a single pool of participants.

Experiment 3

Study 3 extends our findings in three important ways, by (a) manipulating self-perceived social class (cf. Piff, Kraus, Cote, Cheng, & Keltner, 2010), i.e. testing social hierarchical effects

within a single sample of participants, (b) incorporating behavioral indices (purchase intent and willingness to pay), and (c) using a control group with no reference to social class.

Method

We randomly assigned 250 females, recruited online through MTurk, to one of five conditions of a 2 (social class of the participant: higher-class or lower-class) × 2 (social class of the product user: higher-class or lower-class) plus control group design. In the experimental conditions, participants' own perceived social class was manipulated by first asking them to read a short article (purportedly from *The Economist*) about the effects of globalization on the social class of the average American. The articles were equal in length but varied in whether they described the average person as having a deflated (higher class condition) or inflated (lower class condition) perception of his/her actual social class. After reading the article, participants wrote about a specific instance during which they felt particularly high (low) in social class. Then they completed several demographic questions, with household income and education presented in two versions (Schwartz, Hippler, Deutsch, & Strack, 1985); participants were presented with answer choices that would enhance feelings of higher (lower) social class. Use of education and income measures of social class is consistent with prior research (Schiffman & Kanuk, 2007; Henry, 2005; Jain, 1975). A manipulation check of self-perceived social class was administered on a 0-20 sliding scale ranging from "extremely low" to "extremely high" social class.

Next, participants in the experimental conditions were shown the same photo of the LV handbag and product user (either higher or lower in social class), as described in Study 1a, and were told that the LV handbag in the picture was a counterfeit. A manipulation check of the counterfeit user's social class was administered on a 1–7 scale ("lower low class" to "upper high class"). The control condition included the same photo of the woman and handbag but referred to it as genuine LV and did not include any reference to the user's social class.

The 5-item prestige-attitudes index (α = .91) was again included. In addition, participants were provided with a list of examples of LV products (e.g. handbags, shoes, scarves, wallets) and asked two intention items, likelihood of purchase and intent to purchase a LV product, on 1–7 scales (averaged, r = .94), followed by an open-ended item asking how much they would be willing to pay (WTP) for the genuine LV handbag. Finally, participants completed the 7-item self-brand connection scale (Escalas & Bettman, 2003) (α = .97) to examine mediation, and potential covariates (i.e. age, ethnicity, counterfeit and LV ownership), particularly important for a heterogeneous online sample.

Results

Manipulation checks

Results confirmed that participants who were assigned to the higher (lower) social class conditions perceived themselves as higher (lower) in social class ($M_{\rm HiClass} = 9.10$, SE = .42 v. $M_{\rm LoClass} = 6.42$, SE = .35; t(201) = 4.93, p < .001). The counterfeit user's social class was also significantly higher when she was described as having a higher education/occupation ($M_{\rm HC} = 5.14$, SE = .08 v. $M_{\rm LC} = 3.62$, SE = .09, t(201) = 13.54, p < .001). Further, we did not find cross-effects of manipulations—i.e. the manipulation of participants' social class did not significantly influence perceptions of the user's social class (F(3,201) = 2.09, p > .15); nor did the description of the counterfeit user influence participants' reported social class (F(3,201) = 1.18, p > .25).

Hypothesis tests

To test our hypotheses, a one-way ANOVA, across five levels of the independent variable (representing the 4 participant and user social classes plus control group) revealed a significant effect for two of the three dependent variables (prestigeattitudes: F(4,245) = 1.98, p < .10; intention to buy: F(4,245) =3.83, p < .01; log-transformed willingness to pay (WTP): F(4,245) = 3.95, p < .01). Planned contrasts were performed to examine hypotheses. To test for social identity (in-group/ out-group) effects, the two conditions in which social class matched (i.e. participant higher class and user higher class [P_HU_H] or participant lower class and user lower class [P_LU_L]) were contrasted with the two conditions in which social class mismatched (i.e. participant higher class and user lower class $[P_HU_I]$ or participant lower class and user higher class $[P_IU_H]$). Consistent with social identity predictions, prestige-attitudes toward the LV brand were more favorable in matched than mismatched social class conditions ($M_{Match} = 5.68$, SE = .14 vs. $M_{Mismatch} = 5.14$, SE = .15, p < .01). Participants also showed a higher intention to buy in the matched than mismatched conditions $(M_{Match} = 3.34, SE = .16 vs. M_{Mismatch} = 2.61,$ SE = .17, p < .01) and a greater willingness to pay (M_{Match} = 2.08, SE = .08 vs. $M_{Mismatch} = 1.70$, SE = .08, p < .01).

Next, social hierarchical effects were examined with contrasts between individual participant/user conditions. As predicted, participants who were assigned to the higher-class conditions rated the brand more favorably when the counterfeit user was higher than lower class (prestige-attitudes: M_{PHUH}: 5.69 vs. M_{PHUL} : 5.12, p < .05; purchase intention: M_{PHUH} : 3.25 vs. M_{PHIII} : 2.11, p < .01; WTP: M_{PHIIH} : 2.13 vs. M_{PHIII} : 1.76, p < .05). This latter group was also significantly lower than the control condition in ratings of behavioral responses (purchase intention: $M_{Control} = 3.45 \text{ vs. } M_{PHUL}: 2.11, p < .01;$ WTP: $M_{Control} = 2.19 \text{ vs. } M_{PHUL}$: 1.76, p < .01), although not for prestige-attitudes $(M_{Control} = 5.38 \text{ vs. } M_{PHUL}: 5.12,$ p > .20). Also consistent with predictions, participants assigned to feel lower in social class did not strongly denigrate the brand when an out-group (versus in-group) member used the counterfeit, for two of the three measures (prestige-attitudes: M_{PLUL} : 5.60 vs. M_{PLUH} : 5.21, p > .05; WTP: M_{PLUL} : 1.95 vs. M_{PLUH} : 1.62, p = .05), although they did report lower intentions to buy the genuine brand when the out-group used it (M_{PLUL}: 3.13 vs. M_{PLUH}: 2.11, p < .01). Relative to the control condition, neither in-group boost nor denigration/ dilution occurred among lower-class participants, with one exception, (i.e. more negative purchase intentions when the user was higher class). See Table 1.

The mediating role of self-brand connection on prestigeattitudes, purchase intentions, and willingness to pay was evaluated using the bootstrapping technique advocated by Preacher & Hayes (Model 4, 2008; Zhao, Lynch, & Chen, 2010). Evidence of partial mediation was found for all three dependent measures. Initial results of a 5000 bootstrapped sample indicated that class condition was significantly related to the mediator, self-brand connection ($\beta = .315$, p < .001). The analysis revealed that this connection participants felt toward LV played a role in the effects of social class condition (four levels of participant/user social class) on each of the dependent variables (prestige-attitudes: 95% CI [.07 to .17]; intentions: 95% CI [.17 to .38]; WTP: 95% CI [.05 to .11]). Moreover, after controlling for this indirect effect, the direct effect of condition on willingness to pay was no longer significant ($\beta = .08$, p > .50); mediation effects were partial for prestige-attitudes ($\beta = .13$, p < .05), and intention to purchase $(\beta = .12, p < .05).$

Discussion

Using a manipulation of social class, we again find that when counterfeit users' social class matched that of the respondent, perceptions of the genuine brand were significantly more positive than when the social classes mismatched. We also find, for the first time, these same effects on behavioral intentions and willingness-to-pay, suggesting potential down-stream effects on behavior. Comparisons with the control group revealed some denigration (but not in-group boost) for behavioral indices, and primarily for higher-class users, providing qualified support for the role of social class hierarchy. Finally, mediation analyses suggested that observing an in-group (out-group) member using a counterfeit Louis Vuitton handbag increased (reduced) the personal connection that the participants felt toward Louis Vuitton which, in turn, was associated with more (less) favorable attitudes and behavioral responses toward the genuine LV brand.

Table 1 Study 3, mean (SE) responses for participants assigned to social class conditions that (mis)matched those of the counterfeit LV product user and a control group in which no user description was provided. Means with common subscripts do not differ significantly (p > .05).

	Participant: high class		Participant: low class		Control
	User: high class (N = 51)	User: low class (N = 49)	User: low class (N = 56)	User: high class (N = 45)	(N = 47)
Prestige-attitudes	5.69 _a (.173)	5.12 _b (.177)	5.60 _a (.165)	5.21 _{a,b} (.181)	5.38 _{a,b} (.181)
Int buy	3.25 _a (.23)	2.11 _b (.238)	3.13 _a (.245)	2.11 _b (.267)	3.45 _a (.267)
LogWTP	2.13 _{a,d} (.117)	1.76 _{b,c} (.119)	1.95 _{a,c,d} (.111)	1.62 _{a,c} (.121)	2.19 _{a,d} (.121)

Experiment 4

In Experiment 4 we examine further the role of product uncertainty. While the strong networks of associations and entrenched beliefs and attitudes about luxury products leave little uncertainty about important aspects, such as quality or prestige, consumers may be more uncertain about these associations when viewing counterfeit versions of the same products. Uncertainty, in turn, should create a greater reliance on external cues, such as the social class of the brand user, and subsequent brand inferences should spill over to the genuine brand.

Pretest

A pretest, using an MTurk sample of 96 females, tested and confirmed that consumers were more certain about product benefits of the genuine luxury branded product than the counterfeit version. Participants were randomly assigned to view either the genuine or counterfeit LV photo (the same image used in Study 1a), with no mention of social class. Three 0–10 certainty ratings (price, value, and quality of most handbags) were significantly higher for the genuine than the counterfeit condition (quality of most handbags: $M_{Genuine} = 8.05$, SE = .31 vs. $M_{Counterfeit} = 7.14$, SE = .29, t(94) = 2.10, p < .05; price: $M_{Genuine} = 7.62$, SE = .36 vs. $M_{Counterfeit} = 6.21$, SE = .31, t(94) = 2.92, p < .01; status: $M_{Genuine} = 7.59$, SE = .35 vs. $M_{Counterfeit} = 6.53$, SE = .34, t(94) = 2.11, p < .05), so these three items were averaged ($\alpha = .86$) as a measure of certainty/uncertainty in the main experiment.

Main experiment

Study 4 again manipulates social class of the participant, and extends the research by (a) examining whether females with greater (less) uncertainty about the counterfeit product benefits are more (less) susceptible to social grouping effects, (b) again exploring the mediating role of self-brand connection, in this case under conditions of uncertainty, and (c) examining whether perceptions of LV are more intractable for those most familiar with the brand.

Method

We randomly assigned 282 females, recruited online through MTurk, to one of four conditions of a 2 (social class of the product user: higher or lower class) \times 2 (social class of the participant: higher or lower class) randomized factorial design. Participants' own perceived social class and the counterfeit user's social class were manipulated using the same methods as in Study 3. The same manipulation checks to measure the participant's and the product user's social class, were also used, except that the scale end-points on the product user measure were reversed (i.e. with 1 as higher and 7 as lower class), so this latter scale was reverse scored before analysis. A fifth, control condition (n = 60), as in Study 3, was also added.

Dependent variables were identical to those used in Study 3 (prestige-attitudes, $\alpha = .96$; intent to buy LV, r = .93).

Participants in the four counterfeit (but not control) conditions also completed measures of (a) our *certainty index* (average rating of product quality, status, and price certainty, $\alpha = .72$), (b) the 7-item self-brand connection scale ($\alpha = .97$), (c) a number of covariates (age, ethnicity, counterfeit ownership and LV ownership), and (d) an item assessing participants' level of familiarity with LV products (a 1–7 scale from "not at all" to "very").

Results

Manipulation check

Ratings of participant's own social class confirmed that those assigned to the higher (lower) social class conditions perceived themselves as higher (lower) in class ($M_{HiClass} = 8.50$, SE = .27 v. $M_{LoClass} = 6.68$, SE = .31; t(280) = 4.45, p < .01). The counterfeit user, too, was perceived as higher (lower) in social class in the higher (lower) social class condition ($M_{HiClass} = 4.20$, SE = .07 v. $M_{LoClass} = 2.97$, SE = .07; t(280) = 12.56, p < .01).

Hypothesis tests

One-way ANOVAs across all 5 conditions revealed significant effects for prestige-attitudes, F(4,337) = 5.74, p < .01, and intentions to buy, F(4,337) = 2.66, p < .05, with a marginally significant effect for log-transformed WTP, F(4,337) = 2.13, p < .08. As in Study 3, and in support of social identity theory, contrasts comparing two social class matched conditions (mean collapsing P_HU_H and P_LU_L) with two mismatched conditions (mean collapsing P_HU_L and P_LU_H) yielded higher ratings for the former (for prestige-attitudes: $M_{\text{Match}} = 5.25$, SE = .13 vs. $M_{\text{Mismatch}} = 4.72$, SE = .15, t(151) = 2.67, p < .01; for purchase intentions: $M_{\text{Match}} = 3.64$, SE = .17 vs. $M_{\text{Mismatch}} = 3.06$, SE = .16, t(151) = 2.51, p < .05; and a marginally significant higher WTP: $M_{\text{Match}} = 2.12$, SE = .17 vs. $M_{\text{Mismatch}} = 1.96$, .17, t(151) = 1.85; p = .06).

Evidence also supported the role of social hierarchy for all three dependent measures (Table 2). Specifically, higher class participants provided more positive evaluations and behavioral dispositions toward the LV brand when they viewed a higher (versus lower) class counterfeit user (prestige-attitudes: M_{PHUH} : 5.41 vs. M_{PHUL} : 4.38, p < .01; purchase intention: M_{PHUH} :

Table 2 Study 4, mean (SE) responses for participants assigned to social class conditions that (mis)matched those of the counterfeit LV product user and a control group in which no user description was provided. Means with common subscripts do not differ significantly (p > .05).

	Participant: high class		Participant: low class		Control
	User: high class (N = 79)	User: low class (N = 70)	User: low class (N = 72)	User: high class (N = 61)	(N = 60)
Prestige-attitudes	5.41 _{a,c} (.172)	4.38 _b (.183)	5.08 _c (0.180)	5.13 _c (.196)	5.50 _{a,c} (.198)
Int buy	3.90 _a (.217)	3.12 _b (.231)	3.35 _b (0.227)	3.00 _b (.247)	3.68 _{a,b} (.249)
LogWTP	2.23 _a (.078)	1.99 _b (.083)	2.00 _b (0.082)	1.93 _b (.089)	2.11 _{a,b} (.090)

3.90 vs. M_{PHUL} : 3.12, p < .05; WTP: M_{PHUH} : 2.23 vs. M_{PHUL} : 1.99, p < .05). The same comparisons for participants who were assigned to feel lower in social class, however, failed to reach significance for all three measures, providing converging evidence that lower classes were less likely to denigrate the brand if used by out-groups/higher classes (prestige-attitudes: M_{PLUL} : 5.08 vs. M_{PLUH} : 5.13, p > .80; purchase intention: M_{PLUL} : 3.35 vs. M_{PLUH} : 3.00, p > .20; WTP: M_{PLUL} : 2.00 vs. M_{PLUH} : 1.93, p > .50). When the four groups were compared to a control condition we also found evidence of brand denigration effects for prestige-attitudes ($M_{Control}$ = 5.50 vs, M_{PHUL} : 4.38, p < .01), but no other comparisons to the control group yielded significant enhancement or dilution effects (Table 2).

Next we examined the role of uncertainty. First, we predicted that participants with greater (versus less) uncertainty would yield more to the external cue of social class. As predicted, the moderating role of counterfeit uncertainty was supported by a significant interaction effect between the four social class conditions and certainty for all three DVs (prestige-attitudes: F(3,274) = 6.31, p < .01; purchase intentions: F(3,274) = 2.73, p < .05; WTP: F(3,274) = 3.40, p < .05). A spotlight analysis on all three measures at 1 SD above and below the mean level of uncertainty (Aiken & West, 1991; Irwin & McClelland, 2001) showed that those more uncertain were more affected by the social class of the user. As shown in Table 3, those in the P_HU_H condition had more favorable perceptions, higher intentions to buy, and higher WTP than those in the P_HU_L condition. Participants in the P_LU_L condition had higher prestige-attitudes than those in the P_IU_H

Table 3 Study 4, means and standard errors for all dependent variables for participants assigned to social class conditions that (mis)matched with those of the counterfeit LV product user at High (Mean + 1 SD) and Low (Mean - 1 SD) levels of certainty about counterfeit LV handbag. Means with common subscripts do not differ significantly (p > .05).

	Means (standard error), low levels of certainty (-1 SD)				
	Participant: 1	nigh class	Participant: low class		
	User: high class (N = 79)	User: low class (N = 70)	User: low class (N = 72)	User: high class (N = 61)	
Prestige-attitudes	5.82 _{a,c} (0.262)	3.94 _b (0.262)	5.60 _a (0.256)	4.94 _{b,c} (0.274)	
Int buy	4.38 _a (0.320)	2.76 _b (0.321)	3.32 _b (0.313)	2.71 _b (0.335)	
LogWTP	2.42 _a (0.119)	1.91 _b (0.119)	2.01 _b (0.116)	1.75 _b (0.124)	

	Means (stand	lard error), high	levels of certai	nty (+1 SD)
Prestige-attitudes	5.11 _{a,b}	$4.86_{a,b}$	4.48 _a	5.35 _b
	(0.230)	(0.273)	(0.275)	(0.289)
Int buy	$3.53_{\rm a}$	3.51_{a}	$3.40_{\rm a}$	3.33_{a}
	(0.281)	(0.333)	(0.336)	(0.354)
LogWTP	$2.08_{\rm a}$	$2.07_{\rm a}$	$1.98_{\rm a}$	2.13_{a}
	(0.104)	(0.123)	(0.124)	(0.131)

condition (supporting social identity), but the two conditions were not different on the behavioral indices (supporting social hierarchy, see Table 3). Furthermore, although both higher and lower class participants were more favorable toward LV when a similar other used it, nevertheless the $P_L U_H$ group was significantly more favorable than the $P_H U_L$ group (also supporting social hierarchy).

When certainty was high, as expected, the same planned comparisons failed to reach significance, with one exception (prestige-attitudes, p < .05; purchase intention, p > .80; WTP, p > .40, Table 3); the social hierarchy effect for lower class participants actually reversed for prestige-attitudes when certainty was high; i.e. the $P_L U_H$ condition rated the LV brand more favorably than the $P_L U_L$ condition. All other effects for those both higher and lower in social class were unaffected by viewing another of a higher or lower social class.

Second, we predicted that responses of those participants with greater uncertainty would be mediated by feelings of connection to the brand. Tests of moderated mediation using a 5000 bootstrapped model (Model 8: Preacher & Hayes, 2008) indicated that social class condition was significantly related to the mediator, self-brand connection ($\beta = -.68$, p < .05), and that uncertainty moderated this effect. Using the analysis recommended by Muller, Judd, and Yzerbyt (2005), the conditional indirect effects of SBC on all measures were calculated for low and high levels of uncertainty. Among participants who were relatively more uncertain about the counterfeit product benefits, support for the role of SBC was found. Specifically, indirect effects of social class (four conditions), through SBC, on the dependent measures were significant for prestige-attitudes about LV, ($\beta = -.13$, 95% CI [-.26 to -.01]), intentions to buy, ($\beta = -.26$, 95% CI [-.50 to [-.02]), and WTP, ($\beta = -.07$, 95% CI [-.13 to -.001]). In contrast, when participants were highly certain about key benefits of the counterfeit handbag, the indirect effect was absent for all dependent measures: prestige-attitudes: ($\beta = .05$. 95% CI [-.07 to .18]); purchase intentions, ($\beta = .11, 95\%$ CI [-.14 to .33]); WTP, ($\beta = .03, 95\%$ CI [-.03 to .09]).

The moderating role of LV familiarity was tested next, and was supported by a significant interaction effect between the four social class conditions and self-reported familiarity for prestige-attitudes, F(3,274) = 3.80, p < .05, purchase intentions, F(3,274) = 3.85, p < .05, and marginally significant for WTP, F(3,274) = 2.52, p = .057. A spotlight analysis on all three measures at 1 SD above and below the mean level of familiarity (Aiken & West, 1991; Irwin & McClelland, 2001) revealed that participants were less affected by social grouping as their familiarity with the LV brand increased. As shown in Table 4, when participants had lower (versus higher) levels of familiarity with the LV brand they were more likely to show effects of social hierarchy; that is, those in the P_HU_H condition had more favorable perceptions, higher intentions to buy, and higher WTP than those in the P_HU_I condition, but no differences between participants in the P_LU_L and P_LU_H conditions. When familiarity was high, as expected, the same planned comparisons failed to reach significance (prestige-attitudes, p > .3; purchase intention, p > .6; WTP, p > .3, Table 4); in other words, familiar

Table 4 Study 4, means and standard errors for all dependent variables for participants assigned to social class conditions that (mis)matched with those of the counterfeit LV product user at High (Mean + 1 SD) and Low (Mean - 1 SD) levels of familiarity with LV. Means with common subscripts do not differ significantly (p > .05).

	Means (stand	lard error), low	levels of familia	arity (-1 SD)	
	Participant: 1	nigh class	Participant: low class		
	User: high class (N = 79)	User: low class (N = 70)	User: low class (N = 72)	User: high class (N = 61)	
Prestige-attitudes	5.71 _{a,c} (0.257)	3.85 _b (0.283)	4.85 _a (0.252)	5.33 _{a,c} (0.279)	
Int buy	3.73 _a (0.286)	2.10 _b (0.316)	2.37 _b (0.281)	2.35 _b (0.311)	
LogWTP	2.18 _a (0.110)	1.80 _b (0.122)	1.72 _b (0.108)	1.64 _b (0.120)	

	Means (stand	ard error), high	levels of famili	arity (+1 SD)
Prestige-attitudes	5.13 _a	4.78 _a	5.36 _a	4.91 _a
	(0.252)	(0.247)	(0.282)	(0.294)
Int buy	4.06_{a}	3.89_{a}	$4.59_{\rm a}$	3.73_{a}
	(0.281)	(0.275)	(0.315)	(0.328)
LogWTP	2.27_{a}	2.13_{a}	2.34_{a}	2.26_{a}
	(0.108)	(0.106)	(0.121)	(0.126)

participants both higher and lower in social class were unaffected by viewing either a higher or lower social class counterfeit user.

General discussion

In 2008, Mayor Bloomberg spoke at a press conference where an entire section of Canal Street in New York City was padlocked and approximately \$1 million dollars in counterfeit luxury goods, including knock-offs of Chanel, Gucci, Coach and Cartier, were confiscated (Hauser, 2008). In another case, Tiffany & Co sued eBay for not sufficiently monitoring luxury brand knock-off products online, but was unsuccessful in doing so; the courts placed the burden of counterfeit purchases on the brand owner (Baertlein, 2004). However, even if enforcement of counterfeits in the luxury market increases in the U.S. and globally, most experts agree that these knock-offs will continue to be a problem given the profitability of selling them.

The present research demonstrates experimentally that viewing counterfeit usage can have a significant impact on consumers' ratings of the genuine brand. Consistent with theories of social identity, when women viewed a person using a counterfeit handbag, they reported more favorable responses toward the genuine brand when that user was from an in-group than an out-group. Further, consistent with theories of social hierarchy, the effects of social class on responses were asymmetric in that observers from higher classes were more likely than those of lower classes to denigrate the luxury brand when viewing usage of the counterfeit by an out-group. While those from lower classes accepted and sometimes preferred in-group (lower-class) usage of counterfeits, they tended to not denigrate the brand when out-groups (higher-class users) used

them. We also found some in-group boost when females viewed counterfeit (as compared to genuine brand) users (Studies 1a and 1b), and, even more frequently, brand denigration/dilution due to out-group divergence when the observer was from a higher class (Studies 1a, 2, 3, and 4). These in-group/out-group effects and the asymmetry of social hierarchies extended across multiple brands, heterogeneous samples of females (students, online participants, community center attendees), and multiple approaches to examining social class. Self-brand connection (Escalas & Bettman, 2003) also appeared to play an important role, particularly when observers were uncertain about the counterfeit product benefits. When a higher-class woman viewed an out-group (in-group) member using a counterfeit product, her divergence from, or lack of connection to, the genuine brand increased (decreased). This increased (decreased) divergence corresponded with a reduction (increase) in her perceptions that the genuine brand was prestigious/favorable, her intentions to buy it, and her willingness to pay a larger amount for it. It seems possible that measuring SBC after the manipulation may have increased its role as mediator (versus moderator as in some prior research e.g. Bellezza & Keinan, 2014; Escalas & Bettman, 2003). While in our study, the experience of viewing in-group (out-group) counterfeit usage may have increased (decreased) the feeling that the genuine brand "reflects who I am", in other research SBC may function as a stable trait. In our research we found that correlations between the dependent measures the SBC mediator in Studies 3 and 4 were, respectively, r = .49 and .51 for prestige-attitudes, r = .77 and .68 for purchase intentions and r = .49 and .51 for WTP. Future research might address the role of this measure as a function of when measures were taken (e.g. before or after the experimental stimuli).

The tendency for consumers to diverge from social class out-groups is consistent with Berger and Heath's (2008) theory of identity-signaling and extends the theory to the study of counterfeits and their effects on luxury brands. However, the results also suggest that Berger and Heath's notion of social divergence may be more circumscribed or limited in scope of effects than commonly believed, for example, not varying asymmetrically based on social rank and not occurring when people are certain of the product's benefits.

The findings, in contrast, are quite consistent with theories of social hierarchy, which argue that people of both higher and lower ranks are invested in preserving the hierarchy, but that higher (versus lower) classes react more negatively when a lower- (higher-) ranked individual changes rank. Lower-ranked individuals are more likely to accept such changes (Anderson et al., 2001; Keltner et al., 2003). A noteworthy contribution to social hierarchy theories is that our results occurred when hierarchical relations were experimentally manipulated to vary as a function of comparison to others in the U.S. population. As such, the results demonstrate that social hierarchies are, to some extent, malleable, they can vary significantly depending on the setting or context, and that positions within the hierarchies are "relative" rather than absolute (cf. Piff et al., 2010). Future research might investigate alternative methods of manipulating social class (e.g. locally or globally) to determine factors affecting the relative nature of self-perceived social class.

The role of uncertainty in social hierarchies also extends prior research. When females were uncertain about what the counterfeit conveyed in terms of its quality, price, and status, they relied more on social role cues, which in turn contributed to greater (generally negative) effects on the luxury brand. That is, when uncertain, observers were more susceptible to effects of both social identity and social ranking. While prior consumer research (e.g. Hoch & Young-Won, 1986) has found that factors external to the product (e.g. advertising) are more influential when the product attributes are uncertain or ambiguous (versus certain or unambiguous), similar effects have not been tested in the context of consumers' social hierarchies or, specifically, in the context of counterfeit usage. In contrast, viewing use of the genuine brand, about which people had greater certainty, produced little or no effects of social class cues on perceptions of the luxury brand. Strong luxury brand beliefs are resistant to change and a context that adds a level of uncertainty (use of a counterfeit) may be needed to increase reliance on social class cues. Finally, consistent with prior research on brand dilution, prior familiarity with the luxury brand protected the brand from external influence. Those familiar with the brand had more intractable beliefs and attitudes, and were less likely to be persuaded by social ranking information.

Implications for luxury brand protection

What do these findings mean for companies that are trying to protect their luxury brands? First, the findings demonstrate that viewing counterfeit products can damage or dilute consumers' perceptions of the genuine brand and their likelihood of purchase, particularly when a higher-class consumer views a lower-class consumer using the counterfeit version of the brand. These dilution findings are at odds with the idea that counterfeits increase the prestige of the genuine brand by showing imitation by lower classes. Instead, the benefit occurs when the higher-class person views another in-group member using the counterfeit; when a lower-class member uses it, she will distance from the brand, and denigrate it. Companies that make luxury brands are already concerned about defrayed sales and diligently police the use of their trademarks. The present results confirm that protection of brands is important and are a cautionary note that defrayed sales are not the only cause for concern. Previous literature discussing the negative effects of counterfeit products on genuine luxury brands have focused on potentially lost substitution sales (i.e. consumers buying a counterfeit rather than the luxury brand) rather than counterfeit usage causing changes in consumers' network of beliefs about a luxury brand's prestige and favorability. Therefore, the present findings reveal a new threat to luxury brands, about which managers need to be vigilant, particularly when current and potential owners are exposed to counterfeits by dissimilar others. The importance of protecting their luxury brands is further threatened by increased prominence in the use of counterfeits globally among both lower and higher social classes (Gentry, Putrevu, & Shultz, 2006; Gosline, 2010). The recent strategic decision by many luxury products to provide more subtle and inconspicuous brand signals or to "un-brand" their products and deter lower-class individuals from stealing the brand symbols through their consumption of counterfeits (Han et al., 2010), may

help to protect the luxury brand from dilution. Future research might also examine methods used to educate consumers about counterfeit products (e.g. Friedlander, 2014; Zander, 2013).

We found that brand enhancement (positive in-group boost) was infrequent, but it nevertheless may occasionally occur when an in-group member uses a counterfeit version of a luxury brand. This finding provides a possible explanation for why luxury brand sales sometimes seem to increase as counterfeit use in the marketplace increases (Qian, 2011). Women who are observed using counterfeits are most likely women within one's own social group, and may be in emerging markets (e.g. China; Lin, 2011) where upward mobility is especially prevalent.

Finally, a limitation of the present research is that it shows only a snapshot at a single point in time. We conducted a follow-up study which found preliminary evidence for social identity effects persisting over a 24-h period (results are available in the Methodological appendix). Further research is needed to determine whether a long-lasting damaging impact occurs on consumers' perceptions of brand exclusivity when viewing counterfeit use by multiple individuals, or repeated counterfeit use by one individual, such as in emerging markets. Future research might also examine additional outcomes based on social hierarchy (e.g. responses of in-groups/out-groups that are deeply rooted with strong emotional ties) and focus more explicitly on key important luxury brand markets (e.g. current owners of genuine brands).

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Appendix A. Image and description used for stimulus in Studies 1a, 3 and 4



<u>Lower Class, Counterfeit description:</u>
Kate is 25 years of age and has been a waitress at Applebee's for 6 years.

Higher Class, Genuine description: Kate is 25 years of age and recently graduated from medical school at University of Minnesota

Appendix B. Supplementary data

Supplementary data to this article can be found online at http://dx.doi.org/10.1016/j.jcps.2016.02.004.

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