The Majority Premium: Competence Inferences Derived From Majority Consumption

IGNAZIO ZIANO

MARIO PANDELAERE

Ignazio Ziano (ignazio.ziano@grenoble-em.com) is Assistant Professor of Marketing at
Grenoble Ecole de Management, Univ Grenoble Alpes ComUE, 12 Rue Pierre Semard, 38000
Grenoble, France, and Visiting Fellow at the Marketing Department at Ghent University,
Tweekerkenstraat 2, 9000 Gent, Belgium.

Mario Pandelaere (mpand@vt.edu) is Associate Professor of Marketing at Virginia Tech,
Department of Marketing, 2016 Pamplin College of Business, Blacksburg, VA 24061, USA;
and Professor of Marketing at Ghent University, Tweekerkenstraat 2, 9000 Gent, Belgium.

Abstract

Observers infer consumers' values and personality from their consumption behaviors. Recent literature highlights the benefits of minority consumption, typically by comparing several qualitatively different options. In seven studies (total N=1,555; one pre-registered), the current research instead compares inferences derived from the acquisition of the same products, framed as either bought by a numerical minority or a numerical majority, which eliminates any potentially different associations of the majority and minority options. Majority consumers (i.e., who purchase products bought by a large majority) are perceived as more competent – but not warmer - than minority consumers. This positive effect of majority consumption on purchasers' perceived competence is mediated by expected product quality, such that the majority options appear to be of higher quality than minority options, which prompts the more favorable competence inferences about buyers. This effect persists for functional products, but not for hedonic products. The data and materials for all studies are available at osf.io/u6zmn/.

Keywords: competence, inferences, majority, minority, impression formation, product quality

1. Introduction

Recent research has documented the perks for one's impression on other people of not following the crowd when it comes to consumer behavior. Not buying what most consumers buy serves the goal of expressing a unique identity to others (Berger & Heath, 2007), such that deviating from the norm can signal status (Bellezza, Gino, & Keinan, 2014), coolness (Warren & Campbell, 2014), uniqueness (Ariely & Levav, 2000), and power (Van Kleef et al. 2011). Buying exclusive products also can cast impressions of wealth or status (Nelissen and Meijers 2011). Yet conforming to others' consumption behaviors also might offer some benefits. Specifically, consumers may be considered smarter when they buy a more popular brand (i.e., engage in majority consumption) rather than a less popular one (i.e., engage in minority consumption), due to associations of brand popularity with brand quality. For hedonic products, these associations are attenuated, and brand popularity should not lead to similar inferences of a competence premium.

We test these predictions and thus contribute to extant literature in several ways. First, previous studies that suggest one makes a better impression on others through minority (vs. majority) consumption typically compare minority choices with *qualitatively different* majority choices. That is, the minority and majority options are imbued with different associations, such as wealth, status, or norm defiance. We instead compare *qualitatively similar* options that differ solely in their popularity. Accordingly, in contrast with the prior findings of positive effects of minority behavior on observer impressions (Bellezza et al. 2014; Van Kleef et al. 2011), we document a negative influence. Second, we contribute to research on observer impressions of competence, such as social psychology investigations (Fiske, Cuddy, Glick, & Xu, 2002), by adding to the scant research on how consumer behavior shapes such inferences (Bellezza et al. 2014; Rick and Schweitzer 2013). In particular, we find that anticipated product quality informs consumer competence inferences,

but not warmth consumer inferences. Third, we investigate the impact of product domains, comparing hedonic and functional products (e.g., Botti and Iyengar 2004; Dhar and Wertenbroch 2000; Okada, 2005).

2. Minority vs. Majority Consumption

Consumers engage in minority consumption when they deviate from what most other consumers buy, such as when one member of a group out to lunch chooses a menu option that no one else in the group has tried (Ariely & Levav, 2000). Consumers particularly prefer options that are uncommon when they want to express their identity (Berger & Heath, 2007). In addition, feelings of financial deprivation increase considerations of scarce goods (Sharma & Alter, 2012), and consumers also express increased interest in more expensive, less frequently bought items when they feel powerless (Rucker and Galinsky 2009) or suffer self-esteem threats (Sivanathan & Pettit, 2010). Finally, men who pursue mating goals show a heightened interest in acquiring more expensive products (Griskevicius et al., 2007; Sundie et al., 2011).

This preference for options that few other consumers have stems from their advantages, in that deviating from what other people choose signals uniqueness (Ariely and Levav 2000), which is considered a desirable trait in Western societies (Burns & Brady, 1992). They also offer diagnostic signals about identity, better than more common options (Berger and Heath 2007). The visible consumption of expensive items affords status too (Christopher & Schlenker, 2000), which may explain the increased interest in minority goods when people experience states of powerlessness (Rucker and Galinsky 2009), lowered self-esteem (Sivanathan & Pettit, 2010), and mate goal activation (Griskevicius et al., 2007; Sundie et al., 2011). Among men, the consumption of more expensive, and thus less common, items may increase perceived attractiveness (Dunn & Searle, 2010) and compliance with dating requests (Bernard, Adelman, & Schroeder, 1991). Finally, non-conforming

consumption increases perceived autonomy, perceived status, and competence (Bellezza et al. 2014). Therefore, engaging in minority consumption has benefits for conveying favorable images of uniqueness and status.

Deviating from this stream of literature, we propose that buying popular options also may provide benefits though, because it can signal competence. That is, product quality likely serves as a cue of consumer competence, and popular items seemingly should be perceived as offering higher quality. Before we expand on these claims, we note though that this contrast with prior literature may be more seeming than real. Our proposition, associating competence with majority consumption, may be inconsistent with the idea that conspicuous consumption of expensive items affords status (Christopher & Schlenker, 2000), which presumably lead to impressions of competence. We do not contest these findings; rather, we argue that the status and thus the perceived competence acquired from conspicuous consumption depends wholly on the assumed wealth that enables it. In this study, we keep the price of the different options constant and thus exclude the perceived wealth effect as a driver of perceived status and competence.

3. Inferring Personal Features From Observed Purchases

A host of literature indicates that people are prone to infer the quality of a process on the basis of its outcome (i.e., outcome bias; Baron and Hershey 1988). For example, people infer that a surgeon is more competent if a recent surgery was successful rather than a failure, even if that surgeon follows the same procedure in both cases. When people entertain the logical proposition $X \rightarrow Y$ (e.g., competent surgeon $\rightarrow$ successful surgery), they infer Y (successful surgery) when they observe X (competent surgeon), but they also tend to infer X (competent surgeon) when they observe Y (successful surgery). That is, people think that a good (bad) process leads to a good (bad) outcome, so they both legitimately infer the quality

of an outcome according to the observed process and less legitimately infer the quality of the process on the basis of the outcome.

A similar logical procedure may cause people to reason this way when inferring consumer competence. The inference smarter consumer $\rightarrow$ better decision is obvious (Frederick, 2005), but we contend that people also routinely make the inference that better decision $\rightarrow$ smarter consumer. In consumption settings, the outcome of a decision pertains to the quality of the product or service obtained, so when assessing whether a consumer has made a competent decision, observers may judge his or her competence on the basis of the *observed* quality of the option acquired. They even might infer such competence from the *anticipated* quality of the option, as long as they can predict that quality on the basis of another cue. This mechanism can be understood as leading to –often incorrect- judgments of personal features (Gilbert and Malone, 1995), among which competence has a pre-eminent role (Fiske, Cuddy, & Glick, 2007).

Consumers draw on cues such as the price (Rao & Monroe, 1989), brand name (Aaker & Keller, 1990), and country of origin (Verlegh & Steenkamp, 1999) to infer quality, as well as on popularity and market share (Cialdini, Reno, & Kallgren, 1990; Hellofs & Jacobson, 1999). For example, they are more likely to download songs that have been downloaded many times previously (Salganik, Dodds, & Watts, 2006), buy books that appear on a bestseller list (Bao and Chang 2014; Sorensen 2007), order popular dishes in a restaurant (Cai, Chen, & Fang, 2009), and engage in late bidding to increase the chance of winning auctions as the number of viewers and bids increases (Kamins, Noy, Steinhart, & Mazursky, 2011). People also are willing to pay more for apps that appear in a top 100 list (Carare, 2012) and prefer to dine in restaurants with longer queues (Raz & Ert, 2008). Finally, consumers are more likely to buy products when few of them remain on the shelf (i.e., demand-driven scarcity, Verhallen, 1982), though abundant supply also can lead consumers to buy more, presumably

because they infer that the product must be popular (Chandon, Hutchinson, Bradlow, & Young, 2009).

These trends suggest a need to consider if popular products are perceived to offer higher quality or if scarce products and services (e.g., hand-crafted products, high-end restaurants) might be viewed as higher in quality than more popular alternatives. The assumed higher quality of scarce items derives from their higher price or cost (Lynn, 1989). If such factors are held constant, popular items instead are viewed as higher in quality. Steinhart et al. (2014) show that consumers entertain both the naive beliefs that "popular = good" and that "exclusive = good." In particular, functional products tend to elicit the former belief, but self-expressive products elicit the latter. The notion of good varies across these two alternative beliefs though, such that exclusive, self-expressive products are "good" in the sense that they can signal identity information (see also Berger and Heath 2008), but popular and functional products are "good" because their popularity offers a quality signal. Thus, we hypothesize:

> **H1**: Majority consumers (i.e., buyers of high-market share items) appear more competent than minority consumers (i.e., buyers of low-market share items).

> **H2:** Higher expectations of quality for majority products mediate consumers' perceived competence.

People do not always believe that others' opinions offer valid cues, such that they may be more likely to anticipate quality and draw competence inferences on the basis of product popularity in some domains than in others. He and Bond (2015) show that consumers penalize products that generate high word-of-mouth disagreement if the product is *taste-similar* (i.e., consumers believe that people hold similar tastes about it), but not if it is *taste-dissimilar*. Similarly, Berger and Heath (2007) find that consumers are more likely to diverge from others in identity-relevant product domains. Both these streams of research suggest that, when

products are functional and must serve an external goal, majority opinion is favored. When they are hedonic and thus terminal, more weight is given to personal tastes. We accordingly expect that observers rely on product popularity to infer product quality and consumer competence for functional products but not for hedonic products. Formally,

> **H3:** Product type (hedonic vs. functional) moderates the impact of relative market share on product quality and consumer competence inferences.

Competence and warmth are the two principal dimensions of impression formation (Abele & Wojciszke, 2007; Fiske et al., 2007) as they account for about 82% of the variance in everyday person perception (Wojciszke, Bazinska, & Jaworski, 1998). Perceived competence and warmth can be influenced in the same direction (i.e., both positively or both negatively) by the same observed features (e.g., social status is positively correlated with both competence and warmth: Cuddy, Fiske, & Glick, 2007), thereby varying together. Competence and warmth can also influence each other. Using information on one of the two dimensions (competence or warmth), people can infer information about the other dimension through two different inferential mechanisms: "halo" and "compensation". Halo effects arise when impressions on one dimension transfer to the other (e.g., someone described as very competent is also inferred to be very warm, and vice versa (Cooper, 1981; Nisbett & Wilson, 1977). Compensation effects are observed when positive information on one of the two dimensions yields negative inference on the other one, and vice versa (e.g., someone described as very competent is inferred to be rather cold; Kervyn, Judd, & Yzerbyt, 2009). This naturally leads to investigate whether relative market share may also influence warmth perceptions, and if so, to what extent. In this paper, participants are observing a decision-making process. While impressions of competence can be based on the quality of the decision-making processes in isolation impressions of warmth necessitate information on how an individual interacts with other individuals. The decisions we investigate are made in

private (i.e. in isolation) and give observers no information about the nature of the consumer's interaction with others. Observers typically make warmth inferences based on observed – or anticipated – interaction with others, not based on individual actions not involving others (Fiske et al., 2007; Wojciszke et al., 1998). Therefore, we predict

H4: Evaluated dimension moderates the effect of relative market share: relative market share positively affects competence more than warmth.

The conceptual model in figure 1 provides a graphical representation of these hypotheses. Majority consumption causes consumers to be perceived as more competent, because the products they buy seemingly are of higher quality than are minority products. When the product is a hedonic product though, majority purchases do not evoke perceptions of higher quality than minority purchases, so majority consumers of hedonic products will not be considered more competent than minority consumers.

---INSERT FIGURE 1 ABOUT HERE ---

To test these predictions, we present six experiments (and an additional one in the Online Appendix, which we briefly describe in the General Discussion). In studies 1A and 1B, we test H1 in two different ways and confirm that majority consumers are considered smarter than minority consumers with a within-participants experimental design (study 1A) and with a more conservative, between-participants experimental design (study 1B), across different products, brand names, and price levels. In study 2, we investigate mediation by

expected quality for generating competence inferences (H2) and reveal that majority products invoke higher expected quality than minority products, which leads to more perceived competence of majority consumers. Study 3 adds a quality cue (online ratings) to the options in an experimental setting, to manipulate expected quality and thereby provide direct evidence of the causal link between expected quality and perceived competence. In study 4, we test the moderation of product domain (H3) and find that when the considered product is hedonic, the positive effects of majority consumption on expected quality and perceived competence disappear. The relation between expected quality and perceived competence remains significant and positive though. In study 5, we test whether the observed effect on perceived competence extends to perceived warmth. In addition, we employ a different manipulation (with qualitative rather than quantitative wording), and we add a neutral condition. We find that the effect of choice popularity is specific to perceived competence and proportional to the share of consumers choosing a given product. In other words, consumers are perceived as more competent as the proportion of other people buying the same option increases.

4. Methods And Results

4.1. Study 1A

4.1.1. Method

Eighty participants (40 women; M_{age} = 33.8 years, SD = 9.4) were recruited from Amazon's Mechanical Turk (MTurk) for study 1A. They read a scenario containing relative market share information about two brands and two consumers' brand preferences. Between participants, we manipulated the Relative Market Share of the option (Majority/Minority), such that half of the participants read: "In a recent survey about binoculars, 9 out of 10 people chose Bushnell over Nikon. Tom chose the Nikon binocular, whereas John chose the Bushnell binocular." The other half saw a scenario that indicated that 9 out of 10 people preferred

Nikon over Bushnell, and Tom's and John's brand preferences remained unchanged. Participants then indicated whom they considered the smarter consumer on a 7-point scale, where 1 indicated "Definitely Tom," 4 was "They are equally smart," and 7 represented "Definitely John."

4.1.2. Results and discussion

In this and all the other reported studies, the respondents' genders and ages were not distributed notably differently across conditions, and these variables exhibited no effect or interaction with the independent variables. They thus are not discussed further. We also did not exclude any participants from this or any other study. The data and materials for all studies are available at osf.io/u6zmn .

We recoded the dependent variable, such that higher values indicate that the consumer bought the high-market share product (i.e., majority consumer). That is, we retained the scores for the first scenario (Bushnell was the more popular brand) but reversed them for the second scenario (Nikon was the more popular brand).

To test participants' competence inferences, we compared the average rating against the neutral midpoint of 4. A t-test showed that the average rating (M = 4.66, SD = 1.10) differed significantly from that midpoint, $t(79) = 5.38$, $p < .001$, Cohen's $d = .60$. This result held irrespective of the scenario, whether Nikon was the majority product (M = 4.75, SD = .95, $t(39) = 4.97$, $p < .001$, d = .79) or Bushnell was (M = 4.57, SD = 1.24, $t(39) = 2.94$, $p < .01$, $d = .46$. There was no statistically significant difference in competence ratings between the two scenarios (i.e., Nikon majority vs. Bushnell majority), $t(78) = .71$, $p = .48$, $d = .17$). Therefore, these participants considered the consumer buying the majority brand more competent than the consumer following a minority, in support of H1.

4.2. Study 1B

Using the within-subject comparison in study 1A may have created a situation in which participants relied on the only noticeable difference between the two target consumers (i.e., whether they bought the higher market share brand) to make their judgments, even if they normally would not rely on such information. To address this validity concern, study 1B uses a between-participants design. In addition, to establish generality, we include several product categories, price levels, and brands. These factors should not moderate our basic effect, so we predict support for H1 across the board.

4.2.1. Method

We recruited 368 participants from MTurk (152 women, M_{age} = 33 years, SD = 11) and assigned them randomly to one of the cells in our 2 (Relative Market Share: Majority Vs. Minority) × 3 (Product Category: toothbrush, power adapter, or fan) × 2 (Price Level: high vs. low) between-participants design. All participants received information on two brands within the product category, along with a clear indication of which brand was the majority or minority option. Participants also read which brand a particular target consumer had selected. To control for the possible effects of brand names, we counterbalanced them in each product category. Depending on the product to which they were assigned (toothbrush, power adapter, or fan), participants assigned to the *majority* condition read one of the following scenarios, such that brackets indicate the brand counterbalancing and braces reveal the price variations:

> In a recent survey about toothbrushes costing $3 {$15}, 9 out of 10 people chose Crest over Gum [Gum over Crest]. Tom chooses a Crest [Gum] toothbrush.

> In a recent survey about power adapter costing $10 {$50}, 9 out of 10 people chose Seasonic over Corsair [Corsair over Seasonic]. Tom chooses a Seasonic [Corsair] power adapter.

> In a recent survey about fans costing \$20 {\$100}, 9 out of 10 people chose Honeywell
>
> over Insignia [Insignia over Honeywell]. Tom chooses a Honeywell [Insignia] fan.

For the m*inority* condition, the numbers changed to "1 out of 10." Participants then evaluated Tom's competence, using four items taken from Fiske et al (2002): competent, intelligent, capable, and efficient, all on 5-point Likert scales (1 = "Not at all"; 5 = "Very"). Responses to these four items were averaged to form a perceived competence index (Cronbach's alpha = .95). Finally, participants indicated their perception of the price level on a 7-point scale (1 = "Very cheap," 4 = "Fair," 7 = "Very expensive").

4.2.2. Results and discussion

4.2.2.1. Manipulation check: price. As intended, the different price levels were associated with different price perceptions, $F(1,366) = 91.84$, $p < .001$, $M_{low} = 4.08$, SD = 1.03, $M_{high} = 5.26$, SD = 1.31.

4.2.2.2. Brand names. Brand name did not affect perceived competence for any product category—$t_{toothbrush}(121) = 1.95$, $p > .05$, $t_{power\ adapter}(122) = -.78$, $p > .40$, and $t_{fan}(119) = 1.26$, $p > .20$.. In order to examine if product names interacted with the Market Share manipulation, we ran three different two-way ANOVAs (one per product, since names were different for each product) with Market Share and Product Name as between-subjects factors. None of them yielded significant interactions, $F_{toothbrush}(1,119)=3.84$, $p>.05$; $F_{power\ adapter}(1,120)=.31$, $p=.58$; $F_{fan}(1,117)=.54$, $p=.47$. Therefore, we collapsed the analyses across names.

4.2.2.3. Competence. In an analysis of variance (ANOVA), with Product, Price Level, and Relative Market Share as the between-subjects factors, we found a significant main effect of Relative Market Share, $F(1,356) = 55.51$, $p < .001$. We found no main effect of Product, $F(2,356)= .16$, $p=.85$, or Price, $F(1,356)=.40$, $p=.53$. We found no significant two-way

interaction between Product and Market Share, $F(2,356)=1.96$, $p=.14$, and no significant three-way interaction between Product, Market Share, and Price, $F(2,356)=.44$, $p=.65$. Unexpectedly, we found a significant two-way interaction between Product and Price, $F(2,356)=4.64$, $p=.01$. In order to understand whether this affects our results, we inspected the impact of Price on competence for each of the Product considered, by conducting t-tests per product. While there was no effect of Price on Competence for power adapters and fans, we found a negative effect of Price on competence for toothbrushes (Means, Standard Deviations, t-values, p-values and effect sizes are reported in Table 1). We surmise that this is driven by the excessive price ($ 15) in the high price condition for toothbrushes –reflecting badly on the purchaser. Importantly though, Price did not interact with Market Share.

--- INSERT TABLE 1 ABOUT HERE ---

As we hypothesized, Tom was deemed more competent when he bought the higher market share brand (M = 3.64, SD = .74) rather than the minority one (M = 3.05, SD = .80), $d=.77$. This effect was not qualified by brand name, price level, or product category, so it appears quite robust and general.

4.3. Study 2: Mediation Through Expected Quality

Study 2 tests whether expected product quality mediates the effect of relative market share on perceived competence (H2). We predicted that the majority option would be viewed as higher

in quality than the minority one, which then drives the effect of market share on perceived consumer competence.

4.3.1. Method

We recruited 105 participants (65 women) on MTurk (M_{age} = 38.7 years, SD = 14.8) and assigned them randomly to a scenario in which a target consumer bought a majority or minority brand. As in study 1B, we counterbalanced the names of the brands. Participants read a scenario about two brands of e-readers and the one that a fictitious consumer Tom chose. Specifically, half of the participants read that Tom bought the majority option (with the brand counterbalanced in brackets): "In a recent survey about $50 e-readers, 9 out of 10 people chose Nook over Kobo [Kobo over Nook]. Tom buys the Nook [Kobo] e-reader." The scenario for the other half of the participants changed the numbers to "1 out of 10" to create a scenario in which Tom bought the minority option.

To measure expected quality, we asked participants to rate the e-reader Tom chose on two dimensions: Quality and Performance. Both dimensions were evaluated on 7-point scales (1 = "Really bad," 4 = "Average," 7 = "Really good"), which we averaged to form an index of expected quality (Cronbach's alpha = .98). Tom's perceived competence was measured as in study 1B (Cronbach's alpha = .94).

4.3.2. Results and discussion

4.3.2.1. Perceived competence. We conducted a 2 (relative market share: majority vs. minority) × 2 (brand name: Nook vs. Kobo, or counterbalanced factor) between-participants ANOVA on perceived competence. The results replicate the results of study 1. Again, Tom was deemed more competent when he selected the Majority brand (M = 3.69, SD = .69) rather than the Minority brand (M = 3.28, SD = .90), $F(1,101) = 6.57$, $p = .01$, $d = .50$. There was no

effect of Brand Name on perceived competence ($F < .50$, $p > .50$) or any interaction between Market Share and Brand Name ($F < 1$, $p > .30$).

4.3.2.2. Expected quality. We conducted a 2 (relative Market Share: Majority Vs. Minority) × 2 (Brand Name: Nook vs. Kobo) between-participants ANOVA for expected quality and obtained two main effects. The Brand Name effect, $F(1,101) = 5.53$, $p < .05$, reveals that participants expected Nook (M = 5.20, SD = 1.33) to be of higher quality than Kobo (M = 4.65, SD = 1.34). Moreover, we found a significant main effect of Relative Market Share, $F(1,101) = 18.34$, $p < .001$, d = .84. Expected quality was much higher when the selected brand had a higher market share (M = 5.44, SD = 1.05) rather than a lower one (M = 4.41, SD = 1.44). We found no indication of an interaction between Market Share and Brand Name ($F < .05$, $p > .90$).

4.3.2.3. *Mediation analysis.* To test if expected quality mediated the effect of relative market share on perceived competence, we used model 4 from the PROCESS macro for SPSS (Hayes and Preacher 2013); we included Brand Name as a covariate to control for the observed effect of brand name. To check the underlying process, we used bias-corrected bootstrapping to generate a 95% CI around the indirect effect of Expected quality; mediation exists if the CI excludes 0 (Hayes, 2009; Hayes & Preacher, 2013). The analysis with 10,000 bootstrap samples revealed a significant indirect effect, *ab*(SE) = .47 (.14), 95% CI [.24; .74]. The same mediation analysis without Brand Name as a covariate yields very similar results, *ab*(SE) = .44 (.13), 95% CI [.22; .72].

These results replicate those of studies 1A and 1B and also offer support for H2. Consumers appear more competent when they buy what a lot of other people buy (H1), because majority options are expected to deliver higher quality. This expectation enhances the perceived competence of purchasers of majority brands (see figure 2).

--- INSERT FIGURE 2 ABOUT HERE ---

4.4. Study 3: Moderation by Quality Cue

Study 2 demonstrated that expected quality mediates the effect of majority (vs. minority)

consumption on perceived consumer competence. However, if people infer competence from

the market share of the brand purchased due to their corresponding quality expectations, this

effect should be eliminated in the presence of a more objective quality cue that contradicts

such expectations. By doing so, we employ a causal chain design (Spencer, Zanna, & Fong,

2005), in which we directly manipulate the mediator (Quality). This is more effective than

cross-sectional mediation designs to determine the causal order of the variables of interest

(Pieters, 2017). To test this idea, we added quality ratings for both options, such that the

quality of the minority option was ranked slightly superior to that of the majority option.

Participants thus should refrain from inferring competence on the basis of market share, and

the effect of market share might be eliminated or even reversed. Study 3 thus tests H2 using

moderation rather than mediation.

4.4.2. Method

We recruited 205 participants (105 women, $M_{age} = 35.9$ years, SD = 12.2) on MTurk, then

randomly assigned them to one of the cells of the 2 (Relative Market Share: Majority Vs.

Minority) × 2 (Quality Ratings: Present Vs. Absent) between-subjects design. Half of the

participants read a scenario in which the target consumer Tom bought the majority option

(StarFloss), and the other half read a scenario in which he bought the minority option

(FreshFloss): "In a recent survey about dental floss, 9 out of 10 people chose StarFloss over

FreshFloss. Tom chooses a StarFloss (FreshFloss) dental floss." Then in the ratings condition,

the minority option (FreshFloss) was rated slightly higher than the majority option: "In a

recent survey about dental floss, 9 out of 10 people chose StarFloss (rated 4.5 stars out of 5)

over FreshFloss (rated 4.7 stars out of 5)." On the following screen, we collected the same

competence (Cronbach's alpha = .93) and quality ratings (Cronbach's alpha = .97) as in Study

2.

4.4.3. Results

4.4.3.1. Expected quality. As figure 3 indicates, the ANOVA of expected quality, with

Market Share and Quality Ratings as between-subject factors, revealed a main effect of

Relative Market Share, $F(1,201) = 24.47$, $p < .001$; a significant main effect of Quality

Ratings, $F(1,201) = 44.47$, $p < .001$; and a significant relative Market Share by Quality

Ratings interaction, $F(1,201) = 54.47$, $p < .001$. In the absence of quality ratings, participants

perceived the majority option (M = 5.62, SD = 1.00) as significantly higher in quality than the

minority option (M = 3.89, SD = 1.13), $F(1,100) = 66.62$, $p < .001$, d = 1.63. However, when

they had quality ratings to consider, they rated the majority option slightly lower (M = 5.52,

SD = 1.03) than the minority option (M = 5.86, SD = .84), $F(1,100) = 3.44$, $p = .07$, d = -.37.

4.4.3.2. Perceived competence. An ANOVA on perceived competence ratings, with

Relative Market Share and Quality ratings as between-subject factors, also yielded a main

effect of Relative Market Share, $F(1,201) = 4.24$, $p < .05$; a significant main effect of Quality

Ratings, $F(1,201) = 21.71$, $p < .001$; and a significant interaction, $F(1,201) = 12.92$, $p < .001$.

In the absence of quality ratings, participants perceived Tom as more competent if he bought

the majority option (M = 3.66, SD = .66) rather than the minority option (M = 3.10, SD =

.71), $F(1,101) = 17.07$, $p < .001$, d = .82. However, when participants knew that the minority

option had a slightly higher rating than the majority option, they rated the target consumer equally competent, whether he bought the majority option (M = 3.76, SD = .75) or the minority one (M = 3.91, SD = .71), $F(1,101) = 1.11$, $p = .30$, d = -.20.

4.4.4. Moderated mediation analysis

We also examined whether the indirect effect of Relative Market Share on perceived competence, through expected quality, was moderated by Quality Ratings, using model 7 of the PROCESS macro in SPSS (Hayes and Preacher 2013). The analysis with 10,000 bootstraps revealed a significant moderated mediation index, with a confidence interval that did not include 0, ab(SE) = -.87 (.13), 95% CI [-1.15; -.63]. The indirect effect of Relative Market Share on perceived competence through expected quality thus differs significantly, depending on the presence versus absence of external quality ratings. Without any quality cue added to the products, expected quality mediated the effect of relative market share (Majority vs. Minority) on perceived competence, ab(SE) = .73 (.10), 95% CI [.54; .95]. However, when quality cues appeared within the product presentation, this mediating effect was not significant, ab(SE) = -.14 (.08), 95% CI [-.31; .01].

The results of study 3 thus replicate those of study 2: In the absence of explicit, contrasting quality cues, people associate majority purchases with higher quality and thus with greater consumer competence. In the presence of quality ratings that suggest a minority option is superior though, the influence of market share becomes attenuated, and consumers are not judged as more competent when they buy majority options rather than minority ones. This study therefore clarifies that quality is not only a correlate of market share and competence, but an antecedent of competence.

--- INSERT FIGURE 3 ABOUT HERE ---

4.5. Study 4: Product Domain Moderation

Studies 2 and 3 show that expected quality mediates the effect of relative market share on a purchaser's perceived competence; study 4 features a boundary condition for that process. That is, the observed effect and its mediation should disappear for taste-based products, for which judgments of product quality lack any objective basis, so market share provides less proof of quality (H3). In domains considered a matter of taste, the effect of market share on expected product quality thus should disappear. It is important to clarify that, while consumers may think that there is no *objective* basis for product quality in hedonic domains, they often make *subjective* judgments of product quality in these domains, too, showing internal consistency and stable lay theories of product quality (Müller-Trede, Choshen-Hillel, Barneron, & Yaniv, 2018; Steinhart et al., 2014).

4.5.1. Method

Main experiment. We recruited 200 participants from MTurk (110 women; M_{age} = 35.7 years, SD = 13.2). The method is similar to that employed in studies 1B, 2, and 3, such that we presented the following scenarios:

> In a previous survey on MTurk about musicians, when asked to choose between Asha and Pam Croce, around 90% (10%) of the people chose Asha (Pam Croce) as the artist they prefer, and about 10% (90%) chose Pam Croce (Asha). How would you rate the 90% (10%) who chose Asha (Pam Croce)?

Participants were randomly assigned to one cell of our 2 (Product Domain: music vs. bike lights) × 2 (Relative Market Share: Majority Vs. Minority) between-subjects design. We used fictitious names that were counterbalanced (Asha and Pam Croce for musician; GordonLight and Oxygen for bike lights). Expected quality (Cronbach's alpha = .98) and perceived competence (Cronbach's alpha = .91) were measured as in study 2.

4.5.2. Results

4.5.2.1. Brand Names. We did not find any effect of artist name on perceived competence, $t(98) = -1.39$, $p = .17$, or expected quality, $t(98) = 1.04$, $p = .30$. We also did not find any effect of the bike light's name on perceived competence, $t(98) = 1.60$, $p = .11$, or expected quality, $t(98) = .60$, $p = .55$. Further, we did not find that the name of the bike light interacted with Market Share on competence, $F(1,96)=.26$, $p=.61$, or on quality, $F(1,96)=3.61$, $p=.06$. Similarly, we did not find the name of the singer interacted with Market Share on competence, $F(1,96)=.004$, $p=.95$, or on quality, $F(1,96)=1.86$, $p=.18$. Therefore, we collapsed the analyses across the counterbalanced factor of the brand/musician name.

4.5.2.2. Perceived competence. An ANOVA of perceived competence revealed a main effect of Market Share, $F(1,196) = 5.83$, $p = .02$, and a significant interaction between Market Share (majority/minority) and Product Type (hedonic vs. functional), $F(1,196) = 11.60$, $p = .001$. For bike lights (functional product), consumers were deemed more competent if they purchased the majority option (M = 3.92, SD = .59) rather than the option that few people preferred (M = 3.37, SD = .71), $F(1,96) = 18.37$, $p < .001$, d = .87. In contrast, for music (hedonic product), ratings of the target consumer did not differ whether he bought what most others did (M = 3.46, SD = .72) or what few others did (M = 3.55, SD = .69), $F(1,98) = .46$, $p = .50$, d = -.14.

4.5.2.3. Expected quality. An ANOVA on expected quality yielded a main effect of Market Share, $F(1,196) = 35.29$, $p < .001$; a main effect of Product Type, $F(1,196) = 7.69$, $p <$ .01; and a significant interaction between them, $F(1,196) = 14.58$, $p < .001$. In the bike light (functional product) condition, options evoked higher quality perceptions when they were bought by many consumers (M = 5.66, SD = .99) rather than just a few (M = 4.13, SD = 1.20), $F(1,98) = 48.16$, $p < .001$, d = 1.40. For music (hedonic product), expected quality did not differ significantly between options with many (M = 4.63, SD = 1.12) or few (M = 4.30, SD = 1.10) consumers, $F(1,98) = 2.23$, $p = .14$, d = .30.

4.5.3. Moderated mediation analysis

We examined whether the indirect effect of Market Share on perceived competence through expected quality was moderated by Product Type, using model 7 of the PROCESS macro (Hayes and Preacher 2013). The analysis with 10,000 bootstraps revealed that the moderated mediation index was significant, and the confidence interval did not include 0, *ab*(SE) = -.34 (.12), 95% CI [-.62; -.14]. The indirect effect of Market Share on perceived competence through expected quality thus differs significantly, depending on whether the product is functional (bike lights) or hedonic (music). We examined the conditional indirect effects in both Product Type conditions and found that when the product was functional (bike light), market share had a significant positive effect on perceived competence through expected quality, *ab*(SE) = .44(.10), 95% CI [.25; .67]. For the hedonic product (music), this indirect effect was eliminated, *ab*(SE) = .09(.06), 95% CI [-.02; .23].

The moderated mediation analysis assumes that product type moderates only the effect of option popularity on expected quality. To confirm that the model was not misspecified, we ran a linear regression model with Product Type, Expected Quality, and their interaction term as predictors of perceived competence, to test for moderation of the b-path. We uncovered a significant effect of Expected Quality, B = .33, SE = .05, $t(196) = 7.04$, $p < .001$, but neither

Product Type, B = .51, SE = .35, $t(196)$ = 1.47, p = .14, nor the interaction term between

Product Type and Expected Quality, B = -.11, SE = .07, $t(196)$ = -1.59, p = .11, reached

statistical significance. Therefore, the effect of expected Product Quality on perceived

consumer Competence (i.e., b-path) was not significantly moderated by Product Type.

4.5.4. Discussion

Replicating the results of studies 1–3, figure 4 summarizes the results of study 4, showing that

market share has a positive effect on expected product quality, which increases the

purchaser's perceived competence. Yet this process is conditional on whether the product is

hedonic or functional, in support of H3. If the product's quality is functional, consumers are

more likely to exhibit this effect than if the product is hedonic. For music, a hedonic product,

the effect is eliminated.

--- INSERT FIGURE 4 ABOUT HERE ---

4.6. Study 5: The Differential Impact of Relative Market Share on Competence and

Warmth

The aim of this study is three-fold. First, we want to investigate a different manipulation – a

qualitative one. In order to do so, we employ qualitative wording (e.g., "a very small

minority") in our scenarios. Second, we aim to test whether how majority and minority

consumers are considered compared to a neutral condition. In order to test this, we add a

condition in which we indicate that about half of participants bought a specific product. We

expected Perceived Competence to be linearly and positively related to Relative Market share. Third, we want to investigate whether the majority effect is unique to competence. Therefore, in this study participants had to rate purchasers on one of two dimensions – Competence or Warmth. This study was pre-registered at aspredicted.org/sd9i2.pdf.

4.6.1. Methods

4.6.1.1. Demographics. We planned to recruit 600 participants, but due an unidentified Qualtrics malfunction, we were only able to recruit 493 participants from Mechanical Turk (249 males, 244 females, Average age=37.4, Average years of education=15).

4.6.1.2. Procedure. We manipulated 2 factors between-subjects, Market Share (the share of participants who chose the product, with three conditions: Minority, Half, and Majority), and what we called Dimension (whether participants had to evaluate the consumer on Competence or Warmth). Therefore, participants were randomly assigned to one of six conditions. Participants read the following scenario in the Minority condition (in brackets, the change of wording in the Half and the Majority condition respectively):

> In a recent survey about hairdryers, **a very small minority of participants (about half/ *a very large majority*)** chose to buy BeeDry, a hairdryer priced at $29.99 on amazon.com.

> Andrew chose to buy BeeDry.

4.6.1.3. Measures. After the scenario, participants had to indicate on a slider bounded from 0 to 100, "How many people- in percentage – do you think chose BeeDry?" as a manipulation check of the Market Share manipulation.

In the next screen, participants were assigned to either the Competence or the Warmth condition, in order to avoid confounds caused by halo effects (Nisbett & Wilson, 1977) or compensation effects (Kervyn, Yzerbyt, Judd, & Nunes, 2009) that may sometimes arise in person evaluation tasks. In the Competence condition, participants had to evaluate Andrew on six items taken from Fiske and colleagues (2002): competent, capable, intelligent, efficient, skillful, and confident, anchored at 1="Not at all" and 5="Very much". Their order was randomized. In the Warmth condition, participants had to evaluate Andrew on six items taken from Fiske and colleagues (2002): warm, good-natured, sincere, friendly, well-intentioned, trustworthy, anchored at 1="Not at all" and 5="Very much". Their order was randomized.

Participants further evaluated the product on two items: quality and performance, anchored at 1="Very Bad" and 7"Very Good".

Finally, participants were asked "How much was the product quality a matter of personal taste?" on a scale anchored at 1="Not at all" and 7="Very much", to test whether the product was differently perceived as a matter of taste in different conditions. Neither Market Share nor Dimension had an effect on how much the product was perceived to be a matter of taste, nor by their interaction, all Fs<1.50, all ps>. 20, and thus we do not discuss this further.

4.6.2. Results

4.6.2.1. Manipulation check: Percentage. A one-way ANOVA showed a significant effect of Share on perceived share, $F(2,490)=266.36$, $p<.001$. Post-hoc comparisons showed that participants believed that the product was chosen by a lower percentage of people in the Minority condition ($M=21.03$, $SD=20.03$) compared to the Half condition ($M=47.90$, $SD=13.18$, $d=1.58$) and the Majority condition ($M=66.63$, $SD=19.95$, $d=2.28$, all ps <.001). The Majority and the Half condition were also different between each other, $p<.001$, $d=1.10$. We note that these values are less extreme than those we explicitly specified in other studies

(e.g., in study 1B we specified a Minority-Majority difference of 80 percentage points - 10% vs. 90% - while here we find a Minority-Majority difference in estimation of 46 percentage points). This could be responsible for the smaller effect sizes we observe in this study. Unexpectedly, a one-sample t-test against a value of 50 showed that, in the Half condition, participants estimation were slightly smaller than 50, $t(161)= -2.03$, $p=.044$.

4.6.2.2. Quality. The two items measuring quality showed high reliability ($\alpha =.96$) and were thus averaged in a quality index. A two-way ANOVA with quality as the DV and Share and Dimension as between-subjects factors showed no effect of Dimension, $F(1,487)=.19$, $p=.71$, a significant effect of Share $F(2,487)=55.65$, $p<.001$ and no interaction between Dimension and Share $F(2,487)=.25$, $p=.78$. Quality was lower in the Minority condition ($M=3.96$, $SD=1.35$) compared to the Half condition ($M=4.90$, $SD=1.06$) and the Majority condition ($M=5.28$, $SD=1.03$). Post-hoc tests showed that the quality of the Minority product was considered lower than the quality of the Half product, $p<.001$, $d=.76$, and of the Majority product, $p<.001$, $d=1.10$. The Half and the Majority condition also differed significantly, albeit with a smaller effect size, $p=.003$, $d=.36$.

4.6.2.3. Competence and Warmth. The six items measuring competence showed high reliability ($\alpha =.92$) and were thus averaged in a competence index. The six items measuring warmth showed high reliability ($\alpha =.94$) and were thus averaged in a warmth index. We combined the competence and warmth index in a single variable, to be analyzed with Dimension (Competence vs. Warmth) as a between-subjects factor.

A two-way ANOVA with Quality as the DV and Share and Dimension as between-subjects factors showed no main effect of Dimension $F(1,487)=.14$, $p=.71$, no main effect of Share $F(2,487)=1.36$, $p=.26$, and a significant interaction between Dimension and Share $F(2,487)=3.18$, $p<.05$.

We conducted two separate one-way ANOVAs – one regarding Competence, one regarding Warmth - to elucidate this interaction. Competence varied significantly across conditions, $F(2,249)=4.20$, $p=.016$. Perceived competence was lower in the Minority condition ($M=3.27$, $SD=.67$) than in the Half condition, ($M=3.43$, $SD=.68$), which in turn was lower than the Majority condition ($M=3.55$, $SD=.61$). Because we expected perceived competence to be linearly and positively related to Relative Market share, we performed two Contrast analyses, one linear and one quadratic. The linear contrast showed a significant difference across condition, $F(1,249)= 8.35$, $p=.004$, while the quadratic term was not significant, $F(1,249)=.06$, $p=.81$. These results indicate the presence of a strict linear relation, as hypothesized.

A one-way ANOVA found no omnibus effect for perceived warmth, $F(2,238)=.76$, $p=.47$. Neither the linear contrast $F(1,238)=.31$, $p=.58$ nor the quadratic contrast were significant $F(1,238)=1.23$, $p=.27$. Post-hoc tests showed no differences between conditions: in the Minority condition ($M=3.51$, $SD=.66$), Andrew was not perceived differently warm compared to the Half condition, ($M=3.37$, $SD=.73$), or the Majority condition ($M=3.45$, $SD=.66$).

4.6.2.4. Moderated mediation analysis. We performed a moderated mediation analysis using model 14 of the PROCESS macro for SPSS v3.0 (Preacher and Hayes 2013), using Market Share as multi-categorical Independent Variable, expected quality as the mediator, Person Evaluation (a variable formed by combining competence and warmth judgments) as the DV, and Dimension (whether participants had to evaluate competence vs. warmth) as a moderator of the relationship between quality and Evaluation. Since our IV is multi-categorical (0=Minority, 1=Half, 2=Neutral), the PROCESS macro generates two dummies ('X1': Minority and Majority=0, Half=1; 'X2': Minority and Half=0, Majority=1) and then runs bootstrap mediation analysis for both of them, each time using the other dummy as covariate. Because we expected different results for both quality (proportional to Market Share) and

Dimension (positively correlated with quality for competence, but not for warmth) on each of the IV levels, we expected both dummies to yield statistically significant bootstrap intervals. As intended, both dummies generated by the PROCESS macro yielded significant moderated mediation indexes, 'X1', ab(SE)=.15 (.06), 95% CI [.05; .28]; 'X2', ab(SE)=.21 (.08), 95% CI [.07; .37]. These results are in line with H4: Market Share positively affected perceived competence (but critically, not warmth) through its effect on expected quality.

4.6.3. Discussion

This study yields three major results. First, we show that the market share manipulation that we used here and the quantitative manipulation we used in earlier studies yield results qualitatively similar: they both have a positive impact on the purchaser's perceived competence. Second, we find that the magnitude of change in competence inferences is directly proportional to the size of the market share: the bigger the market share of the chosen product, the higher the competence of the observed consumer. Third, as the manipulation check results clarify, the wording we employed in these study yielded less extreme market share perceptions (e.g., the average for the majority condition was 66.6 %, while in previous studies we specified it was 90%) compared to the numerical percentages explicitly presented in prior studies – and we still observed a similar effect.

Third, we find that market share affects perceptions of consumer competence, but not perceptions of consumer warmth. This study shows that buying majority products does not impact all personal features in the same way. This also clarifies the psychological process that people go through when making judgments of this kind. Since the positive evaluations do not transfer to all personal features, they are unlikely to be motivated by observed belonging (or exclusion) or norm acceptance (or defiance), which typically influence both perceived competence and warmth in the same direction (Peeters, 1971; Stellar & Willer, 2018). This supports our initial reasoning, since competence is driven by perceptions of product quality –

and therefore caused by the evaluation of the decision-making ability of the consumer, rather than by an evaluation of the ability of the consumer of fitting in a group of people or respecting a social norm.

5. General Discussion

Prior literature has demonstrated the ample benefits of standing out through consumption choices in terms of the impression one makes on others. In something of a contrast, the present article shows that buying what many other consumers buy also is associated with impression benefits. Study 1 reveals that consumers perceive majority consumers to be more competent than minority consumers, in both joint (study 1A) and separate (study 1B) evaluations. Study 2 indicates the mediating role of perceived quality: Popular products are perceived to be of higher quality than less popular ones, and thus consumers buying popular items are considered more competent. However, when the less popular option is superior in quality, the effect of majority consumption on perceived competence no longer holds (study 3). Study 4 shows the moderating effect of product type. If a product is considered hedonic, consumers do not assume the popular option to be of higher quality, and thus consumers buying it are not considered more competent than consumers buying less popular items. Finally, Study 5 specifies that the majority effect is specific to perceived competence and does not affect perceived warmth. In addition, it shows that perceived competence is linearly related to the percentage of other consumer buying the same option.

Our research contributes to different streams of literature. We explicate the impact of consumer choices on observer inferences and contribute specifically to literature that highlights competence inferences. Prior literature indicates the negative effects of alcohol

consumption on competence impressions on others (Rick & Schweitzer, 2013) and positive effects of luxury (Nelissen and Meijers 2011) and counter-normative (Bellezza et al., 2014) consumption. These impressions may have long-lasting effects (Gilbert & Malone, 1995). We show that choices of popular items also elicit impressions of competence, providing a counterpoint to the host of benefits for impression making that were recently associated with minority consumption (Van Kleef et al. 2011; Bellezza et al. 2014). Our findings thus suggest that minority consumption may provide some benefit only if it is associated with a particular signal (e.g., wealth, identity, counter-normative behavior). Finally, we show that the effect of relative market share is specific to competence and does not extend to warmth. This elucidates the nature of this effect. Rather than being motivated by social perceptions of norm violation (Asch, 1951; Bellezza et al., 2014) – which should be affecting warmth, too, as in Peeters, 1971, and Stellar & Willer, 2018 – the effect we study is an evaluation of the decision-making ability of the observed consumer.

Our results may seem to contradict Bellezza et al.'s (2014) finding that non-conforming behavior is associated with more perceived competence than conforming behavior. By its very nature, non-conforming behavior is displayed by a minority, such that their findings imply minority behavior might be associated with higher competence. But Bellezza et al. also show that the competence premium associated with minority behavior mostly emerges with qualitatively different, normatively charged divergent choices. In our studies, we keep the product constant and change only the proportion of consumers choosing it. In this way, we keep the nature of the product constant, and strive to insulate consumers' perceptions from social norms. This also helps to show the unique contribution of this research from other work looking at relative market share (Berger & Heath, 2007, 2008). In this literature stream, product choice is driven by identity-related motives to avoid a majority choice in highly identity-relevant product domains rather than by quality expectations and

anticipation of how unknown others would perceive you. Therefore, we observe a preference for high-market share products in terms of both quality and consumer competence evaluations. For similar reasons, we provide an additional contribution compared to Shalev and Morwitz's (2012) work on low-status influencers: while in their paper, Status is manipulated as an independent variable, we choose to focus on Competence as a dependent variable. We also expect that Majority consumers will be perceived of higher Status, since Status and Competence are highly correlated (Pearson $r=.77$; Fiske et al. 2002), but this investigation falls outside of the scope of this paper.

Our work also adds to the earlier literature showing that people naturally follow a majority (Asch, 1951; Bikhchandani, Hirshleifer, & Welch, 1992, 1998; Deutsch & Gerard, 1955; Mutz, 1992). There are two theoretical accounts for why this happens. The first one involves conforming to social norms: humans have a natural tendency to conform and therefore those who conform are prized (Asch, 1951; Deutsch & Gerard, 1955). We, however, propose an account of the benefits of majority consumption that is not linked to social norms, but is rather driven by the appropriateness of the observed decision-making. Majority decisions as we intend them in our studies are not driven by pressure to conform into social norms – they are taken privately, in isolation. Observers are therefore more likely to attribute competence rather than warmth to Majority consumes compared to Minority ones – as shown in Study 5. This happens because competence is attributed to people who can make good decisions for themselves, whereas warmth is attributed to people who can make good decisions about their relationship between themselves and others - among which, conformity (Fiske et al., 2007).

Further, some benefits of following a majority opinion may be driven by a reduced uncertainty of a majority position (Bikhchandani et al., 1992, 1998). There is some similarity between the present research and the earlier work on the uncertainty-reducing capacity of

majority positions. That prior research indicates that people assume that a majority is unlikely to be very wrong and thus a majority position or choice is a safe bet. The present research similarly assumes that majority products are viewed as better products. In that sense, a majority product is not just a safe bet, but presumably the best bet. This account predicts that consumers attribute quality to a majority option – and therefore the competence of its purchasers – because they think that the majority option is less risky than the minority option. In order to address this alternative explanation, we ran Study A (a direct replication of part of Study 1B, reported in full in the Online Appendix), where we measured the perceived riskiness of the majority and the minority option, their expected quality, and the competence of their purchasers. A parallel mediation analysis shows that while minority options are indeed perceived as more risky, perceived riskiness does not mediate the impact of relative market share on competence, while quality does. This data show that riskiness and expected quality – albeit both affected by our experiment – are likely separate constructs. Further, this data shows that our account of competence impression formation - hinging on expected quality - is distinct from the riskiness account proposed by previous literature, since expected quality mediates perceived competence but perceived riskiness does not. Additionally, deviating from prior research we do not focus on consequences of majority position on choice, especially in the context of fads and fashion, but rather on the impact on observer inferences. Both theoretical accounts we mentioned explain why people follow majority opinions, but are silent on inferences made about people who follow it. Our paper addresses this literature gap.

Second, we add to literature regarding product type. In our studies, the choice of a popular item affects expected quality and inferred consumer competence for functional products but not for hedonic products, consistent with He and Bond's (2015) finding that uneven distributions of online ratings do not penalize the attractiveness of "taste-different"

products (i.e., hedonic products) the same way that they do for "taste-similar" products (i.e., functional products) and Berger's (2008) finding that people are more likely to diverge in identity-relevant domains. However, anticipated quality positively affects inferred consumer competence similarly for both hedonic and functional products.

These findings also raise several questions for continued research. First, we find that people do not associate higher quality with popularity for taste-based items, yet a host of studies indicate that people follow others' advice and behavior (Dryer and Horowitz 1997; Gino 2008; Gino, Shang, and Croson 2009; Jiang et al. 2010; Wilson and Sherrell 1993). In their study of music downloads, Salganik et al. (2006) find that the number of prior downloads affects the likelihood of subsequent downloads, for example. Two mechanisms may account for such findings. In some instances, people may have no cue other than popularity, so doing what others do seems like a safe bet. For consumers with mainstream tastes, overall popularity is at least a good indicator of whether they will like it. Even for niche tastes, relative popularity can signal how well a product will serve that peculiar taste. The other mechanism may arise because consumers treat popularity as if it were a hypothesis of quality. People tend to test hypotheses using a confirmatory approach (Kardes et al. 2004; Klayman and Ha 1987; Snyder and Swann 1978), so they may end up confirming that popular options are of high quality. For products which lack an objective quality benchmark, this confirmation may become even more likely.

Second, making decisions on the basis of popularity may seem like a good idea, but the existence of informational cascades (Bikhchandani et al., 1998) and bubble-and-crash phenomena (Abreu & Brunnermeier, 2003) indicates that it is not always. The problem is that people assume popularity results from others' independent behavior, and if most consumers independently choose the same product, it probably indicates that product is superior in quality or caters to mainstream tastes. However, in informational cascades, consumers do not

make independent choices but rather base their choices on what others have done before. This effect renders their choice uninformative, but observers lack that insight and assume that those others have made independent choices. Perhaps challenges to that assumption could disrupt the inference that the popular option offers high quality or that choosing a popular option signals competence; we leave these questions for further research.

Third, the assumption of independent thought also may underlie phenomena that testify to the power of the group. In Asch's (1951) classic study, participants were ready to follow other people's blatantly incorrect assessments. They probably were swayed by the majority position because they thought everyone else had made an independent judgment. This assumption of independent thought probably is more readily activated when people entertain an independent self-view, rather than a dependent one (Gardner, Gabriel, & Lee, 1999); that is, somewhat ironically, a majority position may affect people more when they hold an independent self-view. While highly speculative, this question raises an intriguing possibility for researchers.

We do not believe that competence inferences happen for every kind of purchase observation. Fiske's Continuum Model of impression formation (Fiske & Neuberg, 1990) distinguishes between two steps in impression formation: categorization and individuation, respectively. In the first step, observers categorize actors based on limited information. In the following step – which requires more cognitive resources and deeper processing – observers consider further information if it contradicts their initial impression. The situations we investigated fall within the realm of the first step. However, when observers confront information diagnostic of consumer competence (e.g., her occupation) which contradicts the initial impression based on observed purchase, this may attenuate the effect we document in this paper. We leave it to future research to test this idea.

Our work reveals that buying high quality products makes consumers look more competent, which also has implications for consumer welfare. People often talk about their purchases, sometimes with the intention of enhancing their own images. The way they do so might prove ineffective or counterproductive though. For example, consumers give lower-priced products worse reviews on Amazon (de Langhe, Fernbach, & Lichtenstein, 2015), seemingly because they rely on a price–quality heuristic. Flaunting what seems like a bargain might seem like an effective strategy to increase an image of competence in others' eyes, but our results suggest otherwise: such a consumer might convey that he or she is less, not more, competent than someone who buys a higher-priced item, due to the lower expected quality associated with the former. Similarly, highlighting that a product is a nonconformist choice is not necessarily an effective strategy, because others might infer that the product is of poorer quality and thus come to conclusions opposite the intentions of the focal buyer. Finally, discussing niche purchases of functional products may prove detrimental to perceptions of the buyer's competence, but no such danger exists for discussing nonconformist choices in hedonic products, or for consumer warmth. Here, other consumers are less prone to jump to quality conclusions and thus less likely to penalize niche consumers' choices.

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