Better Not Smile at the Price: 
The Differential Role of Brand Anthropomorphization on Perceived Price Fairness

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This research shows that brand anthropomorphization increases the perceived unfairness of price increases and the perceived fairness of price decreases. First, analyzing a household panel data set, the authors demonstrate the real-world consequences of brand humanization on consumers’ price sensitivity. Second, building on the theoretical premise that fairness judgments depend on consumer focus on the self versus others, they find that brand humanization enhances perceived unfairness of price increases for agency-oriented consumers, who tend to maximize their own self-interests. However, for communion-oriented consumers, who generally consider the needs of others, brand humanization increases perceived fairness of both price increases and decreases. Furthermore, as consumers’ focus on the self versus others also depends upon relationship goals, the nature of consumer–brand relationships interacts with agency–communion orientation to influence the effect of brand humanization on perceived price fairness. For example, exchange relationship norms reduce the power of brand anthropomorphization to enhance perceived fairness of price changes for communion-oriented consumers. In contrast, the communal nature of these relationships makes both agency- and communion-oriented consumers infer greater positive intent from a humanized (vs. non-humanized) brand, thus leading to a more positive effect of brand humanization on price fairness for price decreases.

Keywords: price fairness, brand anthropomorphization, agency–communion orientation, consumer–brand relationship norms
Unfavorable consumer reactions to price changes perceived as unfair may lead consumers to resist purchasing a product and, as a result, lower firm profits (Campbell 1999a; Kahneman, Knetsch, and Thaler 1986b). Thus, many studies have investigated the factors that facilitate or attenuate perceptions of price fairness. In this regard, the behavioral pricing literature suggests that the perceived motive for a price change has an important influence on consumer judgments of price fairness (Homburg, Hoyer, and Koschate 2005). It is well established that when consumers believe that a firm’s motive is to take advantage of or exploit them, they view the price as unfair (Campbell 1999a). In this realm of research, prior work has shown that consumers infer negative motives for unjustified price increases (Kahneman, Knetsch, and Thaler 1986b). Importantly, even in situations of cost-justified price changes, consumers tend to perceive price increases as unfair when the increases are in volitional control of a firm (Vaidyanathan and Aggarwal 2003). However, more recent research reports that positive brand equity can lead consumers to give the benefit of the doubt to the firm and, therefore, can trigger inferences of more positive motives for the seller’s price changes (Homburg, Hoyer, and Koschate 2005).

Nevertheless, still missing from prior research is an understanding of the effect of particular brand positioning strategies on consumer inferences of perceived price fairness. For example, Michelin, the world’s second-largest tire maker, recently claimed that it was forced to raise prices to offset an increase in costs. In the chocolate industry, Mars, the producer of M&Ms, had to implement transitional price increases. In these examples, the brand positioning strategies included endowing the Michelin and M&M brands with humanized features. Such brand anthropomorphization strategies are likely to lead to consumer perceptions that the brand has humanlike characteristics, including motivations and intentions (Epley and Waytz 2009). Considering that consumers are likely to infer a brand’s motives for price changes and that brand anthropomorphization leads to the perception that a brand has humanlike intentions, it is logical to expect that an anthropomorphic brand positioning strategy can influence consumer perceptions of motives for price changes and, as a result, price fairness. In this research, we fill this gap in the literature by exploring the effects of an anthropomorphic positioning of a brand on
consumers’ judgments of perceived price fairness.

This research offers several theoretical and managerial contributions to the brand anthropomorphization and price fairness literature. This study is the first to demonstrate that brand anthropomorphization has important implications for perceptions of price fairness, a unique context that entails judgments of whether a person has been exploited or not (Graham et al. 2011). As such, this research extends the work of Puzakova, Kwak, and Rocereto (2013), which shows a negative effect of brand anthropomorphization in a different substantive domain, product wrongdoings. Furthermore, in this research, we investigate a different moderator—namely, agency–communion orientation—that is particularly relevant to the context of price fairness because judgments of fairness depend on the focus on the self (vs. the needs of others; Skitka 2009). In contrast, Puzakova, Kwak, and Rocereto (2013) examine consumers’ beliefs in personality malleability (i.e., implicit theory) that predicts the extent to which one instance of negative brand behavior is an indication of future wrongdoings; however, it does not define consumers’ focus on the self vs. others. Therefore, in this research, we show that when consumers are self-focused (i.e., agency-oriented), they are inclined to perceive greater exploitation from a brand and a price increase as more unfair. Conversely, when consumers are other-focused (i.e., communion-oriented), they are more likely to make inferences of a more positive brand’s motive and, thus, to view price changes as more fair when a brand is humanized (vs. non-humanized). Next, our research goes beyond investigating the interaction effect of brand anthropomorphization and individual differences (e.g., Puzakova, Kwak, and Rocereto 2013) to shed more light on the role of consumer–brand relationship norms, a firm-level variable. To that end, because both relational (communion vs. agency) orientation and salient relationship goals (maximization of self-interest vs. consideration of interests of others) affect fairness judgments, our research provides new insights into how the interplay of these two constructs influences the effect of brand humanization on price fairness.

Our research also differs from that of Campbell (2007), who shows that, compared with conveying a price change with a price tag, having a human (i.e., salesperson) convey a price change
influences perceived price fairness. Specifically, Campbell (2007) focuses only on the main effect of the human versus non-human source of information on price fairness, without delving deeper into boundary conditions of this effect. In contrast, our research adds substantial insights into relational-based consumer- and firm-level boundary conditions of the effect of brand anthropomorphization on price fairness. The consideration of relational contingencies is important because humanizing a brand triggers consumers’ tendencies to perceive the brand as a vital partner in the relationship dyad (Fournier 1998). In addition, our research provides a more nuanced understanding of the underlying processes of this effect by examining consumers’ cognitive responses that reveal the occurrence of spontaneous judgments about the motives behind price changes.

Finally, to the best of our knowledge, prior studies examining either the downstream effects of brand anthropomorphization (e.g., Aggarwal and McGill 2007; Puzakova, Kwak, and Rocereto 2013) or the consequences of price unfairness (e.g., Bolton and Alba 2006; Campbell 2007) have conducted their investigations in experimental settings. In contrast, our work demonstrates critical evidence of the real-world consequences of the brand anthropomorphization effect on price sensitivity by exploring a large household panel data set. Overall, because price unfairness is related to a lower likelihood of purchasing a product (Kahneman, Knetsch, and Thaler 1986a), our research serves as a quasi-external validity check of the effect of brand humanization on actual purchasing behavior.

In summary, the main objectives of this study are threefold. First, this research demonstrates the role of brand anthropomorphization in the domain of price fairness using methodological triangulation (i.e., mall intercept interviews, household panel data analysis, and experiments). Second, this study examines consumers’ price sensitivities in the marketplace between humanized and non-humanized brands. Third, this research provides substantial theoretical and managerial insights by identifying important mediators and consumer-level (agency–communion orientation) and firm-level (consumer–brand relationship norms) moderators of the effect of brand anthropomorphization on price fairness.
**Price (Un)Fairness**

Price fairness refers to consumers’ perceived judgments of a price as just, legitimate, and reasonable (Campbell 2007; Haws and Bearden 2006). Given the negative impact of perceived price unfairness on firms’ profits (Homburg, Hoyer, and Koschate 2005; Sen, Gürhan-Canli, and Morwitz 2001), researchers have taken significant strides to address this topic. Evaluations of price fairness are comparative in nature (Homburg, Hoyer, and Koschate 2005); that is, consumers may compare prices they paid previously with current prices, with the prices paid by other consumers, or with the prices charged by competitors. Studies examining consumer responses to price discrimination are theoretically based in social comparison research and generally demonstrate that paying a higher price than another customer triggers perceptions of inequality and, as a result, greater price unfairness evaluations (Haws and Bearden 2006; Wu et al. 2012). Our research focuses on the situation when a consumer’s reference price is the price he or she was exposed to earlier in time.

Many studies in this stream of research have explained price unfairness with the dual entitlement principle (Campbell 1999a; Homburg, Hoyer, and Koschate 2005). This principle suggests that a consumer is entitled to a fair price and a firm is entitled to a certain profit. If this balance is violated, consumers perceive a firm as gaining greater profits and view the price as unfair. Thus, the core notion of this fairness judgment is that one person should not receive a gain by imposing an equivalent loss on another entity (Kahneman, Knetsch, and Thaler 1986b). This assumption is based on the premise that any concern about fairness is interpreted in terms of self-interest and the goal of maximizing one’s outcomes (Kahneman, Knetsch, and Thaler 1986a). Along these lines, when consumers observe unfair prices, they are willing to incur costs to punish unfair actions (Kahneman et al. 1986a). In this framework, research has shown that a firm’s inferred motives for increasing a price play a causal role in consumers’ perceptions of price fairness (Bolton, Warlop, and Alba 2003). For example, consumers view prices as less fair when they perceive a firm’s motive for a price increase as exploiting growing demand for a product (Kahneman, Knetsch, and Thaler 1986a). This is consistent with the notion that
consumers assume that a seller is responsible for the perceived inequity when a price change is unjustified (Xia et al. 2004). However, consumers tend to be more forgiving of price increases that are commensurate with an increase in a seller’s costs (Bolton, Warlop, and Alba 2003; Kahneman, Knetsch, and Thaler 1986b). Prior research has also found that consumers tend to underestimate the effects of inflation and an increase in the seller’s costs and, as a result, continue to view price increases as unfair (Bolton and Alba 2006). Research provides empirical evidence that consumers perceive even cost-justified price increases as unfair when they believe that the price increase is in volitional control of the seller (Vaidyanathan and Aggarwal 2003).

However, another stream of research indicates that positive brand equity leads consumers to give the benefit of the doubt to the firm and to infer more positive motive for a price increase. In general, a firm’s positive reputation, consumer trust in a firm, and satisfaction with the purchase reduce evaluations of price unfairness (Campbell 1999a; Homburg, Hoyer, and Koschate 2005). Relatedly, brand loyalty also causes consumer attributions of a price increase to be based on more positive underlying reasons (Martin, Ponder, and Lueg 2009). Our research adds a critical contribution to this body of work by investigating whether a certain type of brand positioning strategy—that is, brand anthropomorphization— Influences consumers’ inferences of a firm’s motives to change the price and, thus, affects their evaluations of price fairness.

**Effects of Brand Anthropomorphization on Price Changes**

In general, anthropomorphism involves attributing thoughts, intentions, emotions, and behaviors to nonhuman objects (Epley, Waytz, and Cacioppo 2007). Anthropomorphization of an entity activates human schemas (i.e., knowledge about an attribute formed on the basis of past experiences; Epley, Waytz, and Cacioppo 2007). As a result, by applying activated human schemas, people tend to evaluate a humanized entity’s actions in a manner similar to how they evaluate actions by other humans (Aggarwal and McGill 2012; Kim and McGill 2011). Prior research has established that ascribing human
characteristics, such as mind, to a non-human target leads to the perception that this target is capable of performing intentional actions (Puzakova, Kwak, and Rocereto 2013). For example, people perceive even slight movements by geometrical figures in a goal-motivated direction as intentional (Schultz et al. 2004). These perceptions of intentionality in anthropomorphized entities are responsible for changes in attitudes and beliefs toward humanized targets. For example, Kim and McGill (2011) demonstrate that consumer attributions of intentions to skin cancer result in greater beliefs that this entity is detrimental to consumers. Attributions of mindfulness also lead to perceptions that behavior is driven by thoughtful underlying reasons and is under the control of an actor (Caruso, Waytz, and Epley 2010). Thus, intentional actions are interpreted as a target’s motives for performing these actions because inferring motive gives meaning to an action and shapes further impressions of a target (Reeder 2009).

Furthermore, according to equity theory (Adams 1965), the concept of fairness involves judgments about the ratio of one’s inputs to outcomes in exchanges. Price increases are likely to have a negative impact on consumers’ input/outcome ratio assessments, because consumers must pay higher prices for the same outcome (i.e., product quality). As consumers try to maximize their own interests (Kahneman, Knetsch, and Thaler 1986a), they are more likely to focus on their own input/outcome ratio and to perceive the firm as taking advantage of them (Homburg, Hoyer, and Koschate 2005; Xia, Monroe, and Cox 2004). As mentioned previously, when consumers make negative inferences about the motives for a price increase, they evaluate price increases as unfair (Campbell 1999b). Overall, factors that augment consumers’ perceptions of a negative motive for a price increase should also affect evaluations of price fairness. For example, consumers tend to attribute more negative motives to a price increase when they learn about it from a salesperson (vs. a price tag; Campbell 2007). Thus, if consumers view negative reasons for a price increase, and brand humanization intensifies their tendencies to view greater motives for a behavior, they are likely to deem a price increase as less fair when a brand is anthropomorphized (vs. non-anthropomorphized).

However, with a price decrease, consumers’ attributions of a brand’s motives tend to be mixed
This is because consumers possess particular levels of skepticism about any marketer’s intentions (Forehand and Grier 2003). In general, consumers tend to consider both positive (e.g., the price decrease is due to lower costs of new technology) and negative (e.g., the product is outdated) motives for marketers’ “positive” actions (Campbell 2007). Although consumers consider both positive and negative motives for a price decrease by a non-humanized brand, we expect that consumers are likely to perceive more positive motives for a price decrease on the part of a humanized brand. In line with this contention, people generally expect positive behaviors from other people and judge these behaviors as driven by positive intent (Ybarra 2002). Similarly, the phenomenon of person-positivity bias (Moon and Conlon 2002) suggests that people’s favorable performances are given more credit than actions on the part of inanimate objects (e.g., machines). Given that the motives for a non-humanized brand’s price decrease are mixed and that the motives for a humanized brand’s price decrease are more positive, we hypothesize that brand anthropomorphization is likely to have a more favorable effect on price fairness in a price decrease condition.

H1: Brand anthropomorphization increases the perceived (a) unfairness of price increases and (b) fairness of price decreases.

Pilot Study

The goal of this qualitative pilot study is to explore consumers’ reactions to price increases on the part of either a humanized or a non-humanized brand. We conducted 14 mall-intercept interviews in front of a national retail store (7 women, 7 men; age range: 27–70 years). Respondents were paid $10 each for their participation. Each respondent viewed one of two versions (i.e., humanized vs. non-humanized) of an advertisement (see Web Appendix W1) for an actual brand of a three-dimensional 3D HD webcam, Logitech (with the price shown as 15% lower in the advertisement than the actual price listed in the store). We manipulated brand humanization using either humanized or non-humanized communications. After viewing the ad, respondents were asked to visit the store, locate the advertised product, interact with it as if they had an interest in purchasing a brand of webcams, and then return for an interview. We
recorded all interviews, which lasted from 40 to 50 minutes per informant, and then transcribed them. We analyzed the interview data using the constant comparative technique (Strauss 1987).

The first observed theme is that respondents who were presented with a humanized (vs. non-humanized) brand had more negative reactions to a price increase. They described being frustrated and disappointed, as well as perceiving the brand as trying to take advantage of them (“This brand is trying to take advantage of me, just trying to get me in, without caring about giving me a good price”). In contrast, in the non-humanized brand condition, informants tended to perceive the price increase as something expected, common, and rather typical (“I expect discrepancies in price, particularly with technology”). Furthermore, in the non-humanized condition, participants explained the discrepancy in the price between the ad and the store by providing more positive reasons. The themes were also different for female and male consumers. The emergent pattern of data shows that females tended to report less negative emotional reactions to a price increase by a humanized brand than men; they also tended to explain the price increase with more positive attributions. Web Appendix W2 provides a summary of the findings. Overall, the Pilot Study implies that there may be gender-driven variations in the effect of brand humanization on price fairness. We further conceptualize and test this possible gender interaction effect in Studies 2–4.

**Study 1**

Our main hypothesis (H1) predicts that consumers are more sensitive to price changes for anthropomorphized (vs. non-anthropomorphized) brands. That is, we expect that price increases reduce demand for a brand and that price decreases enhance demand for a brand to a greater extent when it is humanized (vs. non-humanized) because of greater perceived unfairness. In other words, price elasticity of anthropomorphized brands should be higher than that of non-anthropomorphized brands. Although prior research is mostly absent of field studies focusing on the impact of perceived fairness on actual demand, Anderson and Simester (2008) demonstrate that customer demand for a product falls when a
manufacturer increases the price and customers perceive the price as unfair. In their work, Anderson and Simester (2008) directly measure the impact of both perceived price unfairness and the pure effect of increasing the price. They find that perceived price unfairness of price increases leads to an approximately 20% loss in demand for an apparel retailer. Kahneman, Knetsch, and Thaler (1986b) show that the perceived unfairness of a price triggers a search for alternative products and that consumers are even willing to incur costs to avoid transacting with a firm whose prices they deem as unfair. Similarly, other research shows that price unfairness reduces consumers’ likelihood of shopping at a store (Campbell 1999a), affects their willingness to pay and conduct business with the firm (Xia, Monroe, and Cox 2004), and can lead to lower sales and even customer boycotts (Homburg, Hoyer, and Koschate 2005). Draganska and Jain (2006) show that retailers strategically do not charge higher prices for different product flavors, because doing so increases the elasticity of demand, due to the perceived price unfairness. Overall, because perceived price unfairness reduces demand for a product and brand anthropomorphization increases perceived unfairness of price increases and perceived fairness of price decreases, it is crucial to show that the price elasticity of anthropomorphized brands is greater than that of non-anthropomorphized brands. To do so, we use a large household panel data set to compare price sensitivity between humanized and non-humanized brands. As such, Study 1 serves as a quasi-external validity check before we examine the relationship between brand anthropomorphization and perceived price fairness in a more controlled setting.

Data and Model Specification

To estimate price elasticity of humanized and non-humanized brands, we used the IRI marketing data set (see Bronnenberg, Kruger, and Mela 2008), which Gordon, Goldfarb, and Li (2013) also analyze. These household panel data include purchasing information from residents of Eau Claire, Wis., and Pittsfield, Mass. Consistent with prior brand choice research, we constructed the IRI data set on the basis of the following parameters: First, we aggregated universal product codes into brands to have an estimable set of choices. Second, we selected only brands that contributed to a cumulative market share
of approximately 80% for analysis (for details on data set construction, see Gordon, Goldfarb, and Li 2013). While Gordon, Goldfarb, and Li (2013) explore product category-level price elasticities in conjunction with economic growth, we restructured the data set on the basis of individual brands in the time frame of 24 quarters between January 2001 and December 2006. We estimated price elasticity of demand by adopting Gordon, Goldfarb, and Li’s (2013) nested multinomial logit model with random coefficients, with the upper nest representing a household’s decision to purchase in the product category and the lower nest representing the household’s decision on brand choice (see Gordon, Goldfarb, and Li (2013) for further model specifications). Depending on category incidence \( y_{it} = 1 \), the random utility of household \( i \) that purchased brand \( j = 0, 1, \ldots, J \) during week \( t \) is

\[
U_{ijt|y_{it}=1} = \beta_{ij} - \alpha_{i1}p_{jt} - \sum_{q=2}^{Q} \alpha_{q1} I\{t \in q\}p_{jt} + \gamma_{i1}\{s_{jt-1} = j\} + \delta_{1}x_{ijt} + \epsilon_{ijt},
\]

where \( p_{jt} \) is the price and \( s_{jt} = \{0, 1, \ldots, J\} \) indicates the brand purchased on shopping occasion \( t \). To parse out any promotional effect from the price elasticity, \( x_{ijt} \) contains marketing promotion controls (i.e., the feature/display compounds, coupons). A period represents a week-store visit, and \( I \) represents 23 quarter indicators \((Q = 24)\). The outside option \((j = 0)\) for the brand-choice decision is to purchase a composite outside brand, formed as the collection of smaller brands in the category, which has a normalized utility of \( \epsilon_{i0} \).

For the category-incidence decision, the household receives utility from purchasing in the category of

\[
U_{it} = \rho'w_{it} + \psi IV_{it} + v_{it1}, \text{if } y_{it} = 1,
\]

where \( w_{it} \) includes an intercept and the number of weeks since the household’s last purchase, \( IV_{it} \) is the inclusive value from the lower decision nest, and \( v_{it1} \) is an i.i.d. logit error. The utility of not purchasing in the category \((y_{it} = 0)\) is normalized to \( v_{i00} \).

Price endogeneity is handled by using control functions. First, price, \( p_{jt} \), is decomposed as the sum of a linear combination of exogenous instruments \( Z_{jt} \) and an unobserved price shock \( \xi_{jt} \):
Second, the error term is decomposed such that $\varepsilon_{ijt} = \varepsilon_{1jt} + \varepsilon_{2jt}$ and $\xi_{jt}$ are distributed jointly normal and independent over $j$. The second component of the error term, $\varepsilon_{2jt}$, is the distributed i.i.d. extreme value. These assumptions yield a brand choice utility with the control function in the following form:

\[
U_{ijt|y_{1t}=1} = \beta_{ij} - \alpha_{i1} p_{jt} - \sum_{q=2}^{Q} \alpha_q I\{t \in q\} p_{jt} + \gamma I\{s_{jt-1} = \text{j}\} + \delta_{i} x_{i} + \lambda \xi_{jt} + \sigma \eta_{jt} + \varepsilon_{ijt}^2,
\]

where $\eta_{jt}$ is an i.i.d. standard normal error integrated out through simulation in the maximum likelihood estimation.

Prices of the brand in other markets are used as instruments. With this setup, first, the reduced-form pricing regression in Equation 3 is estimated by ordinary least squares to recover the residual $\xi_{jt}$. Second, these residuals are included as an additional regressor (control function) in the brand-choice utility equation (Equation 4), which is estimated by a mixed logit model using simulated maximum likelihood. Third, given the parameter estimates from this brand-choice stage, the category purchase incidence model in Equation 2 is estimated.

**Analysis and Findings**

For our main analysis, we included only the product categories in which at least one of the brands in a product category has been consistently humanized in the marketplace. To categorize the brands as either humanized or non-humanized, we used two judges who independently coded each brand on the basis of several indicators used in prior research (Kim and McGill 2011): (1) the use of a human (vs. object) brand name (e.g., Celeste vs. Tombstone), (2) the use of human (or humanized) images on a package (e.g., Red Baron vs. Roma), and (3) the use of humanized brand communications (e.g., the Brawny character in Brawny brand communications). The agreement between judges was 98%, and
disagreements were resolved by discussion. In the end, we identified six product categories that met the
criteria: frozen pizza, margarine/spreads/butter, paper towel, potato chips, toilet tissue, and yogurt.\(^1\)

Next, in order to provide a more rigorous validation of our brand anthropomorphization
categorization scheme, we recruited 599 nonstudent participants using Amazon’s Mechanical Turk
online panel. All participants were U. S. residents. For the assessment of brand anthropomorphism,
participants provided their level of agreement with the following statements: “It seems almost as if
[brand] has (1) its own beliefs and desires, (2) consciousness, (3) a mind of its own” (1 = “strongly
disagree,” and 7 = “strongly agree”). Participants then rated the extent to which [brand] had come alive
(like a human). We summed the responses to these four items, which showed acceptable reliability
coefficients across all six product categories (\(\alpha_{\text{frozen pizza}} = .95\); \(\alpha_{\text{margarine/spreads/butter}} = .93\);
\(\alpha_{\text{paper towel}} = .97\); \(\alpha_{\text{potato chips}} = .91\); \(\alpha_{\text{toilet tissue}} = .96\); \(\alpha_{\text{yogurt}} = .95\)). The results confirm our brand anthropomorphization
categorization scheme; participants reported significantly higher scores on the scale for the brands
categorized as humanized than for those categorized as non-humanized in all six product categories (for
details, see Table 1). Furthermore, in contrast with Gordon, Goldfarb, and Li (2013), we excluded
private-label and outside brands from each product category in our data analysis. The number of
remaining brands in each product category ranged from three to seven, and we included all these brands
in the final analysis. The number of purchase incidences ranged from 63,066 for frozen pizza to 123,807
for potato chips during the six-year time frame (Table 1).

With this brand anthropomorphization categorization, the results show a consistent pattern of
consumer price sensitivity to anthropomorphized versus non-anthropomorphized brands. The overall
price elasticities for humanized brands were significantly higher than those for non-humanized brands
(frozen pizza\(_{\text{anth}} = -1.119\) vs. frozen pizza\(_{\text{non-anth}} = -0.731\); margarine/spreads/butter\(_{\text{anth}} = -1.637\) vs.
margarine/spread/butter\(_{\text{non-anth}} = -1.504\); paper towel\(_{\text{anth}} = -0.657\) vs. paper towel\(_{\text{non-anth}} = -0.146\); potato

\(^1\) One of the brands in the yogurt product category, Wells Blue Bunny, manufactured and sold refrigerated yogurt (e. g., Wells
Blue Bunny Lite 85) during the IRI data collection period. Thus, although the Wells Blue Bunny brand is known for selling
frozen yogurts, it is valid to compare this brand with other refrigerated yogurt brands in our data analysis.
chips$_{\text{anth}} = -1.108$ vs. potato chips$_{\text{non-anth}} = -.847$; toilet tissue$_{\text{anth}} = -1.207$ vs. toilet tissue$_{\text{non-anth}} = -.952$; yogurt$_{\text{anth}} = -1.958$ vs. yogurt$_{\text{non-anth}} = -1.480$; $\rho s < .05$). An additional quarterly analysis of price elasticities (Table 2) reveals a similar pattern; in general, humanized brand elasticities were greater than those of non-humanized brands across 24 quarters.

[insert tables 1 and 2 about here]

**Discussion**

Study 1 provides critical real-world evidence in support of H1. Analysis of the household panel data reveals that humanized brands have significantly higher price elasticities than non-humanized brands across all six product categories. Although the household panel data set did not include a direct measure of price fairness as the linkage between brand humanization and brand choices during instances of price changes, our findings show that perceived price fairness is a primary driver of the magnitude of price elasticities. That is, we find that higher price elasticities associated with humanized brands are a strong indicator that consumers perceive price increases by these brands as less fair and price decreases as more fair than price increases by non-humanized brands. We further examine the important role of brand anthropomorphization on price fairness in the subsequent controlled laboratory experiments.

**Effects of Agency–Communion Orientation on Perceived Price Fairness**

H1 assumes that consumers strive to maximize their self-interests and focus on their own input/outcome ratio in evaluating prices (Homburg, Hoyer, and Koschate 2005). That is, consumers are likely to believe that a price increase has a negative impact on their input/outcome ratio because they must pay higher prices while their outcome remains the same. This view is consistent with the core premise of the equity principle that people strive to maximize their self-goals and interests and expect that a balance should be maintained in the ratio of contributions to outcomes among those involved in the interactions (Kahneman, Knetsch, and Thaler 1986a).

However, prior research in social psychology has shown that certain people are less likely to be
driven by the motive to maximize their self-interests and more likely to consider the perspectives, interests, and needs of both parties involved in the exchange (Skitka 2009). In this regard, justice reasoning theory posits that how people think and interpret fairness is contingent on which values they are using to understand the current situation (Skitka 2009). Overall, prior research indicates that people’s motivations and values are organized and regulated by their views of self (Skitka and Wisneski 2012). Specifically, people’s values can range in focus from the self (i.e., one’s own interests and goals) to other-oriented values and goals (Skitka 2009). In this research, we concentrate on agency–communion orientation, which determines the extent to which people put relative emphasis on self- or other-oriented goals and values (Helgeson 1994; Kurt, Inman, and Argo 2011). Agency orientation refers to a person’s tendency to hold a view of the self that reflects his or her individuality and emphasizes internal attributes and the separateness from others (Helgeson 1994). In contrast, communion orientation reflects a person’s view of the self as being embedded in the fabric of social relationships and in the connectedness of the self with others (Kurt, Inman, and Argo 2011). Accordingly, agency orientation includes characteristics such as self-assertion, instrumentality, and self-confidence, whereas communion orientation manifests itself in qualities such as selflessness, cooperativeness, and concern for others (Spence, Helmreich, and Holahan 1979). In summary, agentic people strive to differentiate themselves from others and put more emphasis on their self-interests (Wiggins 1991), whereas communion-oriented people attend to and are concerned about relationships with others; they are motivated to maintain interpersonal harmony and to protect the unity with others (Kurt, Inman, and Argo 2011).

Overall, justice reasoning theory states that people are more likely to focus on maximizing their own self-interests in evaluating the fairness of a situation when they are motivated by their immediate and rational self-goals (Skitka and Wisneski 2012). In contrast, when the dominant motivation is building harmonious relationships with others, people are less likely to emphasize their own goals and interests in judging fairness and, instead, are more to likely to consider the needs and interests of others in an exchange (Lerner 1975). In this regard, Lerner (1975) argues that the underlying function of
fairness should be viewed not in terms of maximizing one’s own interests but rather in maintaining the continuity of interpersonal relationships. Prior studies have also exemplified this contingency. For example, males (more agency-oriented; Kurt, Inman, and Argo 2011) tend to allocate resources based on the equity principle (i.e., maximizing self-interests) to a greater extent than females (more communion-oriented; Murphy et al. 1984). Similarly, considering others’ needs in allocating resources is more prevalent in more relational societies (e.g., China) because of the greater stress put on interdependence among people (Murphy et al. 1984). In contrast, in individualist societies (e.g., the United States), people are less apt to consider others’ needs in distributing resources because of the cultural importance of independence and self-sufficiency.

Given that the view of self influences fairness judgments, we expect that when agentic people observe a price increase, due to a greater emphasis on their self-interests, they are more likely to be concerned with the inequity in their own input/output ratio and to infer that the brand is taking advantage of them. As discussed previously, anthropomorphism enhances perceptions of intentionality and underlying motives. Thus, agentic people are more likely to infer a brand’s motive to take advantage of them and, as such, are more likely to view a price increase by a humanized (vs. non-humanized) brand as more unfair. In contrast, communion-oriented people are more likely to assess fairness not to establish blame and to punish, but rather to maintain the continuity of interpersonal relationships in the long run (Lerner 1975). Because communal people are more likely to consider the perspectives and needs of the other person involved in the relationship, we anticipate that they also care about the humanized (vs. non-humanized) brand’s needs, such as the brand’s own input/output ratio (e.g., a supplier had to increase costs of materials). This is also in accord with anthropomorphism theory, which indicates that anthropomorphizing a non-human entity enables people not only to infer intentions in this entity and blame it for its actions but also to perceive this humanized entity as having certain experiences and needs that are usually viewed only in humans (Epley and Waytz 2009). Tam, Lee, and Chao (2013) argue that people are more likely to show concern for a non-human entity (e.g., nature) when it is
anthropomorphized than when it is not. As such, we expect that communion-oriented consumers are more likely to give a humanized brand the benefit of the doubt and are more likely to make more positive inferences about motives for a price increase for an anthropomorphized (vs. non-anthropomorphized) brand. Note that we do not expect communal consumers to evaluate the fairness of price increases through greater consideration of a brand’s input/outcome ratio when a brand is non-anthropomorphized. This is consistent with (1) justice theory, which postulates that the equity principle of evaluating fairness is applied in the context of impersonal exchanges (Skitka 2009), and (2) anthropomorphism theory, which indicates that people consider an entity’s needs only when it is humanized. Thus, if communion-oriented consumers are more likely to consider a humanized brand’s input/output ratio and to infer more positive motives for a price increase, they are more likely to view price increases as more fair when a brand is humanized (vs. non-humanized).

Furthermore, with respect to a price decrease, we argued previously that consumers are more likely to attribute more positive intent to a humanized (vs. non-humanized) brand. However, individual differences in agency–communion orientation suggest that communion-oriented people are more likely to consider others’ positive intent regarding a positive action than agency-oriented consumers. This reasoning is based on prior research that indicates that communion-oriented consumers possess a greater propensity to recognize acts of goodwill by others and to express their appreciation of positive actions than their agency-oriented counterparts (Kashdan et al. 2009). These dissimilarities emanate from differences in socialization practices. In particular, communal people tend to engage in more caretaking roles and to perceive interdependence, maintenance, and harmony in relationships as important. In contrast, agency-oriented consumers are more self-focused and tend to be less sensitive to positive interpersonal cues (Eagley and Crowley 1986). In support of these claims, prior research has also shown that communion-oriented people express more gratitude (i.e., a feeling induced when people credit others for a positive action) in social relationships (Kashdan et al. 2009). Overall, because communion-oriented consumers recognize positive intent in others’ favorable actions, brand
anthropomorphization is more likely to increase their perceptions of fairness of price decreases. In contrast, because agency-oriented consumers tend not to view greater positive intent from others’ positive actions, we expect to find no differences in price fairness evaluations for agentic consumers when a brand is either humanized or non-humanized.

H2: Agency–communion orientation moderates the interaction effect of brand anthropomorphization and price change on price fairness. (a) For agency-oriented consumers, brand anthropomorphization (i) increases the perceived unfairness of price increases and (ii) does not influence the perceived fairness of price decreases. (b) For communion-oriented consumers, brand anthropomorphization increases the perceived fairness of both (i) price increases and (ii) price decreases.

Study 2

First, Study 2 aims to establish internal validity of the brand anthropomorphization effect on price fairness (H1) in a controlled experimental setting. A second goal is to examine the moderating role of agency–communion orientation (H2). Study 2 uses gender as a proxy for this orientation. According to prior research (Guimond et al. 2006; Kurt, Inman, and Argo 2011), agency orientation is more characteristic of males, whereas communion orientation tends to be descriptive of females. Third, Study 2 aims to investigate the underlying mechanisms of this effect in greater detail by analyzing participants’ spontaneous cognitive responses. Finally, Study 2’s goal is to demonstrate the marketing consequences of differences in fairness perceptions by including a behavioral intentions measure (i.e., purchase intentions).

Participants, Design, and Procedure

One hundred fifty-seven undergraduate students participated in Study 2 in exchange for extra credit. Participants were asked to imagine a purchasing situation in which they were searching for a coffeemaker. Then, respondents viewed one of two (i.e., anthropomorphized vs. non-anthropomorphized) versions of an ad for a fictitious brand of coffeemakers, Aroma. Next, they reported their brand attitudes. On the following page, they were asked to imagine that they had decided to visit the brand’s website, Aroma.com. Next, they viewed the Aroma.com website on which the
coffeemaker was priced at $54.99. After looking at the website, half the participants learned that the price had increased (by 20%), and half learned that it had decreased (by 20%) (e.g., “A week later you decide to visit the Aroma.com website again and discover that the price has changed from $54.99 to $65.99”). These price changes are consistent with prior research (Homburg, Hoyer, and Koschate 2005) and within the range of market price distributions for coffeemakers. After being exposed to the price change, participants provided their evaluations of price fairness. Next, we collected participants’ open-ended thoughts in an effort to investigate the processes underlying fairness judgments. After the thought-elicitation task, we collected a measure of purchase intentions. Finally, we administered the manipulation check on anthropomorphism and the price change and then collected demographic variables. The survey ended with a demand probe; none of the participants correctly guessed the true research question.

**Stimulus Materials**

Consistent with prior research (Puzakova, Kwak, and Rocco 2013), we manipulated brand anthropomorphization using the combination of visual and verbal humanlike elements (Figure 1). In doing so, we also recognized that an anthropomorphization manipulation could have inadvertently created a more lighthearted brand personality than a non-humanized brand and that this could have led to the perceptions that a humanized brand’s price increase is more disingenuous. Thus, we conducted an additional experiment to ensure that this confounding effect did not occur. To ensure that participants did not perceive a price increase as inconsistent with a more friendly and lighthearted anthropomorphized brand, we measured brand lightheartedness, friendliness, and disingenuousness (i.e., the extent to which a brand’s actions appear inconsistent with its personality; Wood et al. 2008). However, including the main and interaction effects of these variables in our analysis as covariates failed to alter the findings.

**Measures**

We measured price fairness with four items (i.e., 1 = “unfair, unjust, unreasonable, unacceptable,” and 7 = “fair, just, reasonable, acceptable”; α = .96), adopted from Bolton et al. (2010).
We assessed purchase intentions with two items (i.e., “It is likely that I will buy the Aroma brand of coffeemakers” and “I can imagine buying an Aroma coffeemaker”; $r = .75, p < .05$). For the manipulation check on anthropomorphism, we used the same items as in Study 1 ($\alpha = .88$). We measured brand attitude with four items (e.g., 1 = “unfavorable, unpleasant, bad, dislike,” and 7 = “favorable, pleasant, good, like”; $\alpha = .94$).

**Results**

**Manipulation checks.** We conducted a 2 (price decrease vs. price increase) × 2 (anthropomorphized vs. non-anthropomorphized brand) between-subjects analysis of variance (ANOVA) on the perception of the brand as a human. As we expected, participants in the humanized (vs. non-humanized) brand condition perceived the brand as more humanlike ($M_{\text{anth}} = 3.85$, $M_{\text{non-anth}} = 3.39$; $F(1, 152) = 4.16, p < .05$). No other main or interaction effects were significant ($p > .10$). The results also showed no significant differences in brand attitudes between the two conditions ($M_{\text{anth}} = 5.28$, $M_{\text{non-anth}} = 5.20$; $F(1, 154) = .23, p > .10$). All participants correctly noted the prices presented both in the ad and on the website. They reported that the price of the Aroma coffeemaker on the website had increased from the price in the ad in the price increase condition ($M = 6.37$; $t(89)_{\text{diff from } 4} = 23.85, p < .05$) and had decreased in the price decrease condition ($M = 6.05$; $t(64)_{\text{diff from } 4} = 13.41, p < .05$).

**Hypothesis tests.** We performed a 2 (price change: increase, decrease) × 2 (brand anthropomorphization: anthropomorphized brand, non-anthropomorphized brand) × 2 (gender: females, males) ANOVA on price fairness as the dependent variable. Consistent with $H_1$, we found a significant interaction between price change and brand anthropomorphization ($F(1, 149) = 9.19, p < .05$). We followed up with an analysis of planned contrasts. In the price increase condition, participants evaluated the price as less fair when they were exposed to an anthropomorphized (vs. non-anthropomorphized)

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2 To ensure that brand anthropomorphization does not increase brand attitudes, we collapsed data across all three studies reported herein to test whether brand anthropomorphization’s effect on brand attitudes remains statistically nonsignificant with a greater statistical power. The results show that brand anthropomorphization does not affect brand attitudes ($M_{\text{anth}} = 5.63$, $M_{\text{non-anth}} = 5.62$; $F(1, 664) = .005, p > .94$), indicating that brand humanization’s effect on price fairness is not due to increased brand liking. The study × brand humanization interaction effect was also nonsignificant.
brand (\(M_{\text{anth}} = 2.91, M_{\text{non-anth}} = 3.35; F(1, 149) = 4.92, p < .05\)). In the price decrease condition, consumers evaluated the price as more fair when the brand was anthropomorphized (vs. non-anthropomorphized) (\(M_{\text{anth}} = 5.77, M_{\text{non-anth}} = 5.29; F(1, 149) = 4.36, p < .05\)). Furthermore, a three-way interaction among brand anthropomorphization, price change, and gender was significant (\(F(1, 149) = 4.85, p < .05\)). Planned contrasts showed that males viewed a price increase as less fair when the brand was humanized (vs. non-humanized) (\(M_{\text{anth}} = 2.56, M_{\text{non-anth}} = 3.97; F(1, 149) = 20.08, p < .05\)). The opposite was true for females (\(M_{\text{anth}} = 3.25, M_{\text{non-anth}} = 2.73; F(1, 149) = 4.29, p < .05\)). When the price decreased, females evaluated the price as more fair when a brand was humanized (vs. non-humanized) (\(M_{\text{anth}} = 6.05, M_{\text{non-anth}} = 5.28; F(1, 149) = 5.17, p < .05\)), whereas the effect was nonsignificant for males (\(M_{\text{anth}} = 5.49, M_{\text{non-anth}} = 5.30; F < 1\)).

Cognitive responses. Two judges coded open-ended thoughts independently. We employed two schemas for thoughts coding. First, we coded thoughts as 1 when a participant provided any motives for a price change (e.g., “Increase in production costs?”) and as 0 when no inferences of a motive were generated (e.g., “I will be upset and not buy this product”). Second, we coded thoughts as negative (e.g., “I felt betrayed by the seller”), positive (e.g., “The product is selling well and more people have probably heard good things”), or neutral (e.g., “I personally do not drink coffee”). The total number of thoughts generated was 327. The level of agreement between the two judges was 93%, and disagreements were resolved by discussion.

Consistent with our expectations, there was a significant association between brand anthropomorphization and whether or not participants spontaneously inferred motives for a price change (\(\chi^2(1) = 4.39, p < .05\)). Overall, the cognitive response data showed that 56.3% of participants who viewed a humanized brand spontaneously generated reasons for a price change, whereas only 39.5% of those exposed to a non-humanized brand did so. Next, we created a cognition valence index by subtracting positively valenced thoughts from negatively valenced thoughts. This index enabled us to
assess not only the direction of thoughts but also the relative magnitude of each participant’s thoughts. Greater values on this index indicate more negatively valenced thoughts, whereas lower values reflect more positively valenced thoughts. To examine the mediating effect of the cognition valence index, we ran an integrated regression model using a bootstrapping approach, with brand humanization, price change, gender, and all possible interactions among them as the independent variables, price fairness as the dependent variable, and cognition valence index as the mediating variable. We tested the moderated mediation model using the PROCESS macro (model 12; Hayes 2013). The results revealed a significant indirect effect of a three-way interaction among brand humanization, price change, and gender on price fairness through the cognition valence index (a point estimate of the effect = .13; 95% confidence interval [CI] [.02, .29]). Next, we found that males generated more negative thoughts and females reported more positive thoughts in the price increase condition when a brand was humanized (vs. non-humanized). That is, the bootstrapping mediation analysis revealed a significant indirect path from brand anthropomorphization to price fairness through cognition valence for males (a point estimate for the effect = –.25; 95% CI [–.44, –.10]) and for females (a point estimate for the effect = .09; 95% CI [.002, .23]) in the price increase condition. This path was also significant for females in the price decrease condition (a point estimate for the effect = .14; 95% CI [.02, .32]). That is, females generated more positive thoughts when a brand was humanized (vs. non-humanized) in the price decrease condition.

Purchase intentions. We used the aforementioned model to examine the mediating role of price fairness on purchase intentions. The results showed a significant indirect effect of a three-way interaction among brand humanization, price change, and gender on purchase intentions through perceived price fairness (a point estimate of the effect = .16; 95% CI [.02, .36]). We found a significant indirect path from brand humanization to purchase intentions through perceived price fairness for male participants in the price increase condition (a point estimate of the effect = –.35; 95% CI [–.58, –.17]) and for female participants in the price decrease condition (a point estimate of the effect = .21; 95% CI
The indirect paths for female participants in the price increase condition and for male participants in the price decrease condition were nonsignificant.

**Discussion**

Study 2 shows that brand anthropomorphization increases perceived unfairness of price increases and perceived fairness of price decreases. These findings extend Campbell’s (2007) research insofar as they (1) provide evidence of the effect of humanized brand positioning (vs. the source of information) on price fairness, (2) outline the role of consumers’ spontaneously generated cognitive thoughts in mediating the effect of brand humanization on price fairness, and (3) shed light on the moderating effect of gender as a proxy for agency–communion orientation. With regard to the last point, our research indicates that firms targeting male (vs. female) consumers should expect more negative reactions to price increases. Thus, male and female target audiences may require different communication approaches regarding price changes. In addition, Study 2 addresses a call from prior research (Homburg, Hoyer, and Koschate 2005) by delivering further insights into the conditions under which consumer are more likely to spontaneously generate motives for price changes. Because a humanized entity’s actions are viewed as more intentional (Epley and Waytz 2009), consumers are more likely to spontaneously generate motives for a price change. Furthermore, although the results show that higher perceptions of fairness of price decreases when a brand is humanized (vs. non-humanized) translate into higher purchase intentions for communion-oriented consumers (i.e., females), we do not find a mediating effect of price fairness on purchase intentions when there is a price increase for this group of consumers. This finding, however, is consistent with prior research that demonstrates that people high in communion orientation tend not to act on an unfair or negative situation, because they are concerned with building harmonious interactions in the long run (Li and Cropanzano 2009).
Study 3

First, the objective of Study 3 is to directly measure individual differences in consumers’ agency–communion orientation. Second, Study 3 investigates the effect of brand humanization on price fairness in a different product category (i.e., battery charger) and in a different price change range (i.e., 10%).

Participants, Design, and Procedure

Three hundred twenty-seven undergraduate students participated in Study 3 in exchange for extra credit. Participants were asked to imagine that they were shopping for a battery charger and were presented with one of two versions (i.e., humanized vs. non-humanized brand) of an ad depicting a fictitious brand of battery chargers, PowerX. After viewing the ad, participants filled out the brand attitude measure. We administered the manipulation of price change in a manner similar to that of Study 2 (the price change was 10%; e.g., from $79.95 to $87.95). After that, we collected price fairness, open-ended thoughts, and purchase intentions measures. Next, we administered manipulation check (i.e., brand anthropomorphization and price change direction) variables. Finally, we measured participants’ agency–communion orientation, demographic variables, and an open-ended suspicion probe; none of the participants guessed the true nature of the study.

Measures

We measured brand attitude ($\alpha = .94$), price fairness ($\alpha = .97$), and purchase intentions ($r = .85, p < .05$) with the same items as in Study 2. To measure agency–communion orientation, we used a 16 five-point bipolar adjective scale from the extended version of the Personal Attributes Questionnaire (Spence, Helmreich, and Holahan 1979). We averaged the responses to create a respective orientation score ($\alpha_{\text{agency}} = .80$, $\alpha_{\text{communion}} = .88$). As prior research indicates, a person can possess both agency and communion traits (Kurt, Inman, and Argo 2011). Thus, a high score on agency or communion does not mean a low score on the other dimension. As such, consistent with prior research (Kurt, Inman, and Argo 2011), we created a relative agency orientation (ACDIF) by subtracting each person’s communion score from his or her agency score.
Results

Manipulation checks. The results of a 2 (price increase vs. price decrease) × 2 (anthropomorphized vs. non-anthropomorphized brand) ANOVA, with the scale measuring the extent of brand anthropomorphization as the dependent variable, showed that participants who viewed an anthropomorphized brand perceived it more as a human than those who viewed a non-anthropomorphized brand (M_anth = 3.57, M_non-anth = 2.98; F(1, 222) = 8.91, p < .05). No other significant main or interaction effects emerged (p > .10). There were no significant differences in brand attitudes between the two conditions (M_anth = 5.50, M_non-anth = 5.56; F(1, 224) = .17, p > .10). All participants also correctly identified the price and the direction of price change.

Hypothesis tests. First, to ensure that gender is a proxy for agency–communion orientation (a point-biserial correlation with gender: r = −.21, p < .05), we used an ANOVA model to examine whether the pattern of the effect of brand anthropomorphization on perceived price fairness for both males and females is the same as in Study 2. The three-way interaction was consistent with the pattern of Study 2 (F(1, 219) = 9.57, p < .05). That is, brand humanization enhanced perceived price unfairness of price increases for males (M_anth = 2.40, M_non-anth = 4.39; F(1, 219) = 41.57, p < .05) but increased perceived fairness of both price increases (M_anth = 3.46, M_non-anth = 2.92; F(1, 219) = 4.02, p < .05) and price decreases (M_anth = 5.54, M_non-anth = 4.76; F(1, 219) = 6.98, p < .05) for females. In the price decrease condition, the effect of brand humanization on price fairness for males was nonsignificant.

Second, we examined the role of agency–communion orientation. We conducted a multiple regression analysis that included brand anthropomorphization (1 = brand anthropomorphization, −1 = no brand anthropomorphization), price change (1 = price increase, −1 = price decrease), relative agency–communion orientation, all two- and three-way interactions among agency–communion orientation, brand anthropomorphization, and price change as independent variables and price fairness as the dependent variable. Consistent with H1, the analysis showed a significant two-way interaction between price change and brand anthropomorphization (β = −.35, t(219) = −4.43, p < .05). In support of H2
effect was qualified by a significant three-way interaction among price change, brand anthropomorphization, and ACDIF ($\beta = -0.22$, $t(219) = -2.34$, $p < .05$). To examine the nature of this three-way interaction, we performed a series of tests at values one standard deviation above (i.e., agency orientation) and below (i.e., communion orientation) the mean score of ACDIF (Aiken and West 1991; Hayes 2013). In accord with the findings of Study 2, we found that high-ACDIF participants regarded a price increase as less fair when the brand was humanized than when the brand was non-humanized (+1 SD; a point estimate of the effect $= -0.91$; 95% CI $[-1.22, -0.61]$). In contrast, low-ACDIF participants viewed a price increase as significantly more fair when the brand was anthropomorphized than when it was non-anthropomorphized (–1 SD; a point estimate of the effect $= 0.27$; 95% CI $[0.003, 0.53]$). We also found that in the price decrease condition, brand anthropomorphization significantly increased price fairness judgments for communal participants (–1 SD; a point estimate of the effect $= 0.51$; 95% CI $[0.17, 0.85]$); however, we observed no significant effect for agentic participants.

Next, we coded open thoughts in a way that was similar to the coding schema of Study 2. Overall, 779 thoughts were generated. We found a significant association between brand humanization and whether or not participants spontaneously inferred motives for a price change ($\chi^2(1) = 3.89$, $p < .05$). The data showed that 52% of those who viewed an anthropomorphized brand spontaneously generated reasons for a price change, whereas 39% of those who viewed a non-humanized brand reported possible motives for a price change. Furthermore, we used a similar integrated model as in Study 2 and the PROCESS macro (model 12) to test (1) the mediating effects of the cognition valence index on the relationship between brand humanization and price fairness and (2) the mediating effect of price fairness on the relationship between brand humanization and purchase intentions for agency- and communion-oriented consumers. The mediating effects that emerged for agency- and communion-oriented consumers resemble the pattern found in Study 2 for males and females. The details and the conditional direct and indirect path coefficients from the integrated regression model are presented in Web Appendix W3.


Discussion

The results of Study 3 extend the findings of Study 2 by establishing the moderating effect of agency–communion orientation on the relationship between brand humanization and price fairness. In accord with our theoretical argument that agentic consumers are more self-focused, Study 3 finds that agentic consumers view price increases as more unfair when a brand is humanized (vs. non-humanized). In turn, this effect results in lower purchase intentions. In contrast, communion-oriented respondents perceive both price increases and decreases as more fair when a brand is anthropomorphized (vs. non-anthropomorphized). These empirical findings add support to our theorizing that people with a communion orientation are less self-focused and are more likely to consider the perspective of others (Skitka and Wisneski 2012). Overall, the findings of Study 3 contribute to research on the role of social schemas in processing humanized brands (Kim and McGill 2011; Puzakova, Kwak, and Rocereto 2013). That is, Study 3 sheds more light on a different moderator (i.e., agency–communion orientation) that is particularly relevant to the context of price fairness, as fairness judgments depend on consumers’ focus either on the self or on others.

Effects of Relationship Norms on Perceived Price Fairness

Thus far, our findings are consistent with the notion that people’s construction of fairness is contingent on their motivational concerns (i.e., self-goals for agency-oriented consumers and other-directed goals for communion-oriented consumers). However, prior research has also demonstrated that the interpretation of fairness depends not only on people’s relational orientation (i.e., communion vs. agency orientation) but also on relationship goals. Two types of interpersonal relationships (i.e., exchange vs. communal) differ in the extent to which different goals (i.e., to maximize one’s interests or to attend to others’ needs) are emphasized (Clark and Mills 1993). Specifically, exchange relationships are those in which all the benefits offered to a partner are given in exchange for equal return (Aggarwal and Larrick 2012). In contrast, in communal relationships, people provide benefits to others out of concern for their
needs and welfare (Clark 1986). Prior research establishes that firms can invest effort in establishing consumer–brand relationships that mirror interpersonal communal or exchange relationships (Aggarwal 2004). Firms develop a certain type of relationship with consumers by using specific types of consumer–brand communications (e.g., communal: “Let Whole Foods Market help you enjoy more time with loved ones”; exchange: “Value for your money”); providing additional services, either free of charge (communal) or for an extra fee (exchange); or creating brand communities. Furthermore, consumers value distinct outcomes and form different expectations in these two relationship types. That is, people in exchange relationships emphasize self-interest and the equal allocation of resources, whereas communal relationships are based on the care and genuine concern for each other’s needs (Clark and Mills 1993). The key expectation in an exchange relationship is that all inputs and outputs are balanced. When a “balance of payments” is breached in exchange relationships (i.e., a partner receives either more or less than what was expected), the person might believe that an implicit relationship contract has been violated and that the relationship partner no longer conforms to established norms. In contrast, the tracking of each other’s contributions and prompt repayment of benefits are less expected in communal relationships (Aggarwal and Law 2005). Furthermore, prior research suggests that relationship goals interact with people’s relational orientation. For example, being in exchange relationships attenuates Chinese participants’ (high in communion orientation) tendency to consider the needs of others and increases their propensity to use an equity principle in distributing resources (i.e., quid pro quo; Chen, Chen, and Portnoy 2009). Relying on this logic, we next discuss how the nature of relationship goals changes the pattern of effects of brand humanization on price fairness for (1) agency-oriented and (2) communion-oriented consumers.

Given that the agency orientation and the exchange relationship goal both focus on maximizing one’s self-interests in relationship exchanges, agency-oriented consumers are likely to view an unfair outcome (i.e., price increase) as violating the balance of benefits and contributions in exchange relationships. As such, brand anthropomorphization is likely to increase the perceived price unfairness of
price increases for agency-oriented consumers in exchange relationship with a brand (consistent with the findings of Studies 2 and 3). Relationally, when partners in exchange relationships are concerned with the balance of each other’s inputs and outcomes, the decrease in one person’s input (i.e., a price decrease) to the relationship should lead to the expectation that his or her outcome (or benefit) should also decrease (Clark 1986). As we discussed and demonstrated in Studies 2 and 3, in a price decrease situation, when a type of relationship norms is not salient, agency-oriented consumers are likely to consider both positive and negative reasons for a price decrease from both an anthropomorphized and a non-anthropomorphized brand. However, the nature of exchange relationships should increase agency-oriented consumers’ perceptions of the negative reasons to decrease the price when a brand is humanized (vs. non-humanized). In other words, when agency-oriented consumers’ inputs to relationships decrease (i.e., a price decrease), they are more likely to infer that they should receive less of a benefit owing to the quid pro quo principle of exchange relationships. Thus, we expect that agentic consumers in exchange relationships with a brand will be more likely to infer more negative reasons for a price decrease and to perceive a price decrease as less fair when a brand is humanized (vs. non-humanized).

Next, we discuss the expected effects for communion-oriented consumers in exchange relationships with a brand. As we argued previously, communion-oriented consumers are other-focused (vs. self-focused; Kurt, Inman, and Argo 2011) and thus are likely to consider the perspective of the other party involved in the relationship. In other words, communion-oriented consumers are likely to both consider a humanized brand’s own input/outcome ratio in a price increase situation and view a greater positive intent from a humanized brand’s price decrease than from a non-humanized brand’s price decrease. When relationship norms are not salient, these effects result in greater perceived fairness of both price increases and decreases when a brand is humanized (vs. non-humanized) for communion-oriented consumers (Studies 2 and 3). However, emphasizing the exchange nature of the relationship should facilitate communion-oriented consumers’ shift toward considering their own
self-interests in the relationship (Skitka 2009). As such, we expect that an exchange relationship with the brand will reduce communion-oriented consumers’ tendency to consider the brand’s input/output ratio in a price increase condition as well as their tendency to view greater positive intent from a brand’s price decrease when a brand is anthropomorphized (vs. non-anthropomorphized). Thus, we expect that the exchange nature of the relationship is likely to attenuate the positive effects of brand anthropomorphization on the perceived fairness of both price increases and decreases for communion-oriented consumers.

What outcomes will arise with regard to communion- and agency-oriented consumers’ reactions to price increases when they are in a communal relationship with the brand? One intuitive expectation is that being in a communal relationship should enhance consumers’ tendency to consider the needs and interests of the other party. This is because communal relationships increase perceived importance and relevance of relationships to the self, even for agency-oriented consumers (Clark 1986; Clark and Mills 1993). Therefore, being in communal relationships may lead a person to be more forgiving of a partner’s violation of relationship norms. However, the argument that people in communal relationships are more forgiving of a partner’s wrongdoing is explicitly disputed. For example, Clark, Dubash, and Mills (1998) demonstrate that people in communal relationships are sensitive to the needs and welfare of both parties in the relationship. In other words, under communal norms, people have a stronger desire to take care of others and a stronger desire to be taken care of. Thus, they could actually be less forgiving if others are expected to take care of them but do not (Clark, Dubash, and Mills 1998). This proposition is also consistent with recent research that shows that people in highly self-relevant relationships react more negatively to a relationship transgression than people in less self-relevant relationships (Johnson, Matear, and Thomson 2011). Bringing these findings to the context of price increases, we argue that consumers in communal relationships with a brand will also expect a humanized brand to take care of their own needs to a greater extent than a non-humanized brand. As such, they are likely to perceive a price increase from a humanized brand as an indication that the brand does not care about their needs and
thus are more likely to infer that the brand is taking advantage of them. If so, both communion- and agency-oriented consumers in communal relationships are likely to view a price increase as more unfair when a brand is humanized (vs. non-humanized).

Furthermore, given that the nature of communal relationships assumes that partners in the relationship care about each other’s needs (Clark, Dubash, and Mills 1998), a price decrease is likely to be perceived as an indication of a brand taking care of consumers’ needs. This is consistent with communion-oriented consumers’ general tendencies to perceive a humanized brand’s price increase as being driven by a positive intent. As being in communal relationships with a brand emphasizes communion-oriented consumers’ perceptions of the positive intent of a brand’s actions, we expect that brand humanization will increase the evaluations of the fairness of a price decrease. Conversely, agency-oriented consumers are generally less likely to recognize goodwill in others’ actions, and this tendency is likely to result in a null effect of brand humanization on price decreases when relationship norms are not salient. However, emphasizing the communal nature of the relationship should enhance agentic consumers’ tendency to interpret others’ positive actions as being driven by positive intentions. As such, we expect that brand humanization will lead to greater perceived fairness of a price decrease for agency-oriented consumers in communal relationships with a brand. Overall, our theoretical rationale involves two three-way interactions among brand humanization, price change, and relationship norms for (1) agency-oriented and (2) communion-oriented consumers:

H3: For agency-oriented consumers, brand anthropomorphization interacts with price change and relationship norms. (a) For consumers in communal brand relationships, brand anthropomorphization increases the perceived (i) unfairness of price increases and (ii) fairness of price decreases. (b) For consumers in exchange brand relationships, brand anthropomorphization increases the perceived unfairness of (i) price increases and (ii) price decreases.

H4: For communion-oriented consumers, brand anthropomorphization interacts with price change and relationship norms. (a) For consumers in communal brand relationships, brand anthropomorphization increases the perceived (i) unfairness of price increases and (ii) fairness of price decreases. (b) For consumers in exchange brand relationships, there is no difference in the perceived price fairness of (i) price increases and (ii) price decreases between an anthropomorphized and a non-anthropomorphized brand.
Study 4

Participants, Design, and Procedure

In exchange for extra credit, two hundred eighty-eight business students participated in Study 4. Participants were told that they would view some information about a particular brand of digital products. We then administered the manipulation of relationship norms with a fictitious brand of 3D HD webcam, Emecron (Web Appendix W4; Aggarwal 2004). Prior research indicates that even without actual long-term relationships, relationship norms can be induced in an experimental setting (Aggarwal 2004; Clark 1986). The further procedure was similar to that of Study 3; the only difference was that right after viewing the ad manipulating brand anthropomorphization (Figure 1), participants also reported their perceptions of product quality. The price change (15%) manipulation was the same as in Studies 2 and 3 (Web Appendix W5). Next, we collected price fairness, open-ended thoughts, purchase intentions, perceptions of indebtedness toward the brand, manipulation check variables (i.e., relationship norms, brand anthropomorphization, and price change), and demographic information. Gender served as a proxy for agency–communion orientation, as in Study 2. Finally, we administered the demand probe; none of the participants were aware of the research question.

Measures

We measured price fairness ($\alpha = .97$), brand attitude ($\alpha = .97$), purchase intentions ($r = .65, p < .05$), and the manipulation check on anthropomorphism with the same items as in Study 3. To assess the effectiveness of the relationship manipulations, participants responded to seven questions (Aggarwal 2004; Clark 1986), five of which tapped into communal relationship norms (e.g., “At Emecron, they care for you,” “They help you in time of need”; 1 = “strongly disagree,” and 7 = “strongly agree”; $\alpha = .91$). Another two items tapped into exchange relationship norms (e.g., “At Emecron, it’s all about getting good value for your money”; $r = .51, p < .05$). We reverse-scored these two questions and combined them with the first five to form a New Community Score. We measured perception of indebtedness toward the brand on a seven-point Likert-type scale (i.e., “I feel that I am obligated to the Emecron
brand”; 1 = “strongly disagree,” and 7 = “strongly agree”). We also assessed product quality (i.e., “Please rate the quality of the Emecron product”; 1 = “very low quality,” and 7 = “very high quality”). In addition, to ensure that the humanized and non-humanized product designs of an Emecron 3D HD webcam did not differ in terms of design attractiveness, we conducted a pretest (n = 59), in which participants evaluated how attractive and appealing they found the design of the Emecron 3D HD webcam (r = .72, p < .05). The results revealed no differences in the attractiveness of the product design (M_{anth} = 4.62, M_{non-anth} = 4.67; F(1, 57) = .02, p > .10).

**Results**

**Manipulation checks.** The results of an ANOVA with brand anthropomorphization, price change, relationship norms, and their two- and three-way interactions as independent variables and the Net Community Score as the dependent variable revealed a significant effect of relationship norms. Participants in the communal relationship (CR) reported a higher Net Community Score than participants in the exchange relationship (ER) (M_{CR} = 3.62, M_{ER} = 3.36; F(1, 280) = 10.92, p < .05). No other main or interaction effects were significant. Furthermore, the ANOVA with the brand humanization scale (α = .93) as the dependent variable revealed that participants perceived the brand as more humanlike in the anthropomorphized (vs. non-anthropomorphized) brand condition (M_{anth} = 4.18, M_{non-anth} = 3.31; F(1, 280) = 20.08, p < .05). No other main effects of price, relationship norms, or interactions between these two variables were significant. In addition, there were no significant differences in brand attitudes (M_{anth} = 6.10, M_{non-anth} = 6.13; F(1, 283) = .12, p > .10), product quality (M_{anth} = 5.88, M_{non-anth} = 6.06; F(1, 283) = 2.56, p > .10), or perceptions of indebtedness toward the brand (M_{anth} = 2.88, M_{non-anth} = 2.56; F(1, 283) = 2.22, p > .10) between the humanized and non-humanized conditions. All participants correctly identified the price on the Emecron.com website. The price was also rated as an increase or decrease, as intended.

**Hypothesis tests.** We tested the predictions separately for agency-oriented consumers (H₃) and communion-oriented consumers (H₄) using an ANOVA that included the main effects of brand
anthropomorphization, price change, relationship norms, and all possible two- and three-way interactions of the independent variables on price fairness. For agency-oriented consumers (males), we found a significant three-way interaction among brand humanization, price change, and relationship norms ($F(1, 166) = 5.17, p < .05$). Consistent with $H_{3a}$, the results revealed a significant two-way interaction between brand anthropomorphization and price change ($F(1, 166) = 14.59, p < .05$) for consumers in a CR. Additional planned contrasts showed that brand anthropomorphization increased perceived unfairness of a price increase ($H_{3a(i)}; M_{\text{anth}} = 3.16, M_{\text{non-anth}} = 4.12; F(1, 166) = 6.99, p < .05$) and enhanced perceived fairness of a price decrease ($H_{3a(ii)}; M_{\text{anth}} = 6.34, M_{\text{non-anth}} = 5.44; F(1, 166) = 7.69, p < .05$) for CR participants. For consumers in an ER with a brand, brand anthropomorphization increased perceived unfairness of both price increase ($H_{3b(i)}; M_{\text{anth}} = 3.25, M_{\text{non-anth}} = 4.33; F(1, 166) = 6.03, p < .05$) and price decrease ($H_{3b(ii)}; M_{\text{anth}} = 5.00, M_{\text{non-anth}} = 5.93; F(1, 166) = 6.39, p < .05$).

Next, we report the results for communion-oriented consumers (females). Consistent with $H_4$, we found a three-way interaction among brand anthropomorphization, price change, and relationship norms ($F(1, 106) = 7.78, p < .05$). In support of $H_{4a}$, the results also showed a two-way interaction between brand humanization and price change for participants in a CR ($F(1, 106) = 16.04, p < .05$). Planned contrast analysis revealed that for consumers in a CR, brand humanization increased perceived unfairness of a price increase ($H_{4a(i)}; M_{\text{anth}} = 2.53, M_{\text{non-anth}} = 3.92; F(1, 106) = 8.48, p < .05$) and led to greater perceptions of fairness of a price decrease ($H_{4a(ii)}; M_{\text{anth}} = 6.19, M_{\text{non-anth}} = 4.94; F(1, 106) = 7.56, p < .05$). However, there were no significant differences in perceived price fairness either of a price increase ($H_{4b(i)}$) or a price decrease ($H_{4b(ii)}$) between a humanized and non-humanized brand for communion-oriented consumers in an ER with the brand (Table 3; Web Appendix W6).

Furthermore, we tested whether price fairness predicts consumers’ purchase intentions. To do so, we ran two regression models (separately for males and females) that included brand anthropomorphization, price change, relationship norms, and all possible interactions between the variables on purchase intentions with price fairness as the mediating variable. For males, in the price
increase condition, the bootstrapping analysis revealed significant paths from brand anthropomorphization to purchase intentions through price fairness for participants in both a CR (a point estimate for the effect = –.26; 95% CI [–.50, –.06]) and an ER (a point estimate for the effect = –.31; 95% CI [–.59, –.06]). We also found significant paths from brand anthropomorphization to purchase intentions through price fairness for males in a CR (a point estimate for the effect = .24; 95% CI [.08, .44]) and an ER (a point estimate for the effect = –.25; 95% CI [–.54, –.03]) in the price decrease condition. For females, there was a significant mediating effect of price fairness on purchase intentions for participants in a CR in both the price increase (a point estimate for the effect = –.21; 95% CI [–.54, –.008]) and the price decrease (a point estimate for the effect = .19; 95% CI [.005, .50]) conditions. No significant indirect paths emerged for female participants in an ER for either a price increase or a price decrease.

**Cognitive responses.** The total number of thoughts generated was 896. There was a significant association between brand humanization and whether or not participants spontaneously inferred motives for a price change ($\chi^2(1) = 7.03, p < .05$). That is, 60% of participants who viewed a humanized brand spontaneously generated reasons for a price change, whereas 45% of participants who viewed a non-humanized brand did so. The results of a bootstrapping analysis revealed that, for males, in the price increase condition, the cognition valence index mediated the effect of brand anthropomorphization on price fairness for participants in both a CR (a point estimate for the effect = –.16; 95% CI [–.32, –.01]) and an ER (a point estimate for the effect = –.17; 95% CI [–.32, –.05]). That is, in the price increase condition, males in both CR and ER with the brand generated more negative (vs. positive) thoughts when a brand was humanized (vs. non-humanized). In the price decrease condition, the cognition valence index mediated the effect of brand humanization on price fairness for males in both an ER (a point estimate for the effect = –.20; 95% CI [–.40, –.03]) and a CR (a point estimate for the effect = .31; 95% CI [.16, .50]). That is, consumers in an ER generated more negatively valenced thoughts (e.g., “Maybe it signaled a lower quality of a product, and consumers are not willing to buy it”), whereas consumers in a
CR generated significantly more positive thoughts (e.g., “Selfless [company], cares about the customer, tries to help customers save money, willing to make less profit”) about a price decrease when the brand was humanized (vs. non-humanized). The results of a bootstrapping analysis for females revealed that the cognition valence index mediated the effect of brand anthropomorphization on price fairness for participants in a CR in both the price increase (a point estimate for the effect = –.19; 95% CI [–.39, –.02]) and price decrease (a point estimate for the effect = .47; 95% CI [.20, .82]) conditions. That is, the direction of the mediating effect for female participants in a CR was similar to that of male participants in a CR. However, we did not find mediating effects of the cognition valence index for females in an ER with the brand for either a price increase or a price decrease.3

Discussion

Study 4 extends the findings of Study 3 and further establishes that the effect of brand anthropomorphization on price fairness depends not only on consumer-level differences, over which firms have less control (i.e., agency–communion orientation), but also on a factor, consumer–brand relationship norms, that firms can strategically manage. Study 4 also sheds more theoretical light on the more complex nature of interactions among consumer differences in agency–communion orientation, consumer–brand relationship norms, and brand anthropomorphization. The results of Study 4 are also consistent with justice reasoning theory (Skitka 2009), which indicates that the nature of the relationship (e.g., exchange) is likely to trigger one’s focus on self-interests (vs. the interests of others). In particular, the effect of brand anthropomorphization on price fairness for both price increases and decreases is negative when agency-oriented consumers form exchange relationships with a brand. The exchange nature of relationships also diminishes communion-oriented consumers’ tendencies to consider the needs of others and, as such, attenuates the perceived differences in price fairness between a humanized and a non-humanized brand. The findings of Study 4 also show that when consumers develop communal

3 In Studies 3 and 4, in addition to examining cognitive responses, we conducted several bootstrapping mediating tests (e.g., brand’s commitment to harmonious interactions, perceived self-relevance of brand’s actions) to examine in detail the psychological mechanisms underlying the effect of brand anthropomorphization on price fairness. The results of these tests appear in Web Appendix W7.
relationships with a brand, brand anthropomorphization enhances perceived unfairness of price increases for both agency- and communion-oriented consumers. The cognitive responses data add empirical support to our theorizing that a humanized brand’s price increase fails to uphold relationship norms when consumers develop communal relationships with a brand. In combination, these results provide further insights into brand anthropomorphization theory and practice (Aggarwal and McGill 2007; Kim and McGill 2011), as they show that the effect of anthropomorphism depends on the types of interactions established between consumers and humanized entities.

**General Discussion**

The results of five studies—conducted across diverse settings and consumer groups (mall-intercept interviews, household panel data, and experiments) and using different types of products (grocery items, coffeemaker, battery charger, and 3D HD webcam)—provide robust evidence that brand anthropomorphization affects price fairness. Specifically, Study 1 provides real-world evidence of this phenomenon with longitudinal household panel data, enhancing the quasi-external validity of our findings. The price elasticity analysis across six product categories confirms that brand humanization leads to greater price sensitivity. Furthermore, the results of Study 2 reveal that brand anthropomorphization increases perceived unfairness of price increases and perceived fairness of price decreases. Evidence from the cognitive response data shows that consumers attribute greater negative motives to a humanized (vs. non-humanized) brand. In addition, the thought data across three studies reveal the important occurrence of spontaneous judgments of a motive behind a price change when a brand is humanized. Studies 2–4 provide a more nuanced understanding of this phenomenon and establish that the effect of brand humanization on price fairness is contingent on both consumer-level (agency–communion orientation; Studies 2–4) and firm-level (consumer–brand relationship norms; Study 4) variables. To this end, the results show that communion-oriented consumers view a price change (both increase and decrease) as more fair when a brand is anthropomorphized (vs.
non-anthropomorphized). Conversely, agency-oriented consumers evaluate price increases by a humanized (vs. non-humanized) brand as less fair. The findings of Study 4 are also consistent with the premise that the nature of a relationship influences either the emphasis on one’s own interests or concerns for the interests of others. Because both agency-orientation and exchange relationship norms focus on maximizing one’s self-interest, agency-oriented consumers in the exchange relationship with a brand perceive price increases as more unfair when a brand is humanized (vs. non-humanized). However, for communion-oriented consumers, the exchange nature of the relationship reduces their tendency to consider the needs of others. As such, being in an exchange relationship with a brand attenuates the positive effect of brand anthropomorphization on price fairness for both price increases and decreases for communion-oriented consumers, resulting in no differences in perceived price fairness between a humanized and a non-humanized brand. For consumers in a communal relationship with a brand, the results reveal that brand anthropomorphization facilitates perceived unfairness of price increases for both agency- and communion-oriented consumers. These findings indicate that in communal relationships, consumers not only care about the needs of others but also are concerned about whether their own needs in the relationship are met. Thus, because the brand is expected to take care of consumers’ needs in a communal relationship, a price increase from a humanized brand violates this expectation. Finally, because agency-oriented consumers, in general, perceive no differences in price fairness when a brand is humanized or not, being in the communal relationship with the brand increases their tendency to view a more positive intent of a humanized brand’s price decrease. Thus, brand humanization increases the perceived fairness of price decreases in this context.

Theoretical Implications

This research contributes to anthropomorphism theory in several ways. First, by challenging the general finding that anthropomorphism exerts positive effects on consumer evaluations (Delbaere, McQuarrie, and Phillips 2011), this research adds to the emerging literature on the negative consequences of anthropomorphism in the marketplace (Aggarwal and McGill 2007; Kim and McGill
That is, we find negative downstream effects of brand anthropomorphization in a new substantive domain—price fairness.

Overall, in combination with prior work, our research resides in a larger integrated framework of how consumers interpret humanized and non-humanized entities’ behaviors on three equally important dimensions of attributions: (1) controllability, (2) accountability, and (3) intent. Kim and McGill (2011) show that humanization influences the extent to which consumers believe that they can control a humanized entity dependent on their states of power. Puzakova, Kwak, and Rocereto (2013) show that brand humanization increases perceived accountability for a negative performance. The current research provides insights into the role of humanization on the inferences of intent by demonstrating that brand anthropomorphization increases consumers’ perceptions of a motive for a humanized brand’s actions. Importantly, in combination with the role of power in influencing the perceptions of risk-bearing humanized entities (Kim and McGill 2011) and the role of implicit theory in evaluations of humanized brands’ wrongdoings (Puzakova, Kwak, and Rocereto 2013), our study sheds more theoretical light on the role of a different moderator, agency–communion orientation, in qualifying the brand anthropomorphization effects in a unique context of price fairness evaluations. That is, in evaluating the role of agency–communion orientation, which determines the extent to which consumers focus on their own versus others’ interests, we uncover boundary conditions of the general negative effect of brand anthropomorphization on price fairness.

Furthermore, by demonstrating that consumers apply schemas regarding their relationship norms when interpreting a humanized brand’s actions (i.e., price fairness), our research extends prior work that shows that the type of relationship that consumers develop with a humanized brand triggers different consumer goals and motivations (Aggarwal and McGill 2012). For example, our research shows that the exchange type of a consumer–brand relationship triggers consumers’ self-interests and goals. As such, it diminishes communion-oriented consumers’ general tendency to consider the needs of a humanized brand and thus reduces the power of brand anthropomorphization to increase perceived fairness of price
changes. Furthermore, although prior research has demonstrated that strong brand equity (e.g., brand
loyalty, brand reputation) increases consumers’ tendency to infer a brand’s positive motives for price
increases (Campbell 1999a), our research uncovers a more nuanced and complex nature of the
interaction effects among consumer–brand relationships (a component of brand equity), consumer
individual differences in agency–communion orientation, and anthropomorphized brand positioning on
the judgments of price fairness. For example, whereas prior research findings regarding the positive
effect of brand equity on price fairness would predict that strong consumer–brand relationships should
increase perceived fairness of price increases, our research provides a counterintuitive finding that
consumers in communal relationships with a brand actually view prices as more unfair when a brand is
humanized (vs. non-humanized).

Finally, few investigations of the real-world impact of both brand anthropomorphization and
price fairness have been conducted in marketing literature (Ahn, Kim, and Aggarwal 2013; Campbell
2007). In contrast, we provide evidence of the effect of brand anthropomorphization on price fairness by
examining the asymmetry of price elasticities between humanized and non-humanized brands with
actual sales data. As such, our research enhances the external validity of the impact of brand
humanization on actual purchasing behavior.

Managerial Implications

One rationale underlying marketers’ use of humanized brand positioning strategies is the ability
to connect better with their customers (Delbaere, McQuarrie, and Phillips 2011). However, recent
research indicates the conditions under which this strategy might lead to detrimental outcomes (e.g.,
product wrongdoings; Puzakova, Kwak, and Rocereto 2013). Our research shows another critical
adverse consequence of deploying a humanized brand positioning strategy on perceived fairness of price
increases; that is, brand humanization can increase perceived unfairness of price increases and perceived
fairness of price decreases, which in turn reduces or enhances demand for the brand, respectively. For
example, the results of the household panel data analysis reveal that humanized brands (e.g., Red Baron
pizza) have greater price sensitivity than non-humanized brands (e.g., Roma pizza). Furthermore, our results show that the effect of brand humanization is contingent on consumer individual differences (e.g., gender), so practitioners should obtain a better understanding of their target markets. For example, Fruit of the Loom, an apparel manufacturer that uses brand anthropomorphization in its marketing communications, should take greater care when increasing the prices of products targeted to men than to women. In addition, marketing practitioners should consider the type of relationship norms they develop with their customers, as our findings demonstrate that the effect (as well as its direction) of brand anthropomorphization is dependent on the nature of consumer–brand relationships. For example, an overview of the Celeste brand’s (one of the brands examined in our scanner data) communications on its website suggests that the brand develops an exchange relationship with its consumers (e.g., “A quality product at an affordable price”). Our results indicate that agency-oriented (but not communion-oriented) consumers could view price decreases by the Celeste brand as more of an indication of lower product quality because the brand is anthropomorphized. Although this research did not investigate consumer switching behavior, it is also possible that agency-oriented (males) consumers would be more likely to switch to a different brand than communion-oriented (females) consumers. Our research also indicates that though firms that serve communion-oriented consumers are more likely to enjoy greater latitude when increasing their prices, in general, developing communal types of relationships with consumers heightens their expectations of a brand in taking care of their needs as well. As such, a price increase might be interpreted as a signal that the firm no longer cares about consumers’ needs, and thus brand humanization could increase perceived price unfairness even for communion-oriented consumers.

Our findings show that consumers infer greater negative motives for and develop stronger negative reactions to a price increase when a brand is humanized (vs. non-humanized). Thus, we advise practitioners to develop careful communication strategies to manage consumer perceptions of the motives behind a price increase. Our results also indicate that companies should use different strategies to prevent or reduce negative motive inferences depending on the predominant gender of their
customers. For example, if a humanized brand’s target market primarily consists of men, marketers might be better off emphasizing the external causes of a price increase. If male consumers view a motive as fair, their reactions will be less negative. In this regard, the Michelin brand’s (anthropomorphized) marketing strategy regarding its consecutive price increases is exemplary. In particular, Michelin’s press release statements were replete with announcements about its “reactive pricing policy” aimed to offset rising prices for oil and rubber. Companies might consider designing ad campaigns, placing their communications on their websites, or even contacting their customers through direct mail to communicate the positive motives for a price increase. Moreover, prior research has shown that it is possible to prime consumers’ agency–communion orientation (Kurt, Inman, and Argo 2011). If consumers’ communion orientation can be activated through the use of marketing communications, managers of humanized brands could create promotions that focus on a communal orientation when the price of the brand must be raised, to increase consumers’ perceptions of positive intentions behind a humanized brand’s price increase.

**Limitations and Further Research**

Certain limitations in our studies suggest opportunities for further research. First, although the results of the household panel data analysis evidence the effect of brand humanization on actual purchasing behavior, caution must be exercised in interpreting these findings. We found that consumers are more price sensitive when a brand is humanized (vs. non-humanized), but scanner data are historic in nature. As such, it is difficult to provide firm conclusions about the causality of the effect. Second, prior research suggests that positive brand attitudes lead to evaluations of price increases as being more fair (Homburg, Hoyer, and Koschate 2005). Our research addresses the situation when brand humanization does not lead to differences in brand attitudes; however, other work shows positive effects of brand humanization (Delbaere, McQuarrie, and Phillips 2011). With more positive brand attitudes induced by anthropomorphism, would the effect of brand humanization on the perceived fairness of price increases remain negative, or would it turn positive?
Furthermore, our findings regarding the role of agentic and communal values can be informative of Puzakova, Kwak, and Rocereto’s (2013) work, which shows that brand humanization increases consumer perceptions of a brand’s responsibility for its wrongdoing. The current study suggests that when relationships are important (e.g., as is the case with communal values), brand humanization might curtail unfavorable consumer responses to negative publicity (e.g., product wrongdoings), just as it reduces negative responses to small and large price changes. It is also possible that the negative effects of brand humanization would hold only for minor product failures, whereas for major product wrongdoings, brand humanization may still exaggerate negative consumer responses to such failures because major misdeeds are likely too egregious to forgive even when relational values are important. These possibilities are areas for further consideration.

Another important question is whether the simultaneous communication of price increases of multiple (i.e., humanized and non-humanized) brands in an industry creates a greater contrast and makes consumers view a humanized brand’s price increase as even less fair. This situation occurred with the Mars M&M brand and its competitors, Lindt and Hershey. Would the juxtaposition of two brands in the same message make consumers perceive humanized brands as more ethical than non-humanized brands? Similarly, the timing of communication (i.e., is a humanized brand a first mover?) might be an important area of further research. Finally, although the results of Study 4 show that communal relationships reverse the positive effect of brand humanization on price fairness, further research could identify additional conditions that affect the relationship between brand humanization and price fairness. Identifying such conditions might also contribute to a deeper understanding of the effects of brand anthropomorphization on price fairness.
References


Chen, Ya-Ru, Xiao-Ping Chen, and Rebecca Portnoy (2009), "To Whom Do Positive Norm and Negative Norm of Reciprocity Apply? Effects of inequitable Offer, Relationship, and Relational-Self Orientation," *Journal of Experimental Social Psychology*, 45, 24-34.


Delbaere, Marjorie, Edward F. McQuarrie, and Barbara J. Phillips (2011), "Personification in


Moon, Henry and Donald E. Conlon (2002), "From Acclaim to Blame: Evidence of a Person Sensitivity Decision Bias," *Journal of Applied Psychology*, 87 (February), 33-42.


Spence, Janet T., Robert L. Helmreich, and Carole K. Holahan (1979), "Negative and Positive Components of Psychological Masculinity and Femininity and Their Relationships to


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<td>-0.847 (0.69)</td>
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<td>Yogurt</td>
<td>Colombo</td>
<td>2.78 (1.76)</td>
<td>-1.780 (1.21)</td>
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<td>3.25 (1.87)*</td>
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<td>Wells Blue Bunny&lt;sup&gt;c&lt;/sup&gt;</td>
<td>3.25 (1.87)</td>
<td>-1.958 (1.21)</td>
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Notes: AB = anthropomorphized brand; NAB = non-anthropomorphized brand; <sup>a</sup> Consumer perceptions toward the degree of brand anthropomorphization on a seven-point, four-item Likert-type scale - the higher on the scale, the higher the perception of brand anthropomorphization; <sup>b</sup> Data from IRI Marketing Data Set (Bronnenberg, Kruger, and Mela 2008); <sup>c</sup> Anthropomorphized brands; The estimates in parentheses are standard deviations; * significant at p < .05 for a pairwise test between AB and NAB.
TABLE 2
Quarterly Elasticities Across Product Categories

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<td>Overall</td>
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Notes: AB = anthropomorphized brand; NAB = non-anthropomorphized brand; The estimates in parentheses are standard deviations; * significant at $p < .05$ for a pairwise test between AB and NAB.
# TABLE 3
Study 4: Cell Means and Standard Deviations

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<td>Fairness</td>
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<td>(1.18)</td>
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</table>

Notes: AB = anthropomorphized brand; NAB = non-anthropomorphized brand; Standard deviations are in parentheses.
FIGURE 1
Studies 2, 3, and 4: Manipulations of Non-Anthropomorphized Versus Anthropomorphized Brands

Study 2

Aroma

You'll love the way it brews your morning cup of coffee. Its innovative design optimizes every angle around the coffee grounds and makes your coffee incomparably delicious. It automatically shuts off after two hours to prevent you from forgetting it is on. Its removable filter holder makes it a breeze to clean. By highlighting bold extravagance and innovativeness, it perfectly complements any setting or occasion.

Dimensions: 12.2" x 10.3" x 18.6" D
Weight: 18 lbs
Warranty: 3-year limited

Available at www.Aroma.com

Study 3

PowerX

A new generation of intelligent power, no matter what. Driven by its advanced CPU technology, our innovative and innovative hardware provides the highest quality standards. Its longer battery life and frequent updates with high capacity of 10,000 mAh, plus high-speed charging, it comes complete with a set of accessories including a travel adapter, smartphones, and all accessories.

Available at our website: www.PowerX.com

Study 4

Emecron

Capture Your Most Exciting Moments!

It is the ultimate 3D HD Webcam. With its HD 720p video and 1280 x 720 maximum video resolution, Extreme perfect streaming experiences and recording are just a click away. It is easy to use, lightweight, and comes with an amazing sound and a super 3600K hard drive for maximum storage space. With its amazing features, all your memorable moments can now be seen in 3D through messaging programs like Skype, Windows Live Messenger, or Gmail.

Available at our website: www.Emecron.com
Web Appendix

“Better Not Smile at the Price:
The Differential Role of Brand Anthropomorphization on Perceived Price Fairness”

Web Appendix

Better Not Smile at the Price:
The Differential Role of Brand Anthropomorphization on Perceived Price Fairness

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E-Mail: jroceret@monmouth.edu

* Corresponding author
WEB APPENDIX W1
Pilot Study: Manipulation of an Anthropomorphized and a Non-Anthropomorphized Brand

PANEL A: Anthropomorphized Brand

PANEL B: Non-Anthropomorphized Brand
### WEB APPENDIX W2

#### Pilot Study: Mall-Intercept Interview Themes and Examples

<table>
<thead>
<tr>
<th>Condition</th>
<th>Themes</th>
<th>Examples</th>
</tr>
</thead>
</table>
| AB Male consumers | Negative Inferred Motive | “I still lean toward it being a maneuver to get me to buy.”  
“Because, like I said about bait-and-switch, they get you in there, and it’s a higher price – just wasting my time – wasting my time driving up there.”  
“Like this product is a salesperson who is out for the commission who is trying to take advantage of me, just trying to get me in, without caring about giving me a good price.”  
“My first reaction, if we put it in order, was surprise, then disbelief, then disappointment, then frustration.”  
“I am upset that they misled me about the price.” |
| AB Female consumers | Positive Inferred Motive | “I don’t know if it was on sale and I missed it.”  
“I was thinking that maybe what was in the ad was the online price and the price in the store was the store price. A lot of times the online price is cheaper than what you would pay in the store.”  
“There were a couple of things I was surprised at. The first thing I noticed after reading the advertisement was that the price was different.”  
“I was confused at first. It was 10 dollars more. Someone else was next to me looking at them, and he said something about one of them being on sale, so I didn’t know if they were having specials.” |

Notes: AB = anthropomorphized brand; NAB = non-anthropomorphized brand
### WEB APPENDIX W2: CONTINUED

**Pilot Study: Mall-Intercept Interview Themes and Examples**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Themes</th>
<th>Examples</th>
</tr>
</thead>
</table>
| NAB Male      | Expected, common, typical | “I think that price increase is common all the time.”  
| Male consumers|                         | “I expect discrepancies in price, particularly with technology. I’ve seen this over and over and over. I would not consider that atypical.”  
|               |                         | “I figured that your retail (store) has more to do with that…the situation that…whatever the steps in the process from going from Logitech to another store – middleman – marking up the prices – I would expect that it is possible.” |
| NAB Female    | Expected, common, typical | “Prices vary from store to store. I don’t know any more for how much the original maker sells stuff since the ages of Amazon. You always get several different prices.”  
| Female consumers|                         | “It was just a mistake on the side of the (store name)—either they got the price wrong on the ad or in the store. I thought that the ad might be old, they had a special offer for 69.99 which is over.” |

Notes: AB = anthropomorphized brand; NAB = non-anthropomorphized brand
The indirect effect of the interaction between brand anthropomorphization, price change, and agency-communion orientation on price fairness via cognition valence index is significant (a point estimate of the effect = -.06, 95% CI [-.15, -.001]).

Conditional Indirect Effects at –1 SD and +1 SD of ACDIF:

<table>
<thead>
<tr>
<th>ACDIF</th>
<th>Price Change</th>
<th>Effect</th>
<th>SE</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>–1 SD</td>
<td>Price Increase</td>
<td>.10</td>
<td>.06</td>
<td>[.005, .23]</td>
</tr>
<tr>
<td>–1 SD</td>
<td>Price Decrease</td>
<td>.21</td>
<td>.07</td>
<td>[.10, .35]</td>
</tr>
<tr>
<td>+1 SD</td>
<td>Price Increase</td>
<td>-.32</td>
<td>.09</td>
<td>[-.52, -.18]</td>
</tr>
<tr>
<td>+1 SD</td>
<td>Price Decrease</td>
<td>-.02</td>
<td>.05</td>
<td>[-.11, .08]</td>
</tr>
</tbody>
</table>

Conditional Direct Effect of Brand Anthropomorphization on Perceived Price Fairness

<table>
<thead>
<tr>
<th>ACDIF</th>
<th>Price Change</th>
<th>Effect</th>
<th>SE</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>–1 SD</td>
<td>Price Increase</td>
<td>.17</td>
<td>.13</td>
<td>[-.08, .41]</td>
</tr>
<tr>
<td>–1 SD</td>
<td>Price Decrease</td>
<td>.30</td>
<td>.17</td>
<td>[-.03, .63]</td>
</tr>
<tr>
<td>+1 SD</td>
<td>Price Increase</td>
<td>-.59</td>
<td>.16</td>
<td>[-.91, -.28]</td>
</tr>
<tr>
<td>+1 SD</td>
<td>Price Decrease</td>
<td>.07</td>
<td>.14</td>
<td>[-.21, .35]</td>
</tr>
</tbody>
</table>
WEB APPENDIX W3: CONTINUED

Study 3: Conditional Direct and Indirect Effects of Brand Anthropomorphization on Purchase Intentions (via Perceived Price Fairness)

The indirect effect of the interaction between brand anthropomorphization, price change, and agency-communion orientation on purchase intentions via price fairness is significant (a point estimate of the effect = .13, 95% CI [-.24, -.03]).

Conditional Indirect Effects at –1 SD and +1 SD of ACDIF:

<table>
<thead>
<tr>
<th>ACDIF</th>
<th>Price Change</th>
<th>Effect</th>
<th>SE</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>–1 SD</td>
<td>Price Increase</td>
<td>.15</td>
<td>.10</td>
<td>[-.04, .36]</td>
</tr>
<tr>
<td>–1 SD</td>
<td>Price Decrease</td>
<td>.29</td>
<td>.08</td>
<td>[.14, .47]</td>
</tr>
<tr>
<td>+1 SD</td>
<td>Price Increase</td>
<td>-.53</td>
<td>.12</td>
<td>[-.78, -.31]</td>
</tr>
<tr>
<td>+1 SD</td>
<td>Price Decrease</td>
<td>.03</td>
<td>.07</td>
<td>[-.11, .16]</td>
</tr>
</tbody>
</table>

Conditional Direct Effect of Brand Anthropomorphization on Purchase Intentions

<table>
<thead>
<tr>
<th>ACDIF</th>
<th>Price Change</th>
<th>Effect</th>
<th>SE</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>–1 SD</td>
<td>Price Increase</td>
<td>-.27</td>
<td>.17</td>
<td>[-.60, .06]</td>
</tr>
<tr>
<td>–1 SD</td>
<td>Price Decrease</td>
<td>-.24</td>
<td>.22</td>
<td>[-.67, .18]</td>
</tr>
<tr>
<td>+1 SD</td>
<td>Price Increase</td>
<td>-.38</td>
<td>.21</td>
<td>[-.78, .03]</td>
</tr>
<tr>
<td>+1 SD</td>
<td>Price Decrease</td>
<td>-.03</td>
<td>.19</td>
<td>[-.40, .33]</td>
</tr>
</tbody>
</table>
WEB APPENDIX W4
Study 4: Manipulation of Consumer-Brand Relationship Norms

Communal Relationship Scenario Description:

You have been purchasing digital products from Emecron for several years. After each purchase, you have received a personal email from Emecron to thank you.

On occasion, you order from Emecron’s catalog. Whenever you place an order, you have very pleasant and warm interactions with them that make you feel special—not just like a regular customer. They understand your needs and always go the extra mile to help you. You feel that they take a personal interest in you and have often taken the initiative to build a closer relationship with you.

Overall, you have always associated Emecron with positive feelings. To you, your interactions with Emecron are about more than just money.

Exchange Relationship Scenario Description:

You have been purchasing digital products from Emecron for several years. After each purchase, you have received a confirmation email from Emecron detailing your transaction.

On occasion, you order from Emecron’s catalog. Whenever you place an order, you find their transactions to be very efficient, and they consistently place your order quickly. They know that it makes for good business to respect their customers’ time. Their personnel seem to appear well-trained and professional.

Overall, you think of Emecron as a good business partner—you always keep things as even as possible and generally have a good track record of your exchanges with Emecron.
Now, please imagine that, after you saw the advertisement for the Emecron brand, you have decided to visit the brand’s website, Emecron.com. Here, you find the Emecron 3D HD webcam for $179.95, as below:
WEB APPENDIX W5: CONTINUED

Study 4: Example of Manipulation of a Price Change
(Price Increase, Non-Anthropomorphized Brand)

Please now imagine that a week later you decide to visit the Emecron.com website again and discover that the price has changed from $179.95 to $206.95, as below:

![Emecron.com Website Screenshot]

It captures your most exciting moments!

It is the ultimate 3D HD Webcam. With its HD 720p video calling and 1280 x 720 maximum video resolution, it creates perfect viewing experiences and recordings in 3D. It has a 1 GHz processor for amazing speed and boasts a 200MB hard drive for maximum storage space. With its exciting features, all your memorable moments can now be seen in 3D through messaging programs like Skype, Windows Live Messenger, or Oovoo.

It makes distances disappear and keeps your exciting moments alive.
WEB APPENDIX W6
Study 4: Interaction Effects among Brand Anthropomorphization, Price Change, and Consumer-Brand Relationship Norms on Perceived Price Fairness for Agency-Oriented and Communion-Oriented Consumers

Panel A: Agency-Oriented Consumers

Exchange Relationships

Communal Relationships

Panel A: Agency-Oriented Consumers
WEB APPENDIX W6: CONTINUED

Study 4: Interaction Effects among Brand Anthropomorphization, Price Change, and Consumer-Brand Relationship Norms on Price Fairness for Agency-Oriented and Communion-Oriented Consumers

Panel B: Communion-Oriented Consumers

Exchange Relationships

Communal Relationships

□ Anthropomorphized Brand ■ Non-anthropomorphized Brand
Studies 3 and 4: Mediating Mechanisms of Brand Anthropomorphization on Price Fairness

<table>
<thead>
<tr>
<th>Mediator Cell A Point Estimate for the Effect</th>
<th>95 % CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Study 3</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Price Increase:</strong></td>
<td></td>
</tr>
<tr>
<td>Perceived Self-Relevance of Brand’s Actions</td>
<td>Agency-oriented consumers</td>
</tr>
<tr>
<td><strong>Price Decrease:</strong></td>
<td></td>
</tr>
<tr>
<td>Brand’s Commitment to Harmonious Interactions</td>
<td>Communion-oriented consumers</td>
</tr>
<tr>
<td><strong>Study 4</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Price Increase:</strong></td>
<td></td>
</tr>
<tr>
<td>Perceived Self-Relevance of Brand’s Actions</td>
<td>Males in ER*</td>
</tr>
<tr>
<td>Females in CR</td>
<td>-.38</td>
</tr>
<tr>
<td><strong>Price Decrease:</strong></td>
<td></td>
</tr>
<tr>
<td>Brand’s Commitment to Harmonious Interactions</td>
<td>Males in CR</td>
</tr>
<tr>
<td>Females in CR</td>
<td>.36</td>
</tr>
</tbody>
</table>

* ER = Exchange Relationship Norms; CR = Communal Relationship Norms

**Measures**

**Perceived Self-Relevance of Brand’s Actions**
Likert-type scale: 1 = “strongly disagree”; 7 = “strongly agree”

- I almost felt like the (brand name) brand wronged me by increasing the price.

**Brand’s Commitment to Harmonious Interactions**
Likert-type scale: 1 = “strongly disagree”; 7 = “strongly agree”

- (Brand name) is committed to building harmonious interactions with its customers.
Studies 3 and 4: Mediating Mechanisms of Brand Anthropomorphization on Price Fairness

Conceptual explanation of outcomes

As agency-oriented consumers tend to focus on their self-interests, they are more likely to perceive price increases from a humanized (vs. non-humanized) brand as more personally relevant. The bootstrapping results support this view by revealing a significant path from brand humanization to price fairness via perceived self-relevance of a brand’s actions for agency-oriented consumers when a price increases (Studies 3 and 4). The results also show a significant path of brand humanization on price increase fairness via perceived self-relevance for communion-oriented consumers in communal relationship with a brand (Study 4). The significance of this path is consistent with the view that when consumers expect that a humanized brand would take care of consumers’ needs in a communal relationship, a price increase signals that a humanized brand does not care for their needs, thus, leading to a greater perceived relevance of a price increase.

For the price decrease condition, the bootstrapping mediating tests demonstrate that brand anthropomorphization influences price fairness via consumers’ perceptions of a brand’s greater commitment to maintain harmonious interactions for communion-oriented consumers. These results are consistent with our theoretical rationale that communion-oriented consumers view more positive intent from a humanized (vs. non-humanized) brand’s actions (Studies 3 and 4). In addition, a significant path from brand anthropomorphization to price fairness via the perception of a brand’s commitment to harmonious interactions also emerges for agency-oriented consumers who are in a communal relationship with a brand when they view a price decrease (Study 4). These results are in accord with our theoretical premise that communal relationships increase agency-oriented consumers’ perceptions that a brand takes care of their needs to a greater extent when it is humanized (vs. non-humanized).
## WEB APPENDIX W8

**Studies 3 and 4: Correlation Matrices**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Study 3: Price Increase</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Price Fairness</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Cognition Valence Index</td>
<td>-.56*</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>3. Purchase Intentions</td>
<td>.62*</td>
<td>-.44*</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Study 3: Price Decrease</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Price Fairness</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Cognition Valence Index</td>
<td>-.29*</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>3. Purchase Intentions</td>
<td>.14</td>
<td>-.30*</td>
<td>1.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Study 4: Price Increase</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Price Fairness</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Cognition Valence Index</td>
<td>-.59* (-.53*)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>3. Purchase Intentions</td>
<td>.62* (.23)</td>
<td>-.40*(-.33*)</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Study 4: Price Decrease</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Price Fairness</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Cognition Valence Index</td>
<td>-.46*(-.46*)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>3. Purchase Intentions</td>
<td>.51* (.35*)</td>
<td>-.39*(-.47*)</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Notes: the first value is for participants in an exchange relationship; the second value (in parentheses) is for participants in a communal relationship

*p < .05