

**DIFFERENTIAL EFFECTS OF LOCAL IDENTITY AND GLOBAL IDENTITY ON
TWO IMPORTANT ASPECTS OF CONSUMER BEHAVIOR: PRICE-QUALITY
JUDGMENTS AND CREATIVITY**

by

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ABSTRACT

DIFFERENTIAL EFFECTS OF LOCAL IDENTITY AND GLOBAL IDENTITY ON TWO IMPORTANT ASPECTS OF CONSUMER BEHAVIOR: PRICE-QUALITY JUDGMENTS AND CREATIVITY

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The University of Texas at Arlington, 2018

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Globalization has substantially influenced the world economy and also individuals. As a person with a cross-cultural background, it is fascinating to observe that different identities change individuals' behavior. My dissertation focuses on cultural psychology and creativity with a specific focus on analyzing the effect of consumers' local or global identity influences different aspects of consumer decision-making. In the first essay, consumers often rely on price to judge a product's quality, especially when they do not have sufficient knowledge about attributes. However, how is such a tendency affected by consumers' local-global identity, product type (e.g., services vs. goods; hedonic vs. utilitarian), and distribution of customer ratings (convergent vs. divergent)? What ad appeals can be developed to enhance or reduce such a tendency? In this research, we propose that consumers' local (vs. global) identity leads to a greater tendency to make price-perceived quality (PPQ) associations. Perceived quality variance among comparison brands is a key mechanism underlying these effects. Two field studies (Studies 1 and 7), seven experiments (Studies 2-6, 8, and 9), and a systematic review of secondary data (follow-up study of Study 7) provide converging and robust evidence for the effect of local-global identity on PPQ

associations. Consistent with the “perceived quality variance” account, when quality differences among the brands are made salient, PPQ associations of consumers high in global identity (but not local identity) significantly increase, compared to baseline conditions. However, when perceived quality differences are reduced, PPQ associations of consumers high in local identity (but not global identity) significantly decrease. Moreover, product type and distribution of customer ratings represent natural boundaries for the relationship between local-global identity and PPQ associations. We conclude with the implications for managers’ targeting endeavors. We also provide specific tools that marketers can use in ads and POP materials to encourage or discourage them from making PPQ associations. In the second essay, five studies examine the effect of consumers’ local-global identity on creativity and show that individuals with a local identity (compared vs. global identity) are more creative, due to greater relationship focus. When relationship focus is externally enhanced, creativity among consumers high in global identity (but not high in local identity) increases, and when relationship focus is externally suppressed, consumers high in local identity (but not high in global identity) decreases.

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Chapter 1: Consumer's Local-Global Identity and Price-Quality Associations

INTRODUCTION

“The tortilla chip market is pretty unique. When we try to introduce local flavors...it makes people think of their local communities....here, we are careful to make sure that our product is seen as premium. You know....having a twist on the local ingredient is important. Similarly, it is important to have a reasonably higher price since it communicates premium-ness, and then reinforce it with advertising and packaging. But we don't know for sure why such consumers prefer premium brands. That is largely a mystery.”

—A Director of Pricing at a large food products manufacturer with revenues of over \$10 billion

Most marketers strive to find ways to charge high prices for their products. However, it is often difficult to do so without improving objective product performance or adding more attributes to the product. For example, Netflix recently faced a huge uproar when it tried to raise price without increasing perceptions of value. Its management team could have avoided this reaction by segmenting their market and starting the price increase in consumer segments that equate higher prices with higher quality. In the current research, we propose that if marketers focus on consumers with a local (vs. global) identity, their odds of success can drastically increase, as these consumers tend to view higher prices as signals of superior quality.

However, researchers are only starting to understand the role of local and global identities in consumer behavior (e.g., Gao, Zhang, and Mittal 2017). For example, it is unclear if these identities differentially influence one of the most important relationships found in the pricing literature, namely consumers' tendency to use product price to judge quality (i.e., make price-perceived quality associations; Kardes et al. 2004). According to Kantar Worldpanel, 62% of consumers perceive high price as a reflection of higher quality (BusinessWorld 2012). Given its importance, there is renewed interest among researchers in examining the phenomenon (Yan and Sengupta 2011).

How and why may consumers' local-global identity influence price-perceived quality

(PPQ) associations? Extant findings seem to imply that consumers' global (vs. local) identity may affect PPQ more. For example, consumers with a global (vs. local) identity tend to have an abstract (instead of concrete) construal (Ng and Batra 2017), which in turn positively affects PPQ (Yan and Sengupta 2011). In contrast, we propose that consumers with a local (vs. global) identity are more likely to make PPQ associations. Although there can be several reasons for this relationship, we focus on one, namely greater perceived quality variance. Specifically, we propose that a salient local (vs. global) identity is associated with a general dissimilarity-focus mindset, which in turn enhances perceived variation in the quality of brands in the marketplace, leading to higher PPQ associations. Previous research suggests that consumers with a salient local identity (henceforth, "locals"), but not those with a salient global identity (henceforth, "globals"), focus on local events and tend to see more disparities between local and non-local communities (Arnett 2002; Zhang and Khare 2009). In contrast, globals, but not locals, view the world as a global village and focus on commonalities across comparative entities (Ng and Batra 2017). Accordingly, we propose that locals (vs. globals) tend to have a general dissimilarity-focus (vs. similarity-focus) mindset, and therefore perceive greater quality differences among comparative brands in the marketplace. The enhanced salience of quality variance, in turn, leads people to focus more on price—one of the most direct and obvious cues used to compare brands—to infer product quality (Lalwani and Forcum 2016; Monroe 2003). We further demonstrate that contextual and product-related factors that influence perceived quality variance (e.g., services vs. goods, hedonic vs. utilitarian products, convergent vs. discriminant reviews) moderate the influence of local-global identity on PPQ.

The issues we address in this research have significant implications for the cross-cultural and pricing literatures. First, by examining the role of local-global identity, we bring a fresh perspective to the cross-cultural literature, which is dominated by the individualism-collectivism

dimension (Lalwani and Shavitt 2013; Shavitt et al. 2006). Second, we contribute to the pricing literature by examining how an important but underexplored factor, namely local-global identity, influences PPQ associations. Third, we are the first to uncover perceived quality variance as a new consequence of local and global identity. Fourth, we demonstrate that the strength of the association between local-global identity and PPQ associations varies by factors that influence perceived variance in brand quality. Importantly, we go beyond the findings of Ng and Batra (2017) who showed that, because global (local) identity induces a more abstract or higher level (vs. concrete or lower level) construal, it enhances promotion (prevention) goals, and those of Yan and Sengupta (2011), who showed that high (vs. low) construal level increases consumers' reliance on price to judge product quality. Notably, these authors did not link a local-global identity with PPQ associations and did not shed insights on the underlying mechanisms and boundary conditions. Further, as noted, this stream of work leads to the prediction that a local (vs. global) identity may decrease PPQ associations, which is contrary to our core hypothesis.

Managerially, our findings suggest that marketers of luxury products can use various means (e.g., ad appeals, local movement pamphlet) to situationally activate consumers' local identity, because consumers have a greater tendency to use price to judge a product's quality when their local identity is salient. Further, due to the perceived quality variance account, for products that charge a premium price over competing products, marketers can use situational cues (e.g., expert opinion, and distribution of customer ratings) to increase perceived quality variance and facilitate consumers' PPQ associations, whereas for products that take a low-price strategy, marketers can use situational cues to reduce, rather than increase, perceived quality variance. Besides, for services (vs. physical goods) and hedonic (vs. utilitarian) products that are usually perceived as having higher perceived quality variance, marketers do not need to put in much effort and resource to convince consumers about price-quality associations, because these

products naturally induce consumers to have high levels of PPQ. Our findings also suggest the importance of adapting marketing strategies to different regions: In places where local identity is likely to be salient (e.g., rural areas), consumers naturally have high levels of associations between price and premium-ness. In contrast, in places where global identity is more salient (e.g., metropolitan areas), marketing campaigns are needed to enhance consumers' PPQ associations so that consumers perceive higher prices to be signals of superior quality. Similar strategies can be applied to many countries around the world that are high in local or global identity (Gao, Zhang, and Mittal 2017). Next, we discuss the relationship between local-global identity and PPQ associations, followed by hypothesis development and empirical testing using both field studies and laboratory experiments.

HYPOTHESIS DEVELOPMENT

Recent research delineates two distinct identities of consumers, namely local identity and global identity, reflecting how strongly individuals associate with the local and the global community, respectively (Reed et al. 2012). Individuals whose local identity is salient ('locals') are faithful and respectful of local traditions, interested in local events, and identify with people in their local community, whereas those with a salient global identity ('globals') favor globalization, view the world as a "global village," and blur the lines of distinction between both people and products (Arnett 2002; Zhang and Khare 2009). Further, consumers high (vs. low) in local identity prefer local products and brands, whereas those high (vs. low) in global identity prefer global products and brands (Zhang and Khare 2009).

Individuals from more globalized countries, such as the USA and Canada, tend to have a stronger global identity because they are more likely to meet with different types of people, encounter different cultures, and access stories and news from other countries. However, those from more localized countries (e.g., China, India) tend to have a stronger local identity due to

their restricted access to other cultures (Arnett 2002; Gao, Zhang, and Mittal 2017). Research further suggests that global and local identities can also be fruitfully activated via priming procedures (e.g., Tu, Khare, and Zhang 2012; Zhang and Khare 2009).

At the national level, there is evidence that people in countries with different levels of local-global identity differ in their tendencies to use price to infer product quality. For example, Chinese and Indian consumers (who are high in local identity) make stronger price-quality associations than do American and Canadian consumers (who are high in global identity) (Völckner and Hofmann 2007). Similarly, Polish (high in local identity) make higher PPQ associations than Germans (high in global identity) (Zielke and Komor 2015). Further, these findings are inconsistent with those of another study, which shows that there is no difference in PPQ associations across different countries (Dawar and Parker 1994). However, since the focus of these studies is not on cultural differences, we do not know whether local-global identity was responsible for these results. Moreover, some previous research has attributed these national differences to cultural dimensions other than local-global identity (Lalwani and Forcum 2016; Lalwani and Shavitt 2013). More importantly, no previous research has offered theoretical explanations for the possible effect of local-global identity on PPQ associations. A clearer theorization of the mechanism through which local-global identity affects PPQ associations will advance our understanding of how consumers differ in their propensity to make price-quality inferences and why. Although there can be several reasons why locals (vs. globals) may make PPQ associations, we focus on one, namely perceived quality variance, as discussed next.

Local-Global Identity and Perceived Variance among Comparative Objects

A fundamental characteristic of humans is to make comparative judgments (Mussweiler 2003). Research suggests that people tend to follow one of two comparison processes, namely dissimilarity-focus and similarity-focus, to make judgments (Mussweiler 2001, 2003). We

propose that locals (vs. globals) tend to focus more on dissimilarities than similarities, because locals (vs. globals) tend to discern greater differences between local and non-local communities, which motivate them to associate more values with local traditions and local events. In contrast, since globals view the world as a “global village,” and blur the lines of distinction between both people and products, they are more likely to focus on similarities. For example, Rhee, Uleman, and Lee (1996) showed that Koreans (who are high in local identity) draw clear distinctions between in-group and out-group members, whereas Americans (who are high in global identity) do not. In addition, prior studies also point to an association between high (vs. low) degrees of local identity and perceived dissimilarity from outgroup members. In particular, activating one’s own traditions and values can enhance intergroup aggression, especially when the ingroup and outgroup are in conflict (Struch and Schwarz 1989). Reversely, research points to a link between openness to diversity (a characteristic of globals but not locals) and a similarity-focus mindset. For example, openness to diversity reduces perceived difference from other group members (Hobman, Bordia, and Gallois 2003).

The dissimilarity-focus among locals (vs. globals) also extends to non-social domains. For example, when asked to answer partially redundant questions (e.g., to rate both academic satisfaction and general life satisfaction), Chinese (who are high in local identity) spontaneously recognize the redundancy problem (i.e., academic satisfaction is part of general life satisfaction) and adjust their responses accordingly; however, Germans (who are high in global identity) do not detect the redundancy (Schwarz, Oyserman, and Peytcheva 2010). Similarly, Li et al. (2018) showed that, when evaluating two videos, individuals with overseas experiences (high in global identity) are able to identify more similarities between these two videos than those without overseas experiences (high in local identity).

Dissimilarity-focus (vs. similarity-focus) leads individuals to engage in product

evaluations in different ways. When local identity is salient, individuals tend to have a dissimilarity-focus mindset and perceive greater variance among brands in the marketplace. The perception that brands are dissimilar should motivate locals to look for cues to make sense of the distinctions. However, when global identity is salient, individuals tend to have a similarity-focus mindset and see things as homogeneous and similar, leading to lower perceived quality differences among brands in the marketplace. The perception that brands are similar demotivates consumers from expending effort to differentiate them (c.f., Mussweiler 2003) and, as a consequence, discourages them from looking for cues that enable such distinction. At a broad level, our reasoning is consistent with prior findings that the type of social identity activated can influence the information-processing mode the individual adopts (Brewer 1991; Srull and Wyer 1989). Next, we discuss how these differences may influence the tendency to use price as an indicator of product quality.

Local-Global Identity, Perceived Variance, and PPQ Associations

The validity of our focal hypothesis that perceived quality variance mediates the relation between local-global identity and PPQ associations (see figure 1) relies on the proposed link between perceived variance among comparative brands and PPQ associations. To the best of our knowledge, no previous research has examined this relationship; however, we expect the association for theoretical reasons as elaborated below.

--- Insert figure 1 about here ---

Consumers who perceive greater variance among comparative brands may be more motivated to look for cues to mentally differentiate the brands, as doing so may enable them to satisfy the fundamental need of humans to make sense of the world around them (Lalwani and Forcum 2016; Thompson et al. 2001). In situations where nonprice cues are not diagnostic, such as when performance-related attributes are not alignable, perceived dissimilarity among

comparative brands drives consumers to rely on alignable cues—such as price—that readily enable comparison between brands to infer quality. Indeed, price is intuitively one of the most important alignable product attributes enabling consumers to directly and quickly compare brands (Lalwani and Forcum 2016; Monroe 2003). In fact, it is quite difficult to compare brands using nonnumeric cues, particularly when those features are not alignable (Chakravarti and Janiszewski 2003; Lalwani and Forcum 2016; Monroe 2003). Research also suggests that price is a dominant and salient attribute that profoundly influences judgments (Lalwani and Monroe 2005; Monroe 2003). Price is also, perhaps, the most commonly found attribute across products and services (Monroe 2003), is an important alignable attribute that readily enables comparisons between brands (Best 2012; Monroe 2003), and can be organized from smallest to largest, and thus is more easily structured compared to other nonnumeric forms of information (Lalwani and Forcum 2016). Hence, people seeking to make sense of dissimilar objects (i.e., locals, compared to globals) are more likely to use price as a cue. When they need to make a determination of brand quality, these consumers may be more likely to make PPQ associations.

In contrast, those who perceive low variation in quality tend to view high- and low-priced brands as not differing much in quality, and therefore are less motivated to look for and use cues that distinguish the quality of brands. As a result, such individuals may be less likely to use price as a cue for inferring product quality. Consistent with our reasoning, when consumers perceive the difference between two brands to be obvious, they selectively access information that supports the dissimilarity, leading to a contrast effect (Xia, Monroe, and Cox 2004). However, when perceived difference across brands is low, consumers are likely to view the quality of high- and low-priced brands to be similar, and are thus less likely to use any cues (e.g., price) to differentiate the brands. Hence, we hypothesize:

H₁: When evaluating brand quality, locals have a greater tendency than globals to make

PPQ associations.

H₂: The effect of local (vs. global) identity on PPQ associations is mediated by perceived variance among comparative brands.

Boundary Conditions

To advance our understanding of the underlying role of perceived quality variance, we also examine potential boundary conditions where the effect of local-global identity on PPQ associations may be stronger or weaker. We have argued that locals (vs. globals) perceive greater variance in the quality of brands, which increases their tendency to make PPQ associations. We therefore anticipate that, when quality differences among brands are made salient through a contextual cue (compared to a control condition wherein they are unchanged), globals—who by nature perceive less quality variance and have greater potential for increase—would be more likely to notice the differences among the brands and thus use price as an indicator of brand quality. However, such a contextual cue is less likely to increase the PPQ associations of locals, whose tendency to see variation (and hence, to make PPQ associations) is already high (“ceiling effect”). As a result, when quality differences among brands are made salient, locals and globals should not differ in their tendency to make PPQ associations.

In a similar vein, when quality variance is contextually reduced, we expect that locals—whose baseline tendency to discriminate among brands is high and has a greater potential for decrease—should be less likely to perceive brands as different, and therefore have a lower tendency to make PPQ associations, compared to a control condition in which quality variance is unchanged. However, globals’ baseline tendency to discriminate brands is low and is difficult to decrease further (“floor effect”). Hence, their tendency to make PPQ associations should be unchanged when quality variance is reduced, relative to the control conditions. We hypothesize:

H_{3a}: When the quality difference among brands is made salient (compared to a control condition in which quality variance is not made salient), globals’ tendency to make

PPQ associations would be elevated, whereas locals' tendency to use PPQ associations will be unaffected.

H_{3b}: When the quality difference among brands is reduced (compared to a control condition in which quality variance is not made salient), locals' tendency to make PPQ associations would be decreased, whereas globals' tendency to use PPQ associations would be unaffected.

In real-life situations, consumers make choices not just for physical goods but also for services. Given that services are intangible and heterogeneous, the perceived quality difference of services is by nature greater than that of goods (Lovelock and Gummesson 2004). Further, consumers are more likely to rely on observable attributes, such as price, to infer unobservable service quality (Roest and Rindfleisch 2010). Greater variation in the quality of services (vs. goods) should increase globals' tendency to make PPQ associations because their baseline tendency to differentiate brands is low and has greater potential for increase. In contrast, since locals' tendency to make PPQ associations is already high, there is little room to increase it further (the same "ceiling effect" argument outlined earlier). As a result, they should exhibit little change in PPQ associations when evaluating services (vs. goods).

H₄: When evaluating services (compared to evaluating goods), globals' tendency to make PPQ associations would be significantly higher, whereas locals' tendency to make PPQ associations would be unaffected.

Beyond product type, another context that naturally changes consumers' perceived quality difference is when they see divergent or convergent customer ratings on products that interest them. Online reviews increasingly influence consumer purchase decisions (Song, Moon, Chen, and Houston 2018). However, these reviews do not necessarily agree with each other. Convergent customer ratings in a product category (i.e., when most people have similar ratings for products in that category) are likely to give customers an impression that various products in this category are of similar quality (i.e., low quality variance). In contrast, divergent customer ratings (i.e., people's opinions are all over the place and there is no dominant view) are likely to

give customers an impression that the quality of products in this category differ greatly (i.e., high quality variance). Based on **H₃**, we have:

H_{5a}: When the distribution of customer product reviews is divergent (compared to a control condition), globals' tendency to make PPQ associations would significantly increase, whereas locals' tendency to make PPQ associations would be unaffected.

H_{5b}: When the distribution of customer product reviews is convergent (compared to a control condition), locals' tendency to make PPQ associations would be significantly reduced, whereas globals' tendency to make PPQ associations would be unaffected.

OVERVIEW OF STUDIES

The current research focuses on situations where nonprice cues are not diagnostic, such as when nonprice cues are not alignable, or when they contain trade-offs. This focus is in line with prior research in the domain of price-quality judgments, where scholars have mainly focused on situations in which consumers need to make judgments on product quality with limited knowledge about product attributes (Cronley et al. 2005; Kardes et al. 2004), or when nonnumeric attributes are not alignable (Chakravarti and Janiszewski 2003; Lalwani and Forcum 2016; Monroe 2003). Hence, we limited our investigation to situations where diagnosticity of nonprice cues is low, including evaluating product quality in a real-life setting (Studies 1 and 7), when there is no clear association between nonprice cues and quality (Study 8 in Web Appendix 1), when nonnumeric attributes are not alignable (Studies 2-5, and Study 9 in Web Appendix 2), and when there are trade-offs between nonprice cues ("low diagnosticity" condition in Study 6).

Study 1 provided initial evidence on the link between local-global identity and PPQ associations in a shopping mall with real consumers (**H₁**). Study 2 replicated Study 1's findings in a different context and demonstrated perceived quality variance as a key mechanism underlying these effects (**H₂**). The next three studies examined several contextual moderators, including salience of quality variance in Study 3, product type (services vs. goods) in Study 4, and distribution of customer ratings (convergent or divergent) in Study 5. Study 6 primed both

local-global identity and construal level to examine their differential effects on reliance of price as an indicator of quality, and reconciled the seemingly contradictory predictions between our theory and those of Construal Level Theory. Study 7 brought our theory to the field to examine how situationally activated local/global identity affects consumers' monetary expenditures. The follow-up study to Study 7 provides the results of a meta analysis of previous studies on PPQ associations conducted across different countries. Finally, to demonstrate managerial relevance, results of in-depth interviews with 15 senior level managers are reported in the General Discussion section. These managers were from Fortune 500 firms across different industries, such as apparel, smartphones, baby and beauty products, wine and spirits, pet supplies, beverages, food, and personal care products.

STUDY 1: THE SHOPPING MALL STUDY

The first study was designed to test the effect of local (vs. global) identity on PPQ associations with real consumers in a shopping mall, and to assess whether local-global identity can be situationally activated by managers in a real consumption setting. Respondents were 164 shoppers at a shopping mall in the city of Hohhot, China, who were intercepted by the researchers and shown a brochure that described either a "Think Local Movement" or a "Think Global Movement" to manipulate local and global identity, respectively (see Gao, Zhang, and Mittal 2017; Web Appendix 3 contains the actual stimuli). Thereafter, participants were told that a well-known apparel company was considering releasing some shoes and caps into the mall; the company had hired the researchers to conduct a test on consumers' quality perceptions of their products. The researchers then showed them three pairs of running shoes and three caps, with price tags attached (Shoe A: ¥299; Shoe B: ¥599; Shoe C: ¥799; Cap A: ¥39; Cap B: ¥69; Cap C: ¥99). Following Lalwani and Shavitt (2013), participants rated all six products on

quality, reliability, and dependability (1 = *Very Low* and 7 = *Very High*), which were averaged to form a quality evaluation for both shoes (α 's = .89 to .90) and caps (α 's = .88 to .89).

Following Zhang and Khare (2009), the validity of the identity manipulation was assessed via a 3-item, 7-point scale anchored by 1 = *Global Citizen* and 7 = *Local Citizen*. A sample item included “*For the time being, I mainly identify myself as a...*” ($\alpha = .86$). Results indicated that participants assigned to the local (vs. global) identity condition perceived themselves more as a local citizen ($M_{\text{Local}} = 5.22$ vs. $M_{\text{Global}} = 3.75$, $t(162) = 5.37$, $p < .01$). Participants also reported their age, gender, and household income.

A 2 (identity) \times 2 (product category; dummy coded 1 = “shoes” and 0 = “caps”) repeated-measure ANOVA on the correlation between retail prices and subjective quality evaluations (i.e., PPQ associations) revealed a significant main effect of identity ($F(1, 162) = 8.36$, $p < .01$), but non-significant effects of product category ($F(1, 162) = 2.10$, $p > .15$) or product category \times identity interaction ($F(1, 162) = .81$, $p = .37$), suggesting that PPQ associations did not vary by product category. Hence, the data were pooled across the product categories. For both product categories, participants in the local (vs. global) identity condition made significantly higher PPQ associations, as predicted in **H₁** (Shoes: $M_{\text{Local}} = .68$ vs. $M_{\text{Global}} = .40$; $t(162) = 2.98$, $p < .01$; Caps: $M_{\text{Local}} = .71$ vs. $M_{\text{Global}} = .50$; $t(162) = 2.15$, $p < .05$). Re-running the analyses with age, gender, and household income as covariates did not change the pattern of results; none of these demographic variables was significant (all p 's $> .40$).

Follow-up study

The follow-up study was designed to replicate Study 1's finding in the USA, using 69 consumers (49 men; $M_{\text{age}} = 31\text{-}40$ years) shopping at an apparel store in a large, upscale shopping mall. Respondents were greeted by a store employee and guided to a table, where they saw four caps marked with different prices (Cap A: \$10; Cap B: \$20; Cap C: \$30; Cap D: \$40).

They were asked to rate the quality of each cap on a 0 to 100 scale. For each participant, the correlation between retail prices and quality ratings was calculated, which served as our dependent variable. Local/global identity was manipulated by the T-shirt the employee was wearing. The local-identity T-shirt contained the logo “Think Local” and the phrase “supporting the link to local community,” whereas the global-identity T-shirt contained the logo “Think Global” and the phrase “supporting the link to the whole world” (see Web Appendix 4 for a picture of these T-shirts). After completing quality ratings for each cap, participants rated the 3-item local-global identity manipulation check questions ($\alpha = .91$) as in Study 1. Results showed that participants in the local (vs. global) identity condition perceived themselves more as local citizens ($M_{\text{Local}} = 5.84$ vs. $M_{\text{Global}} = 4.81$, $t(67) = 2.24$, $p < .05$) and made significantly higher PPQ associations ($M_{\text{Local}} = .50$ vs. $M_{\text{Global}} = .02$; $t(67) = 3.19$, $p < .01$).

Using actual evaluation in a real-life setting, Study 1 supported **H₁** that locals (vs. globals) have a greater tendency to make PPQ associations. We conducted another study (see Study 8 in Web Appendix 1) to test the generalizability of our findings over single-quality-cue and multiple-quality-cue formats. Results of this study replicated the findings of Study 1 and demonstrated that the effect of local-global identity on PPQ associations held in both multi-quality-cue and single-quality-cue conditions.

The next study sought to test the mechanism underlying the link between local/global identity and PPQ associations. As noted, although several variables can potentially account for the relationship, we focused on one, namely perceived quality variance.

STUDY 2: THE ROLE OF PERCEIVED QUALITY VARIANCE

Participants, Design, and Procedure

One hundred and ninety-six MTurk workers (89 men; $M_{\text{age}} = 37.25$, $SD = 12.32$) from the U.S. participated in exchange for a small payment. The study entailed a 2 (identity: local vs.

global) \times 2 (price level: high vs. low) between-subjects design. Following Ng and Batra (2017), local-global identity was manipulated using a sentence-unscrambling task with 10 sentences (the first 10 items in Web Appendix 5). Those assigned to the local identity condition were instructed to construct 10 grammatically correct sentences using such scrambled sentences as “*Events know I local.*” Those in the global identity condition were asked to complete the same task using 10 different sentences, such as “*Events know I global.*” The manipulation check questions ($\alpha = .94$) were as in Study 1.

Then, participants answered three questions on dissimilarity focus (1 = *Strongly Disagree* and 7 = *Strongly Agree*; $\alpha = .60$): (1) *At this time, I feel that I could easily identify differences in a set of comparative objects*, (2) *For the time being, I am sensitive to differences across different objects*, and (3) *At this moment, I focus more on dissimilarity when comparing objects*.

Thereafter, participants answered seven questions on perceived quality variance using a scale adapted from Bao, Bao, and Sheng (2011) (1 = *Strongly Disagree* and 7 = *Strongly Agree*; $\alpha = .90$): (1) *The quality of alarm clocks in the marketplace varies a lot*, (2) *There are significant differences among alarm clocks*, (3) *The quality of the various alarm clocks in the market is not the same*, (4) *The performance of alarm clocks differs a lot*, (5) *As far as quality is concerned, the brand of alarm clocks matters a lot*, (6) *There is huge variance in the quality of alarm clocks available in the market today*, and (7) *Alarm clocks differ significantly on effectiveness*.

Next, following Lalwani and Forcum (2016), participants viewed information about three brands each of alarm clocks: the target brand and two other comparison brands, which provided baseline price information. Participants were randomly assigned to either the high- or low-price condition, using identical product descriptions across conditions. The target brand was priced the highest (lowest) in the high (low) price condition, with equal price difference between the other two baseline brands (see Web Appendix 6). To minimize the potential confounds caused by

brand names or price range, we used fictitious brand names (e.g., “Alarm clock L”) in the study. Also, we kept the price range the same across price conditions. After reading the brand descriptions, participants rated the target brands on the same 3-item quality measure as in Study 1, which were averaged ($\alpha = .84$).

Results and Discussion

Manipulation Check. As expected, participants primed with local identity perceived themselves more as local citizens ($M = 5.10$) compared to those primed with global identity ($M = 4.32$, $t(194) = 3.57$, $p < .01$), suggesting that our manipulation was effective.

Local-Global Identity and PPQ Associations. A 2 (identity) \times 2 (price) ANOVA on the quality index revealed no effect of local-global identity or price (p 's $> .11$), but, more importantly, a significant identity \times price two-way interaction ($F(1, 192) = 4.55$, $p < .05$). Consistent with **H₁**, locals rated the target brand as having significantly higher quality in the high-price condition ($M = 5.54$) than in the low-price condition ($M = 5.03$, $t(102) = 2.63$, $p < .01$). In contrast, the quality ratings for globals did not vary across the two price conditions ($M_{\text{Low Price}} = 4.98$ vs. $M_{\text{High Price}} = 4.92$; $t(90) = .29$, $p = .77$).

Mediation Analysis. A bootstrapping procedure with 10,000 iterations using Model 15 of Hayes' (2012) PROCESS showed that the indirect effect of local (vs. global) identity on PPQ associations via perceived quality variance was positive (.11) and significant (95% CI, .02–.29 excluded zero), supporting **H₂**. We further analyzed the mediated moderation model using Muller, Judd, and Yzerbyt's (2005) approach. This mediated moderation was tested by first regressing the quality index onto local-global identity, price, and their interaction term. This analysis revealed an identity \times price interaction ($\beta = .26$, $t = 2.13$, $p < .05$). Second, the same model was used with perceived quality variance (i.e., our mediator) as a dependent variable. This analysis revealed a significant effect of local-global identity ($\beta = .20$, $t = 2.02$, $p < .05$), but a

non-significant effect of the identity \times price interaction ($\beta = .02, t = .16, p = .87$). Third, we regressed quality index onto the same model plus perceived quality variance and its interaction with price. As expected, we found a significant perceived quality variance \times price interaction ($\beta = .66, t = 2.20, p < .05$). Moreover, this last model revealed that the identity \times price interaction was no longer significant ($\beta = .20, t = 1.71, p = .09$), suggesting a complete mediated moderation.

Study 2 demonstrated that the effect of local (vs. global) identity on PPQ associations is mediated by perceived quality variance, in support of **H2**. Relative to globals, locals perceived higher levels of quality difference among comparative brands, which in turn led to greater PPQ associations. As shown in Web Appendix 7, price sensitivity and risk aversion cannot be alternative explanation of our findings.

Further, our theorization suggests that local (vs. global) identity induces a general dissimilarity-focus mindset, which in turn enhances perceived quality variance, leading to higher PPQ associations. To assess the proposed serial mediation, we followed previous research (Murali and Yang 2013) to test two mediation models. We first tested whether dissimilarity focus mediates the effect of local-global identity on perceived quality variance. We then tested whether perceived quality variance mediates the effect of dissimilarity focus on PPQ associations (mediated-moderation model).

As expected, for the first model, a bootstrapping with 10,000 iterations using Model 4 showed that the indirect effect of local-global identity on perceived quality variance through dissimilarity focus was positive (.18) and significant (95% CI, .04–.36 excluded zero). Furthermore, the second mediated-moderation model (Model 15) showed that the indirect effect of dissimilarity focus on PPQ associations through perceived quality variance was also positive

(.12) and significant (95% CI, .01—.28 excluded zero).¹ These results provide support for our conceptualization. In the next study, we sought to provide further evidence of the mechanism by manipulating the mediator “perceived quality variance” (Spencer, Zanna, and Fong 2005).

STUDY 3: SALIENCE OF QUALITY VARIANCE

Participants, Design, and Procedure

Three hundred and eighty-seven MTurk workers (134 men; $M_{\text{age}} = 39.84$, $SD = 12.82$) from the U.S. participated in exchange for small monetary incentives. The experiment consisted of a 2 (identity: local vs. global) \times 2 (price level: high vs. low) \times 3 (quality variance: enhanced, reduced, unchanged) between-subjects design.

Local and global identity were manipulated as in Study 2. Thereafter, participants were randomly assigned to one of the three quality variance conditions, which used a news report from a reputable magazine. In the quality variance-enhanced [variance-reduced] condition, participants read a report from an interview with an expert regarding the quality of products in the marketplace, which included an excerpt stating the expert’s opinion that “.....*durable appliances offered by different manufacturers in fact do [do not] have significant differences in product quality*”. In the quality variance unchanged (control) condition, no such news was presented. Afterwards, participants were shown the same three brands (one target brand and the other two baseline brands) for alarm clocks as in study 2. We added microwave (see Web Appendix 7 for the product stimuli) as an additional product to enhance the generalizability of our findings. Participants were asked to rate the quality, reliability, and dependability of the target brands ($\alpha_{\text{alarm clock}} = .90$ and $\alpha_{\text{microwave}} = .93$).

Results and Discussion

¹ The mediated-moderation model using Muller, Judd, and Yzerbyt’s (2005) approach indicated a complete mediated moderation.

Manipulation Check. Participants were asked to recall the news and indicate the expert's opinion about product quality (1 = *has significant differences across products*; 2 = *does not have much difference across products*; 3 = *I don't know about this information*). Results showed that most participants in the variance-enhanced condition selected "1" (93.8%), whereas most participants in the variance-reduced condition selected "2" (89.5%), and most participants in the variance-unchanged (i.e., control) condition selected "3" (73.6%; $\chi^2(4) = 504.48, p < .01$). Hence, quality variance was successfully manipulated.

Local-Global Identity and PPQ Associations. We conducted a 2 (identity) \times 2 (price) \times 3 (quality variance) \times 2 (product category; dummy coded 1 = "alarm clock" and 0 = "microwave") repeated-measure ANOVA on the quality index. Results showed that there was only a main effect of product category ($F(1, 385) = 16.93, p < .01$); no other effects were significant (p 's ranged from .11 to .51), suggesting that PPQ associations did not vary by product category. Hence, the data were pooled across the product categories.

Results of the pooled data revealed no main effect of identity ($F(1, 385) = 1.96, p = .16$), a significant main effect of price ($F(1, 385) = 20.79, p < .01$) and variance ($F(2, 385) = 3.00, p = .05$), no effect of identity \times variance two-way interaction ($F(2, 385) = .82, p = .44$), and significant two-way interactions between identity and price ($F(1, 385) = 6.40, p < .05$) and between price and variance ($F(1, 385) = 7.77, p < .01$). More important and consistent with our predictions in **H3a** and **H3b**, there was a significant three-way interaction among identity, price, and quality variance ($F(2, 385) = 3.17, p < .05$).

In the control (i.e., variance-unchanged) condition, a 2 (identity) \times 2 (price) ANOVA revealed no effect of identity ($F(1, 385) = .95, p = .33$) or price ($F(1, 385) = 1.70, p = .19$), and a significant identity \times price two-way interaction ($F(1, 385) = 9.44, p < .01$). Locals rated the target brands as superior in quality in the high-price condition ($M = 4.88$), compared to the low-

price condition ($M = 4.21$, $t(68) = 3.93$, $p < .01$). However, globals did not rate the brands as significantly different across the price conditions ($M_{\text{Low Price}} = 4.53$ vs. $M_{\text{High Price}} = 4.26$, $t(53) = 1.26$, $p = .21$), supporting **H₁**.

Test of Hypothesis 3a. Next, we compared the PPQ associations in the variance-enhanced (vs. unchanged) conditions among locals and globals separately. For globals in the variance-enhanced and unchanged conditions, a 2 (variance) \times 2 (price) ANOVA revealed no effect of salience ($F(1, 385) = .18$, $p = .68$) or price ($F(1, 385) = 1.33$, $p = .25$), and a significant quality-variance \times price two-way interaction ($F(1, 385) = 8.40$, $p < .01$), suggesting that enhancing the salience of quality variance significantly influenced globals' tendency to make PPQ associations. Contrasts suggested that globals made PPQ associations in the variance-enhanced condition ($M_{\text{Low Price}} = 4.02$ vs. $M_{\text{High Price}} = 4.65$; $t(63) = -3.75$, $p < .01$), but not in the variance-unchanged condition ($M_{\text{Low Price}} = 4.53$ vs. $M_{\text{High Price}} = 4.26$; $t(53) = 1.26$, $p = .21$; figure 2).

For locals in the variance-enhanced and unchanged conditions, a 2 (variance) \times 2 (price) ANOVA revealed no effect of salience ($F(1, 385) = .01$, $p = .91$) and a significant effect of price ($F(1, 385) = 36.61$, $p < .01$). Consistent with our hypothesis, there was no effect of variance \times price two-way interaction ($F(1, 385) = 2.03$, $p = .16$), suggesting that enhancing the salience of quality variance did not change locals' tendency to make PPQ associations. Locals in both variance-enhanced ($M_{\text{Low Price}} = 4.02$ vs. $M_{\text{High Price}} = 5.11$; $t(62) = -5.39$, $p < .01$) and variance-unchanged ($M_{\text{Low Price}} = 4.21$ vs. $M_{\text{High Price}} = 4.88$; $t(68) = -3.93$, $p < .01$) conditions made PPQ associations. Taken together, these results supported **H_{3a}**.

Test of Hypothesis 3b. Next, we compared the PPQ associations in the variance-reduced (vs. unchanged) conditions among locals and globals separately. For globals in the variance-enhanced and unchanged conditions, a 2 (variance) \times 2 (price) ANOVA revealed no effect of variance ($F(1, 385) = 3.76$, $p = .06$), price ($F(1, 385) = .14$, $p = .71$), or the variance \times price two-

way interaction ($F(1, 385) = 2.08, p = .15$), suggesting that reducing the salience of quality variance did not change globals' tendency to make PPQ associations. Contrasts showed that globals did not make PPQ associations in the variance-reduced ($M_{\text{Low Price}} = 4.61$ vs. $M_{\text{High Price}} = 4.77; t(77) = -.68, p = .50$) or variance-unchanged ($M_{\text{Low Price}} = 4.53$ vs. $M_{\text{High Price}} = 4.26; t(53) = 1.26, p = .21$) conditions (see figure 2).

For locals in the variance-reduced and unchanged conditions, a 2 (variance) \times 2 (price) ANOVA revealed no effect of salience ($F(1, 385) = .64, p = .42$), a significant effect of price ($F(1, 385) = 6.25, p < .05$), and a significant variance \times price two-way interaction ($F(1, 385) = 4.47, p < .05$), suggesting that reducing the salience of quality variance significantly influenced locals' tendency to make PPQ associations. Contrasts showed that locals did not make PPQ associations in the variance-reduced condition ($M_{\text{Low Price}} = 4.63$ vs. $M_{\text{High Price}} = 4.69; t(62) = -.25, p = .80$), but did so in the variance-unchanged condition ($M_{\text{Low Price}} = 4.21$ vs. $M_{\text{High Price}} = 4.88; t(68) = -3.93, p < .01$; figure 2). These results lent support to **H3b**.

--- Insert figure 2 about here ---

Our framework suggests that locals (vs. globals) perceive greater quality variance among comparative brands, which in turn, leads them to rely on price to infer the quality of these brands. Accordingly, situationally enhancing the salience of quality variance increased globals' but not locals' tendency to make PPQ associations, compared to a control condition in which quality variance was not changed. Similarly, situationally reducing the salience of quality variance (compared to a control condition in which quality variance was unchanged) reduced locals' tendency to use price to indicate quality, but did not affect globals' tendency to make PPQ associations, because globals already perceived low variance in quality to begin with.

The next two studies were designed to extend Study 3 by using natural moderators, including product type (goods vs. services; Study 4) and the distribution of customer ratings

(convergent, divergent, control; Study 5). If our proposed “perceived quality variance” mechanism is correct, when the evaluation objects are services (vs. goods) or when the ratings from other customers are divergent (vs. control), we should replicate the findings in the variance-enhanced condition, as stated in **H4** and **H5a**. However, when the ratings are convergent (vs. control), we should replicate the findings in the variance-reduced condition (**H5b**).

STUDY 4: SERVICES VERSUS GOODS

Participants, Design, and Procedure

Two hundred and seventy-eight MTurk workers (101 men; $M_{\text{age}} = 39.89$, $SD = 12.22$) from the U.S. participated in a study comprising of a 2 (identity: local vs. global) \times 2 (price: high vs. low) \times 2 (product type: services vs. goods) between-subjects design. The procedure, manipulations of local-global identity and price, and measures were the same as in Study 3, except for two important differences. First, we included three services (carpet cleaning, services landscape, and airline services; see Web Appendix 8 for stimuli). Second, in addition to the two products used before (i.e., alarm clock and microwave), we added sewing machine as an additional product to ensure equivalence with the number of services. After examining descriptions of the three brands (i.e., the target brand and two other brands as baseline) for each product, participants rated the quality, reliability, and dependability of the target brands. As in Studies 2 and 3, these items were averaged to form a quality index (α s ranging from .82 to .93).

We recruited 40 MTurk workers (16 men; $M_{\text{age}} = 30.43$, $SD = 9.55$) from the U.S. to verify the assumption that services are perceived to vary more in quality than goods. For each of the six products noted above (3 goods and 3 services), participants rated the first two items of the perceived quality variance measure from Study 2 (α 's ranged from .61 to .78; see Web Appendices 7 and 8 for stimuli). Results suggested that participants perceived services ($M = 5.09$) to have greater variance in quality, compared to goods ($M = 4.50$, $t(39) = 4.11$, $p < .01$).

Results

For goods, the data were analyzed using a 2 (identity) \times 2 (price) \times 3 (category of goods; dummy coded as 2 = “sewing machine”, 1 = “alarm clocks” and 0 = “microwave”) repeated-measure ANOVA with quality index as the dependent variable. The analysis revealed that none of the effects related to category of goods was significant, (p 's ranged from .27 to .38). Also for services, the data were analyzed using a 2 (identity) \times 2 (price) \times 3 (service type) repeated-measure ANOVA with quality index as the dependent variable. The analysis revealed a significant main effect of service category ($F(1, 131) = 3.83, p = .05$), but none of its interactions with other factors were significant (p 's ranged from .52 to .62). Hence, the data were pooled separately for goods and services.

Using the pooled data, we conducted a 2 (identity) \times 2 (price) \times 2 (product type: physical goods vs. services) ANOVA on the quality index. Results revealed no effect of identity ($F(1, 270) = .35, p = .58$), significant main effects of price ($F(1, 270) = 13.20, p < .01$), product type ($F(1, 270) = 21.06, p < .01$), product type \times price two-way interaction ($F(1, 270) = 4.83, p < .05$), and price \times identity two-way interaction ($F(1, 270) = 5.23, p < .05$), and no effect of product type \times identity two-way interaction ($F(1, 270) = .01, p = .94$). More important and consistent with **H₄**, there was a significant three-way interaction among identity, price, and product type ($F(1, 270) = 4.05, p < .05$).

For goods, a 2 (identity) \times 2 (price) ANOVA revealed no effect of identity or price (p 's $> .33$), but a significant identity \times price two-way interaction ($F(1, 270) = 9.13, p < .01$). Locals rated the target brands as superior in the high- (vs. low-) price condition ($M_{\text{Low Price}} = 4.45$ vs. $M_{\text{High Price}} = 4.94, t(71) = -2.93, p < .01$), whereas globals rated the target brands as equivalent in quality across price conditions ($M_{\text{Low Price}} = 4.78$ vs. $M_{\text{High Price}} = 4.52, t(66) = 1.51, p = .14$). These findings replicated those of Studies 1 and 2.

Test of Hypothesis 4. Next, we compared PPQ associations for services (vs. goods) among globals and locals separately. For globals, a 2 (product type) \times 2 (price) ANOVA revealed no effect of price ($F(1, 270) = .99, p = .32$), a significant main effect of product type ($F(1, 270) = 10.82, p < .01$), and a significant interaction between product type \times price ($F(1,270) = 8.87, p < .01$). Globals made PPQ associations when evaluating services ($M_{\text{Low Price}} = 4.80$ vs. $M_{\text{High Price}} = 5.31; t(61) = -2.66, p = .01$), but not goods ($M_{\text{Low Price}} = 4.52$ vs. $M_{\text{High Price}} = 4.78; t(66) = -1.51, p = .14$). For locals, a 2 (product type) \times 2 (price) ANOVA revealed significant effects of product type ($F(1, 270) = 11.34, p < .01$) and price ($F(1, 270) = 17.74, p < .01$). More important and consistent with **H4**, there was no effect of two-way product type \times price interaction ($F(1, 270) = .04, p = .85$). Locals made PPQ associations when evaluating both services ($M_{\text{Low Price}} = 4.84$ vs. $M_{\text{High Price}} = 5.39; t(70) = -2.98, p < .01$) and goods ($M_{\text{Low Price}} = 4.45$ vs. $M_{\text{High Price}} = 4.94; t(71) = -2.93, p < .01$). Hence, these results supported **H4**.

STUDY 5: CONVERGENT VERSUS DIVERGENT CUSTOMER REVIEWS

Participants, Design, and Procedure

Participants were 785 Mturk workers (278 men; $M_{\text{age}} = 39.33, SD = 13.13$) from the U.S. who were randomly assigned to a 2 (identity: local vs. global) \times 2 (price: high vs. low) \times 3 (customer rating distribution: convergent, divergent, control) between-subjects design. The procedure, manipulation of local-global identity, product stimuli, and measures were as in Study 2 except for two differences: (1) we used microwaves in this study, and (2) before making judgments on the target brand, participants saw a summary table of customer ratings, which we used to manipulate the distribution of customer ratings. In the divergent-rating condition, the customer reviews were almost equally distributed across the “poor”, “good”, and “excellent” categories, whereas in the convergent-rating condition, customer reviews concentrated on the “good” category (see Web Appendix 9 for stimuli). Although the distribution of customer ratings

differed, the average rating was the same across convergent and divergent conditions. In the control condition, there was no information about customer reviews.

After the ratings distribution prime, participants viewed information about three brands (i.e., the target brand and two other brands) of microwaves and then evaluated the quality, reliability, and dependability of the target brands, as in Studies 2 and 3 ($\alpha = .90$).

Participants were then asked to rate perceived differences between microwaves in the marketplace using the same perceived quality variance measure as in the previous study ($\alpha = .81$); this served as a manipulation check for the divergence of customer ratings. Participants in the divergent-rating condition ($M = 5.22$) perceived more quality variance than those in the control condition ($M = 4.97$, $t(526) = 2.22$, $p < .05$) and also than those in the convergent-rating condition ($M = 4.67$, $t(519) = 4.46$, $p < .01$). Participants in the convergent-rating condition ($M = 4.67$) perceived less quality variance than those in the control condition ($M = 4.97$, $t(519) = -2.41$, $p < .05$), suggesting that our manipulation was successful.

Results and Discussion

A 2 (identity) \times 2 (price) \times 3 (rating distribution) ANOVA on the quality index revealed no effect of identity or rating distribution (p 's $> .10$), a significant effect of price ($F(1, 773) = 51.55$, $p < .01$), no significant two-way interactions (p 's $> .21$), and, importantly, a significant three-way interaction among identity, price, and rating distribution ($F(1, 773) = 5.32$, $p < .01$). In the control condition, we expected to replicate the findings of Study 2. A 2 (identity) \times 2 (price) ANOVA revealed no effect of identity ($F(1, 773) = .12$, $p = .73$), a significant effect of price ($F(1, 773) = 16.75$, $p < .01$), and a significant identity \times price two-way interaction ($F(1, 773) = 10.90$, $p < .01$). Participants primed with local identity rated the target brand as having higher quality in the high (vs. low) price condition ($M_{\text{Low Price}} = 3.71$ vs. $M_{\text{High Price}} = 4.56$; $t(138) = -5.50$, $p < .01$). However, those primed with global identity rated the target brand

equivalently in the two price conditions ($M_{\text{Low Price}} = 4.10$ vs. $M_{\text{High Price}} = 4.19$; $t(122) = -.56$, $p = .58$).

Test of Hypothesis 5a. Next, we compared PPQ associations in the divergent (vs. control) conditions among locals and globals separately. For globals in the divergent and control conditions, a 2 (rating distribution) \times 2 (price) ANOVA revealed no effect of rating distribution ($F(1, 773) = 2.48$, $p = .12$), a significant effect of price ($F(1, 773) = 16.31$, $p < .01$), and a significant two-way interaction between ratings distribution \times price ($F(1, 773) = 10.70$, $p < .01$). Contrasts showed that globals made PPQ associations in the divergent condition ($M_{\text{Low Price}} = 3.53$ vs. $M_{\text{High Price}} = 4.39$; $t(122) = -5.44$, $p < .01$), but not in the control condition ($M_{\text{Low Price}} = 4.10$ vs. $M_{\text{High Price}} = 4.19$; $t(122) = -.56$, $p = .58$). For locals in the divergent and control conditions, a 2 (rating distribution) \times 2 (price) ANOVA revealed no effect of rating distribution ($F(1, 773) = 1.93$, $p = .17$), a significant effect of price ($F(1, 773) = 59.68$, $p < .01$), and no effect of rating distribution \times price two-way interaction ($F(1, 773) = .01$, $p = .92$), suggesting that providing divergent distribution of customer reviews did not change locals' tendency to make PPQ associations. Contrasts showed that locals made PPQ associations in both the divergent ($M_{\text{Low Price}} = 3.85$ vs. $M_{\text{High Price}} = 4.72$; $t(138) = -5.49$, $p < .01$) and control ($M_{\text{Low Price}} = 3.71$ vs. $M_{\text{High Price}} = 4.56$; $t(138) = -5.50$, $p < .01$) conditions, supporting **H5a**.

Test of Hypothesis 5b. Next, we compared the PPQ associations in the convergent (vs. control) conditions among locals and globals separately. For globals in the convergent and control conditions, a 2 (rating distribution) \times 2 (price) ANOVA revealed no effect of rating distribution, price, or the rating distribution \times price two-way interaction (p 's $> .19$), suggesting that providing convergent customer reviews did not change globals' tendency to make PPQ associations. As shown in Web Appendix 10, contrasts showed that globals did not make PPQ associations in the convergent ($M_{\text{Low Price}} = 3.90$ vs. $M_{\text{High Price}} = 4.12$; $t(126) = -1.25$, $p = .21$)

and control ($M_{\text{Low Price}} = 4.10$ vs. $M_{\text{High Price}} = 4.19$; $t(122) = -.56, p = .58$) conditions. For locals in the convergent and control conditions, a 2 (rating distribution) \times 2 (price) ANOVA revealed no effect of rating distribution ($F(1, 773) = 2.15, p = .14$), a significant effect of price ($F(1, 773) = 14.84, p < .01$), and a significant rating distribution \times price two-way interaction ($F(1, 773) = 13.10, p < .01$), suggesting that providing convergent customer reviews significantly influenced locals' tendency to make PPQ associations. As shown in Web Appendix 10, contrasts showed that locals did not make PPQ associations in the convergent condition ($M_{\text{Low Price}} = 4.29$ vs. $M_{\text{High Price}} = 4.31$; $t(127) = -.15, p = .88$), but did so in the control condition ($M_{\text{Low Price}} = 3.71$ vs. $M_{\text{High Price}} = 4.56$; $t(138) = -5.50, p < .01$). Taken together, these results supported **H5b**.

Using product type (Study 4) and distribution of customer ratings (Study 5) as natural boundary conditions, these studies provided additional evidence supporting our proposed “perceived quality variance” account for the effect of local-global identity on PPQ associations. We also conducted a study (Study 9 in Web Appendix 2) to examine hedonic (vs. utilitarian) product type as another natural moderator. Hedonic (vs. utilitarian) products by nature have greater perceived quality variance, as different consumers tend to evaluate hedonic products using divergent criteria, whereas the evaluation of utilitarian products is mainly based on well-defined criteria (Holbrook and Hirschman 1982). Our framework suggests that when evaluating hedonic (vs. utilitarian) products, globals' tendency to use PPQ associations will be elevated, whereas locals' tendency to use PPQ associations will be unaffected. Our results confirmed this expectation. These studies enhanced the external validity of our findings and showed direct evidence of the managerial implications of this research.

In the next study, we aim to reconcile the seemingly contradictory findings predicted by our theory and those of Yan and Sengupta (2011). These authors found that an abstract (vs. concrete) construal enhances PPQ associations. If globals (vs. locals) have a greater abstract

(instead of concrete) construal (as implied by Ng and Batra 2017), this account predicts that they would be more likely to make PPQ associations, which is opposite to our prediction.

We believe that the seemingly contradictory predictions are due to the conceptual distinction between local-global identity and construal level. Our theorization predicts that a local (vs. global) identity induces a dissimilarity-focus mindset, which in turn motivates the search for, and use of, diagnostic cues to make sense of the quality differences between brands. In contrast, construal level theory suggests that abstract (vs. concrete) information such as price tends to exert greater impact on representations and judgments when construal level is high (vs. low; Yan and Sengupta 2011).

Hence, although a local identity and low level construal both may lead to greater perceived differences among comparative objects (Lamberton and Diehl 2013), locals are driven by their innate dissimilarity-focus mindset, which motivates them to look for and use diagnostic cues to justify such differences. However, a low (vs. high) level construal reduces the tendency to use abstract cues such as price to judge product quality.

We tested the distinction between local-global identity and construal level in the context of product evaluations. In particular, we manipulated the diagnosticity of product attributes via trade-offs among product features. As an example, take three features of a digital camera: Megapixel, Optical Zoom, and price. When attributes do not contain trade-offs (e.g., “low in price but high in both Megapixel and Optical Zoom” versus “high in price but low in both Megapixel and Optical Zoom”), the decision scenario is quite similar to the stimuli of Yan and Sengupta (2011, Exp. 2), where the comparison was between a “low price high quality” option and a “high price low quality” option. In such a situation, perceived quality variance among comparative brands is made salient by the diagnosticity of product attributes. When construal level is experimentally made high, we expect to replicate Yan and Sengupta’s (2011) findings,

i.e., price would have more of an impact in the high- than in the low-construal condition. However, the prediction of local-global identity can have two possible directions, depending upon whether the construal-level account or our proposed quality variance account holds. The construal-level account predicts that price being an abstract cue will be used as a quality cue more by globals (vs. locals), because they are abstract (vs. concrete) thinkers. However, the quality-variance account suggests that the impact of price will not differ across locals and globals (as in **H_{3a}**).

Given that trade-offs reduce the diagnosticity of product features (Heath, McCarthy, and Mothersbaugh 1994), when attributes contain trade-offs (e.g., low price, high Megapixel, low Optical Zoom), perceived quality variance among the comparative brands is not made salient (similar to the “control condition without a cue to enhance perceived quality variance” in previous studies). In such a situation, if the quality-variance account holds, price should impact locals (vs. globals) more, as specified in **H₁**. If the construal level account holds, we predict price, being an abstract cue, to be more of an impact for globals (vs. locals), who are abstract (vs. concrete) thinkers. Also, according to Yan and Sengupta (2011), quality attributes are concrete product cues (i.e., low level construal), whereas price is an abstract cue (i.e., high level construal). Since the manipulation of diagnosticity is only on quality (but not on price) cues, we expect diagnosticity (high vs. low) to only moderate the effect of construal level on PPQ in the low construal level condition, but not in the high construal level condition. The next study tests these predictions and rules out decision-making effort as another alternative explanation.

STUDY 6: THE ROLE OF CONSTRUAL LEVEL

Participants, Design, and Procedure

The study employed a 4 (local identity, global identity, high-level construal, low-level construal) × 2 (diagnosticity of quality cues: high vs. low) between-subjects design. Four

hundred and seventy college students (239 men; $M_{\text{age}} = 26.60$, $SD = 10.88$) were randomly assigned to one of four conditions: local identity, global identity, high construal level, and low construal level. Local and global identity were manipulated as in Study 2. We also asked participants to rate the manipulation check items as in the previous study ($\alpha = .88$). Following Freitas, Gollwitzer, and Trope (2004), construal level was manipulated by asking participants to think and write about *why* they should improve their academic performance (high construal level) or *how* to improve their academic performance (low construal level). To check the manipulation, we assessed the Behavior Identification Form (BIF; Vallacher and Wegner 1998), which asks participants to choose between an abstract representation (e.g., making the room look fresh) and a concrete representation (e.g., applying brush strokes) of the same action (e.g., painting a room).

Participants were then given a description of two cameras and asked to determine which was of higher quality. The two cameras differed in price and two other nonprice cues (Megapixel and Optical Zoom). The diagnosticity of nonprice cues was manipulated through consistency in Megapixel and Optical Zoom (see Web Appendix 11). In the high diagnosticity condition, the two nonprice cues were in the same direction: the high-price (\$240) camera was low in both Megapixel (15MP) and Optical Zoom (10X) and the low-price (\$200) camera was high in both Megapixel (18MP) and Optical Zoom (12X). This design is consistent with Yan and Sengupta (2011; Exp. 2). Since one option had a higher price but lower quality than the other option, the quality variance between these two options was salient, as shown by Yan and Sengupta (2011; Exp. 2). In the low diagnosticity condition, the two nonprice cues were in the opposite direction: the high-price (\$240) camera was low in Megapixel (15MP) but high in Optical Zoom (12X) and the low-price (\$200) camera was high in Megapixel (18MP) but low in Optical Zoom (10X). In this condition, the quality variance between the two options is not salient, as trade-offs reduce

the diagnosticity of the nonprice cues (Heath et al. 1994). We used a pilot study ($N = 78$) to validate the manipulation of diagnosticity. Participants were randomly assigned to either high or low diagnosticity condition, and rated perceived quality variance using two items ($\alpha = .85$): (1) *The quality of cameras in the marketplace varies a lot*, and (2) *There are huge differences among cameras*. Results showed that participants in the high (vs. low) diagnosticity condition perceived more variance in quality of cameras ($M_{\text{High}} = 5.61$ vs. $M_{\text{Low}} = 4.99$, $t(76) = 2.31$, $p < .05$).

Participants also completed a 2-item measure of task involvement: (1) *How involved were you when judging the two cameras*, and (2) *How much thought did you put into the task of evaluating the two cameras* (1 = *Not at all* and 7 = *Very much so*; $\alpha = .85$). We also recorded the actual time that participants spent making the choice as another measure of effort.

Results and Discussion

Manipulation Check. As expected, participants in the local (vs. global) identity condition were more likely to perceive themselves as local citizens ($M_{\text{Local}} = 4.64$ vs. $M_{\text{Global}} = 4.12$, $t(231) = 2.25$, $p < .05$). However, participants in the high and low-construal level conditions did not differ in this aspect ($M_{\text{High Construal}} = 4.30$ vs. $M_{\text{Low Construal}} = 4.40$, $t(235) = -.41$, $p = .68$). Those in the high-construal condition ($M = 18.14$) scored higher than those in the low-construal condition ($M = 15.57$, $t(235) = 3.66$, $p < .01$) on the composite BIF scale, indicating that construal level was manipulated successfully. Interestingly, consistent with Ng and Batra (2017), participants in the global identity condition ($M = 16.26$) scored higher in BIF than those in the local identity condition ($M = 14.03$, $t(231) = 3.09$, $p < .01$), suggesting that local-global identity prime indeed affects construal level. However, as shown below, these two variables differentially influenced PPQ associations across high and low diagnosticity conditions.

Choice of the Higher Quality Camera. In the low diagnosticity condition, consistent with our prediction that price would have more of an impact in the local identity condition than in the

global identity condition, the proportion of participants who selected the high-price camera as superior was higher in the local (31.67%) versus the global identity condition (10.91%; $\chi^2(1) = 7.27, p < .01$). However, the proportion of participants who selected the high-price camera as superior did not differ across the high- (28.33 %) and the low-level construal conditions (18.33%; $\chi^2(1) = 1.68, p = .20$).

In the high diagnosticity condition, the proportion of participants who selected the high-price camera as having better quality was higher ($\chi^2(1) = 7.44, p < .01$) in the high-level construal condition (22.41%) than in the low-level construal condition (5.08%); this is consistent with Yan and Sengupta's (2011) finding that price would have more of an impact in the high-level construal condition than in the low-level construal condition. However, the proportion of participants who selected the high-price camera as superior did not differ between the local identity condition (29.63%) and the global identity condition (26.56%; $\chi^2(1) = .14, p = .84$).

Further, to test our prediction that when the diagnosticity is high (vs. low), globals will perceive the high-price item to be of better quality (i.e., elevated PPQ associations), whereas locals' quality perceptions will be unaffected (**H_{3a}**), we compared the choice of the high-price option in the high (vs. low) diagnosticity condition among locals and globals separately. The proportion of globals who selected the high-price camera as being of better quality was higher ($\chi^2(1) = 4.65, p < .05$) in the high (26.56%) than in the low (10.91%) diagnosticity condition. However, the proportion of locals who selected the high-price camera as being of better quality did not differ ($\chi^2(1) = .06, p = .84$) between the high (29.63%) and low (31.67%) diagnosticity conditions (See Web Appendix 12).

To test our expectation that diagnosticity (high vs. low) will moderate the effect of construal level on PPQ only in the low construal level condition, but not in the high construal level condition, we conducted additional analysis across construal level. Consistent with our

expectations, in the *high-level construal* condition, the proportion of participants who selected the high-price cameras as having better quality did not differ across the low (28.33%) and high diagnosticity conditions (22.40%; $\chi^2(1) = .55, p = .46$), indicating that they were not affected by diagnosticity; however, in the *low-level construal* condition, the proportion of participants was higher in the low (18.33%) than in the high diagnosticity condition (5.08%; $\chi^2(1) = 5.03, p = .03$), suggesting that they were significantly influenced by diagnosticity of nonprice cues.

Ruling out Decision-Making Effort as an Alternative Explanation. We used two measures to detect the effort participants put into the decision task: (1) a self-reported task involvement measure, and (2) processing time (in seconds). Results showed that neither task involvement ($M_{\text{Local}} = 5.29$ vs. $M_{\text{Global}} = 5.49$; $t(231) = -1.02, p = .31$) nor processing time ($M_{\text{Local}} = 40.62$ vs. $M_{\text{Global}} = 36.12$; $t(231) = .39, p = .70$) was differed significantly across the identity conditions. Therefore, decision-making effort cannot explain our findings.

This study provided direct evidence on the difference between local-global identity and construal level, and reconciled the seemingly contradictory findings. Also, it ruled out effort into decision task as another alternative explanation for our findings. Next, we report a field experiment with real behavioral measures to test the external validity of the findings.

STUDY 7: FIELD STUDY WITH ACTUAL MONETARY EXPENDITURES

The purpose of this study was to investigate a behavioral consequence of local-global identity and PPQ associations in a real choice task involving monetary expenditures. Cronley et al. (2005) found that consumers who make stronger PPQ associations spend more money on purchases to acquire higher-quality products. In the context of choosing a water bottle from four options at different prices, we expect that locals (vs. globals) are more likely to purchase expensive water bottles, and this effect is mediated by PPQ associations.

Participants, Design, and Procedure

Eighty-one American consumers (33 men; $M_{\text{age}} = 23.65$, $SD = 6.76$) shopping at a local bookstore were recruited with an offer of \$20 in total compensation, which could include a water bottle of their choice with the remaining amount in cash. As in Study 1, participants were given a brochure that either described a “Think Local Movement” or a “Think Global Movement,” which was used to manipulate local and global identity, respectively (Web Appendix 13).

Afterwards, participants were instructed that the study would involve consumers’ evaluation of water bottles, and were reminded of the compensation scheme. They were also told that if they so chose, they could receive \$20 in cash and no water bottle (two consumers chose this option, one from the local identity condition and one from the global identity condition).² Thereafter, participants were asked to evaluate four different water bottles actually sold in the bookstore (priced at \$4.99, \$9.99, \$14.99, \$19.99), and were administered the 4-item PPQ associations scale from Lichtenstein et al. (1993) (adapted to assess state, rather than chronic, PPQ associations for water bottles; sample item: “*At this moment, I believe that the higher the price of a water bottle, the higher the quality*”; $\alpha = .89$).

Thereafter, participants were asked to choose one of the four water bottles and were paid the remaining amount of \$20 in cash. Finally, participants rated the 3-item local-global identity manipulation check questions ($\alpha = .92$) as in Study 1, reported their age and gender, and were then thanked and dismissed.

Results

Participants assigned to the local (vs. global) identity condition perceived themselves more as local citizens ($M_{\text{Local}} = 4.62$ vs. $M_{\text{Global}} = 3.44$, $t(77) = 3.30$, $p < .01$). Further, as

² To be consistent with Cronley et al. (2005), we excluded these two consumers from analysis and only reported the results with a sample of 79. However, including these two consumers into the analysis did not change the pattern of results or their significance level.

predicted, participants assigned to the local (vs. global) identity condition spent more on the water bottle ($M_{\text{Local}} = \$14.52$ vs. $M_{\text{Global}} = \$9.43$; $t(77) = 4.44$, $p < .001$) and had significantly higher PPQ associations ($M_{\text{Local}} = 5.12$ vs. $M_{\text{Global}} = 4.34$; $t(77) = 2.28$, $p < .05$).

These findings have significant implications for consumer choice. Participants primed with local (vs. global) movements perceived a much stronger relation between the price of a water bottle and its quality; this, in turn, influenced their choice and spending behavior. Indeed, participants with a situationally activated local (vs. global) identity spent 53.98% more. Although PPQ is not a theorized mediator (which is perceived quality variance), we ran a mediation test to provide evince that the amount spent is driven by PPQ, and not by other variables. A bootstrapping procedure with 10,000 iterations using Model 4 of PROCESS showed that the indirect effect of local-global identity on amount of money spent via PPQ associations was positive (.79) and significant (95% CI, .12–1.99 excluded zero), suggesting that individuals with an accessible local (vs. global) identity were willing to spend more money on purchases because of higher PPQ associations.

Follow-up Study: A Systematic Review of Previous Studies

To enhance the generalizability of our findings, we performed a systematic review on PPQ associations documented in previous studies. Given that these studies were conducted in different countries, we used country-level local-global identity as an explanatory factor for PPQ associations. Following Gao, Zhang, and Mittal (2017), we used the KOF Index of Globalization (<http://globalization.kof.ethz.ch/>) to capture country-level local-global identity, with a higher score reflecting a greater degree of global identity (and a lower degree of local identity). We also included each country's GDP per capita, competitive environment,³ and Hofstede's (2001) five

³ The GDP per capita data came from the World Factbook, whereas competitive environment scores were obtained from the World Economic Forum's Global Competitiveness Report.

cultural dimensions (individualism-collectivism, power distance, uncertainty avoidance, masculinity, and long-term orientation) as covariates in the analysis.

The mean standardized r across the studies in our database was .208 (95% $CI_{BS} = .199$ to .218, $p < .001$), suggesting that, in general, consumers use price to infer brand quality. However, there was substantial heterogeneity in PPQ associations ($\chi^2 = 2,681.54$, $p < .001$). Hence, we conducted moderation analysis via a meta-regression using the CMA 3.0 software, with standardized r as the common effect size metric, country-level Globalization Index as the independent variable, and other country-level variables (i.e., GDP per capita, competitive environment, and Hofstede's five cultural dimensions) and study-level factors (price range, product durability, study type, and publication type) as covariates. Results showed a negative relationship between the Globalization Index and PPQ associations ($\beta = -.02$, $Z = -3.07$, $p < .01$). Among the country-level variables, competitive environment was positively related to PPQ associations ($\beta = .08$, $Z = 10.41$, $p < .001$), whereas GDP per capita had a negative effect ($\beta = -.05$, $Z = -4.99$, $p < .001$). Of the five cultural dimensions, only uncertainty avoidance ($\beta = -.04$, $Z = -5.73$, $p < .001$) was significantly associated with PPQ associations. Of the study-level factors, there were significant effects of product durability ($\beta = -.09$, $Z = -7.11$, $p < .001$), study type ($\beta = -.10$, $Z = -7.02$, $p < .001$), and publication type ($\beta = .06$, $Z = 4.71$, $p < .001$), but no significant effect of price range ($p = .14$).

GENERAL DISCUSSION

As shown in Appendix A, all studies provide converging and robust evidence for the role played by local-global identity in PPQ associations, using a variety of measures and manipulations of the key variables. In a shopping mall with real consumers, Study 1 showed that

locals have a greater tendency than globals to make PPQ associations. Study 2 shed light on the mediating role of perceived quality variance among comparative brands. Study 3 revealed that when the quality difference among brands is made salient, globals' (but not locals') tendency to make PPQ associations is elevated, whereas when the quality difference among brands is reduced, locals' tendency to make PPQ associations is lowered, whereas globals' tendency to use PPQ associations is unaffected. The next two studies examined the moderating roles of product type (services vs. goods; Study 4) and online reviews (convergent vs. divergent; Study 5). Study 6 reconciled the seemingly contradictory predictions between our theory and those of Construal Level Theory. Study 7 reported a field experiment with real behavioral measures to prove the external validity of our findings. Study 8 (Web Appendix 1) showed that the effect of local-global identity on PPQ associations is held in both multi-quality-cue and single-quality-cue conditions. Study 9 (Web Appendix 2) revealed that hedonic (vs. utilitarian) product type represents another natural moderator of the relation between local-global identity and PPQ associations. Finally, secondary evidence (Follow-up Study of Study 7) further showed how local-global identity may affect PPQ associations at the national level, lending additional support for external validity.

Theoretical Contributions

Our findings offer contributions to the price-quality judgments and local-global identity literatures. Previous cross-cultural research has mainly focused on the dimensions of individualism-collectivism (Lalwani and Shavitt 2009; 2013; Shavitt et al. 2006) and power distance (Lalwani and Forcum 2016; Han, Lalwani, and Duhachek 2017). Although the world has been moving toward globalization in recent years, we know little about how this trend may affect consumers' use of price as a signal of quality. From the limited evidence in cross-country studies (Dawar and Parker 1994; Völckner and Hofmann 2007; Zielke and Komor 2015), it is

unclear whether the effect of local-global identity on price-quality judgments even exists. Our research is the first to demonstrate the existence of this effect.

Our research contributes to the local-global identity literature by identifying perceived variance among comparative objects as a new qualitative difference between these two identities. This important discovery can advance our understanding about why locals are faithful to local traditions: local identity heightens perceived differences, driving locals to focus on the uniqueness of their traditions and overlook the common elements between their traditions and those of other communities. This discovery likely has implications beyond PPQ associations, such as on categorization and brand extensions.

Our research also contributes to the price-quality judgments literature by identifying a novel mechanism that drives consumers to use price to judge quality—that of perceived quality variance. Because of this mechanism, situational factors that make quality variance salient or reduced—such as product type or distribution of customer ratings—can change consumers' tendency to make price-quality judgments. By showing that the relationship between local-global identity and PPQ associations is driven by the salience of quality variance, we also uncover boundary conditions for our effects.

Managerial Relevance

To ascertain the managerial relevance of our research, we conducted in-depth interviews with 15 senior level managers from Fortune 500 corporations in different industries, such as apparel, smartphones, baby and beauty products, wine and spirits, pet supplies, beverages, food, and personal care products. Three informants were female; the average age was 44, ranging from 30 to 53 years, with an average job tenure of approximately 3.7 years. We used a “theoretical” sampling procedure similar to Tuli, Kohli, and Bharadwaj (2007), locating and contacting executives through LinkedIn based on two criteria: (1) the manager was a key decision-maker on

product pricing across markets and/or countries, and (2) the product was sold in multiple countries. Each interview lasted for approximately 45 minutes. Respondents were asked to talk about their general experiences with pricing decisions, their knowledge of consumers' reactions to prices in different countries, and their understanding of how local and global identities may be useful in pricing decisions.

With respect to price-quality associations, managers across industries mentioned that they recognized the importance of PPQ associations. Two informants said:

“Price is used to judge quality ...for sure...in dog sweaters, it is difficult to judge quality, so I’m sure that my pet parents use price, in addition to other factors, to choose between options.” [Sam, 46 years, Communication and Promotions Manager]

“In the sneaker market usually higher price (e.g., \$200 as compared to \$100) means a more premium technology or a better feature is offered...customers sometimes cannot differentiate between technologies from different companies and so price is often a signal of how much more premium the technology is.” [Mark, 44 years, Innovation and Marketing Director]

Informants also mentioned about cross-country differences in PPQ associations, but were puzzled by why price-quality associations differed by country. One informant stated:

“We sell the world’s leading premium soap brand across the world. I believe that in India rather than in the US, price for our soap bars is more likely to be used as a signal of quality. I have no idea why, but that is my strong intuition.” [Rahul, 45 years, Global Brand Director]

Several informants emphasized the consideration of local or global communities in their pricing decisions. This notion is illustrated by the opening quote and the following vignette:

“If you consider our PCs, we are one of the largest software and hardware manufacturers in the world, and I manage all the retail stores across the world for our devices. What I have seen is that the global shopper (well-travelled and exposed to all brands and products) is very different from the non-global shopper. The global shopper I believe is less likely to use price as the determinant of product purchase, they want us to back it with product features.” [Pat, 46 years, Senior Director - Insights]

Taken together, the qualitative study suggests that managers actively consider the likelihood that consumers would use PPQ associations in their product evaluations, and use such

information into their marketing strategies. They are also aware of the role that local or global communities play in pricing decisions. However, none of the informants had a clear idea of when such strategies might be effective and why, as illustrated in the opening quote.

Managerial Implications

This research also offers several managerial implications. Our findings indicate that when promoting high-price products, marketers can situationally activate consumers' local identity, because consumers are more likely to use price to judge a product's quality when their local identity is salient. Communication appeals or contextual cues, such as "Think Local" movement used in Studies 1 and 7 or the T-shirt used in the follow-up study to Study 1, can be used to achieve this goal. Advertisements or messages that feature local cultural symbols may enhance the accessibility of the local identity. TV channels that feature local traditions can be effective as well. Conversely, when promoting low-price products, marketers may want to activate consumers' global identity to reduce PPQ associations. Contextual cues (e.g., the "Think Global" movement used in Studies 1 and 7, and ads that feature multi-cultural symbols and globalization) may enhance the accessibility of global identity.

Another approach to increase consumers' PPQ associations is to alter consumers' perception of dissimilarity among brands to match with a pricing strategy. For products that charge a premium price over competing products, marketers can use situational cues (e.g., expert opinion, as in Study 3; distribution of customer ratings, as in Study 5) to increase perceived quality variance and facilitate consumers' associations between price and product quality. In contrast, for products that take a low-price strategy, marketers can use these situational cues to reduce, rather than increase, perceived quality variance.

Our findings on the influence of product type (service vs. goods, hedonic vs. utilitarian products) on customers' perceived quality variance shed insight into the PPQ associations among

services, hedonic products, and new products. Marketers of these products can capitalize on our findings by wisely allocating their advertising budget: there is no need for them to build up price-quality associations in the minds of target consumers, because these products naturally induce perceived quality variance, which in turn leads to enhanced PPQ associations. In addition, previous research argues that consumers have more diversified views on innovations than on existing products, especially the radically new innovation with first-of-its-kind, ground-breaking technologies (Ma, Yang, and Mourali 2014). Our theory suggests that consumers are prone to make PPQ associations when adopting these products.

Our research is the first to show the important role that distribution of customer ratings (divergent vs. convergent) plays in influencing consumers' PPQ associations. When people post similar ratings for products in a category, potential buyers may have an impression that products in that category are of similar quality (i.e., low quality variance). In contrast, when people's opinions are all over the place and there is lack of a dominant view, potential buyers tend to perceive high quality variance among the products in that category. Armed with this information, marketers using skimming pricing should welcome, rather than suppress, different opinions from previous users, as divergent online reviews can actually enhance consumers' PPQ associations. However, firms with penetration pricing may need to strive for consumers' convergent opinions, as similar customer ratings can reduce consumers' tendency to view the product's low price as an indicator of its low quality.

Our findings also provide useful guidelines for firms to adapt their strategies to different regions. For products to be marketed to the places where people are more likely to have a salient local identity (e.g., rural areas), local flavors and local ingredients can be used in the products, as indicated in the opening quote of the paper. Also, as these consumers are more likely to make PPQ associations, marketers may not need to allocate much ad budgets to convince consumers

about price-quality associations. However, when marketers enter places in which people are high in global identity (e.g., metropolitan areas), they should know that consumers in these places do not have an established mental connection between price and quality.⁴ Thus, additional effort is needed to enhance consumers' perceived dissimilarity among brands in the marketplace to enhance price-quality associations. Similar strategies can be used for international marketing strategies. Previous research (Arnett 2002; Gao, Zhang, and Mittal 2017) has shown that individuals in globalized countries are more likely to have a stronger global identity, whereas those from more localized countries tend to have a stronger local identity.

Limitations and Future Research

Although the follow-up study of Study 7 provided generalizable evidence, the treatment of local and global identities violated the conceptualization that these two identities are orthogonal constructs. Although treating the country-level Globalization Index as a proxy of individuals' local-global identity is in line with previous research (Gao, Zhang, and Mittal 2017), this approach may create confusion. Second, this study may suffer from alternative explanations, such as product lifecycle. Although this concern is alleviated by the variety of product stimuli used across studies, we need to be cautious of the conclusions of that study. Third, another alternative explanation of some of our findings is that locals (vs. globals) had a greater sacrifice mindset. Although this account cannot explain our moderation studies, future research should examine if this explanation and others can account for the relationship between local-global identity and PPQ in domains not examined in the current manuscript. Finally, in this research we focused only on price-perceived quality. Given that price-quality judgments can also be quality-perceived-price, it may be fruitful for future researchers to apply our theory to examine how

⁴ We thank an anonymous reviewer for this implication.

quality levels affect consumers' price expectations. For example, future research may provide consumers with quality levels, instead of prices, and ascertain their expected prices.

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Chapter 2: Local versus Global: The Effect of Identity Salience on Creativity

INTRODUCTION

There has been a paradigm shift in marketing where companies now extensively use consumers in their innovative processes (Hippel, Jong and Flowers 2012) and various strategies to enhance quality of creative inputs from consumers. For example, Threadless, which sells T-shirts and apparel featuring unique designs by independent artists, seeks input from its consumers by offering incentives and setting up competitions for submitting creative designs. Interestingly, Threadless also taps into various personality aspects of the consumers and their associations with an objective of enhancing creativity of the inputs. A recent campaign asked consumers to focus on their local identity for the new ideas to show off their local city through photography, whereas another campaign asked consumer to think more about being a global citizen, creating a design celebrating the art of foreign phrases.

While prior research has examined various factors such as incentives (Amabile 1982; Burroughs et al. 2011; Mehta, Dahl and Zhu 2017), surrounding environment (Mehta and Zhu 2009; Mehta, Zhu and Chemma 2012; Steidle and Werth 2013), cultural variables (Bechtoldt, Choi and Nijstad 2012; Chua, Roth and Lemoine 2015; Maddux and Galinsky 2009) for their impact on consumer creativity, extant literature has largely ignored the likely role that consumers' identity salience may play in impacting creativity.

Hence, with an aim to extend this line of thought we examine whether local versus global identity salience may impact consumers' creative output. We argue that making individuals' local (versus global) identity salient will enhance their relationship focus thereby inducing a relational mindset, and in turn enhancing their creativity. Indeed, it has been argued that individuals whose local, as compared to those whose global, identity is salient are more faithful

and respectful of local traditions, and have stronger valuation of the relationships within their local community (Arnett 2002; Zhang and Khare 2009). Further, we argue that such focus on relationships makes individuals to notice, encode, and process relationship information more fluently; thereby inducing a cognitive process that helps them recognize and generate relationships between loosely connected ideas and concepts, which in fact is bedrock of creativity (Mednick 1962).

We address the issues in this paper with significant implications for the cross-cultural and creativity literatures. First, we are the first to uncover relationship focus as a new consequence of local and global identity. With this fresh perspective, we contribute to the cross-cultural literature (Gao, Zhang, and Mittal 2017; Ng and Batra 2017). Second, we also make the contribution to the creativity literature by examining how the local-global identity influences creativity.

HYPOTHESIS DEVELOPMENT

Local identity and global identity reflects how strongly individuals associate with the local and the global community, respectively (Reed et al. 2012). Individuals whose local identity is salient ('locals') are faithful and respectful of local traditions, interested in local events, and identify with people in their local community, whereas those with a salient global identity ('globals') favor globalization, view the world as a "global village," and blur the lines of distinction between both people and products (Arnett 2002; Zhang and Khare 2009). Local-global identity has been associated with the choice between local vs. global brands (Zhang and Khare 2009), construal level (Ng and Batra 2017), and price sensitivity (Gao, Zhang, and Mittal 2017). The influence of local-global identity on creativity is unexplored. Although there are several possible reasons why locals (vs. globals) are higher in creativity, we focus on the relationship focus as discussed below.

However, litter research has examined the effect of local-global identity on consumers'

performance of creativity. At the national level, there is evidence that countries with different levels of local-global identity differ on the performance. For example, after considering the economic status, Chandrasekaran and Tellis (2008) stated that Japan (whose individuals are high in local identity) takes off new product faster than many Western countries (whose individuals are high in global identity).

Local-Global Identity, Relationship Focus, and Creativity

Our focal hypothesis is that relationship focus mediates the relationship between local-global identity and creativity. To the best of our knowledge, no previous research has examined this relationship before. However, we proposed the following reasons:

Individuals with a local identity are more accessible to relationship focus, and in turn increase their creativity. Kray, Galinsky, and Wong (2006) showed a positive relationship between relationship focus and creativity. In particular, they found that individuals' tendency to consider relationships and associations of a set of stimuli (i.e., the perceived relationship focus) leads to a larger degree of structured imagination, which is a characteristic of creativity. Hence, we hypothesize:

H₁: Individuals with a local identity have a greater performance on creativity compared to individuals with a global identity.

H₂: The effect of local (vs. global) identity on creativity is mediated by relationship focus.

Boundary Conditions

To further understanding of the underlying role of relationship focus, we also examined potential boundary conditions when the influence of local-global identity on creativity may be stronger or weaker. We have argued that locals (vs. globals) are high in the relationship focus, which in turns increases their performance on the creativity. We therefore propose that, when the relationship focus is made salient through a contextual cue (compared to a control condition in

which it is unchanged), globals are low in the relationship focus and have greater potential to increase. Therefore, globals are more likely to focus the relationship and thus have a better performance in the creativity. On the other hand, the same contextual cue is less likely to increase locals' creativity since their relationship focus is already high ("ceiling effect"). Thus, when the relationship focus is enhanced, locals and globals should be no differences on their creative performance.

In a similar situation. When the relationship focus is reduced, we expect that locals have a greater tendency to decrease the relationship focus. They will become no longer to focus the relationship, and therefore have a lower creative performance, compared to a control condition in which the relationship focus is unchanged. On the other hand, globals' baseline tendency to focus on the relationship is low and will be difficult for them to decrease further ("floor effect"). Therefore, globals' creativity should be unchanged when the relationship focus is reduced, relative to the control condition. We hypothesize:

H_{3a}: When the relationship focus is made salient (compared to a control condition in which relationship focus is not made salient), creativity among global would be increased, whereas locals' creativity would not be unaffected.

H_{3b}: When the relationship focus is reduced (compared to a control condition in which relationship focus is not made salient), creativity among locals would be decreased, whereas globals' creativity would be unaffected.

OVERVIEW OF STUDIES

We tested these hypotheses through analysis of one secondary data and four lab studies and used a multimethod approach to enhance the reliability and generalizability of our findings. Study 1 provided initial particle evidence on the link between local-global identity and creativity using a secondary panel data. Study 2A and 2B replicated Study 1's findings in different contexts

and ruled out time spent, thing style, and construal level as alternative explanations. Study 3 demonstrated the relationship focus was the key mechanism underlying the relationship between local-global identity and creativity, and also ruled out task involvement as alternative explanations. Further, the mood did not affect our manipulation. Study 4 examined the contextual moderator, salience of relationship focus (increased, reduced, and unchanged). Specifically, study 4 revealed that enhanced salience of relationship focus increased globals' (but not locals') level of creativity, whereas reduced salience of relationship focus decreased locals' (but not globals') level of creativity. Study 5 used a field study to replicate the study 1's finding.

STUDY 1: EVIDENCE FROM THREADLESS PANEL DATA

To demonstrate the direct evidence of association between the local-global identity and creativity, we assessed and compared publicly available data for two different campaigns run by Threadless.com. We collected the dataset ($N = 383$) from threadless.com, which sells T-shirts and apparel featuring unique designs by the independent artists. The first campaign we chose made consumers local identity salient by asking them to show off their local city in their designs. Specifically, the theme was, "Rep Your City", stating that "*Your challenge is to create a T-shirt design representing everything you love about your city through photography*" ($N=207$). The other campaign promoted global identity through the theme, "Foreign Phrases", instructing that "*Create bold text-based designs that celebrate the art of foreign linguistics*" ($N=151$). Note, each unique design is voted on by everyday consumers for creativity of the designs and whether it should be printed on a 5-point scale. This real-life score served as our focal dependent variable for this secondary data analysis. For the artists who submitted multiple designs, we only keep the one which has highest score.

Further, we recruited 50 MTurk workers (20 men; $M_{\text{age}} = 34.74$, $SD = 12.86$) from the U.S. to verify the assumption that the theme of "Rep Your City" are more accessible to local

identity (not global identity) compared to the theme of “Foreign Phrases”. Participants were randomly assigned into one of two conditions and read the instructions. Following Zhang and Khare (2009), the validity of the identity manipulation was assessed via a 3-item, 7-point scale anchored by 1 = *Global Citizen* and 7 = *Local Citizen*. The items included: (1) “*For the time being, I mainly identify myself as a...*”, (2) “*At this moment, I feel I am a...*”, and (3) “*On top of my mind right now are thoughts of being a...*” ($\alpha = .89$). Results indicated that participants assigned to the “Rep your city” (vs. “Foreign Phrases”) condition perceived themselves more as a local citizen ($M_{\text{Local}} = 5.64$ vs. $M_{\text{Global}} = 4.92$, $t(48) = 2.52$, $p < .02$).

Results

One-way ANOVA showed a significant main effect of local-global identity on the average score ($F(1, 357) = 4.30$, $p < .05$), such that designs generated by respondents in the local identity condition ($M = 2.62$) were rated higher than those in the global identity condition ($M = 2.53$, $t(357) = 2.07$, $p < .05$), supporting **H₁** that individuals with a local identity have a greater performance on creativity compared to individuals with a global identity.

Discussion

Study 1 illustrated the direct evidence from local-global identity to creativity. Specifically, t-shirts designed in the local identity campaign were rated higher compared to t-shirts designed in the global identity campaign. Thus, consumers are more willing to print and purchase the designs in the local identity campaign (vs. in the global identity campaign). For the next step, we used the following two lab studies to further support the hypothesis.

STUDY 2A: LOCAL IDENTITY ENHANCES CREATIVITY IN REMOTE ASSOCIATION TEST

The study tests the thesis that the situationally activated local identity enhances the creativity. We operationalized the creativity in a remote association test. Also, the study has the

purpose to rule out the time spent as an alternative explanation.

Participants, Design, and Procedure

Two hundred and four Mturk workers (130 females; 47.5% at 18-34 years old) participated in exchanged for a small payment. Following Zhang and Khare (2009), the local identity and the global identity were manipulated using a sentences unscrambling task. Participants who assigned to the local identity condition were instructed to construct fifteen grammatically correct sentences using such scrambled sentences as “*Events know I local*” and “*The community local I belong to*”. Those in the global identity condition were asked to finish the same task using different sentences, such as “*Events know I global*” and “*The world whole I belong to*”.

The creative performance was assessed by Remote Association Test (RAT; Mednick 1962). Each RAT item consists of three or four stimulus words that are in some way related to a fourth or fifth unreported target word. Participants are given the stimulus words, and their task is to identify the target word. For example, for the stimulus words “Blank,” “White,” and “Lines,” the correct response is “Page.” We included ten RAT items in this experiment, presented one at a time on a computer screen. Following Mehta, Zhu and Cheema (2012), the program recorded each participants’ responses and his or her response time for each RAT item.

Results

As anticipated, an analysis of variance (ANOVA) showed a significant main effect of local-global identity on RAT performance ($F(1, 202) = 4.30, p < .05$), such that respondents in the local identity condition generate more correct answers than those in the global identity condition ($M_{\text{local}} = 5.77$ vs $M_{\text{global}} = 5.21, t(202) = 2.07, p < .05$).

Time spent on Remote Association Test. To test whether our local-global identity manipulation changed participants’ time spent, we analyzed the average time taken by

participants to identify the target word. One-way ANOVA showed no significant treatment effect of local-global identity on the time spent ($F(1, 202) = .85, p = .36$). The difference between participants in the local identity and those in the global identity was not significant ($M_{\text{local}} = 18.20$ seconds vs $M_{\text{global}} = 25.79$ seconds, $t(202) = -.92, p = .36$).

STUDY 2B: LOCAL IDENTITY ENHANCES CREATIVITY IN THE SHOE-SHINE PROBLEM-SOLVING TASK

The study aims to provide theoretical replication of the results of study 2A. In addition, it is intended to test whether holistic thinking underlies the effect of local-global identity on creativity.

Participants, Design, and Procedure

One hundred and twenty-eight Mturk workers (82 females; 54.7% at 18-34 years old) participated in exchange for a small payment. The local identity and global identity were manipulated as study 2A. We used the shoe-polish problem-solving task from Burroughs and Mick (2004). Participants were asked to imagine the following scenario:

Just suppose that you are going out to dinner one evening. You have just moved into the area to take a new job. It is the annual company banquet held by your new employer and you are probably going to be called up front and introduced to the rest of the company by your new boss. You put on a black outfit and think you are all ready for the dinner when, as you go to put on your shoes, you discover they are all scuffed up and the scuffs are definitely noticeable. You go to the utility closet only to discover that you are almost completely out of shoe polish. This is the only pair of shoes you have to go with this outfit and there is really no other outfit you can wear. You have 2 minutes before you must head to the dinner if you are to be on time. Since you live in a residential area, all of the stores in your part of town have already closed for the evening. You know of one shopping mall that is open but it means an extra 5 miles of freeway driving.

After reading the scenario, participants were told to generate one solution as they could think of the given problem. We recorded both the ideas generated by each participants and the amount of time spent by him/her on this task. To further examine whether holistic thinking mediates the effect of local-global identity on creativity, we measured individuals' holistic thinking (e.g., "*Everything in the universe is somehow related to each other*"; $\alpha = .64$) using the 8-item scale developed by Choi (2007). All items were anchored by 1 = *Strongly Disagree* and 7 = *Strongly Agree*. Also, we also measured the construal level in order to test whether this variable can explain our results. The shorten version of Behavioral Identification Form (BIF) with 8 items was used to measure individuals' situational construal level. The BIF presents individuals with multiple behaviors and offers two different ways of identifying each behavior; for example, "writing a paper" could be identified as "expressing thoughts" (an abstract, high-level identification) or as "pushing keys on the keyboard" (a concrete, low-level identification). Individuals must select which of the two identifications best describes the behavior for them at the current moment. Participants' responses to all 8 behaviors are summed to create a construal-level index ($\alpha = .66$); higher values indicate a higher construal level.

Results

Creativity of the Ideas Generated. To assess the creativity of ideas generated, we hired 7 judges from the same populations as our study participants. These 7 judges rated the originality, novelty, innovativeness, appropriateness, usefulness, and practicality of each of the 128 ideas on a 7-point scale (1 = *not at all*, 7 = *very much*). We than averaged the 7 judges' ratings to obtain the mean judges' originality score ($\alpha = .89$), mean judges' novelty score ($\alpha = .88$), mean judges' innovativeness score ($\alpha = .87$), mean judges' appropriateness score ($\alpha = .79$), mean judges' usefulness score ($\alpha = .80$) and mean judges' practicality score ($\alpha = .76$) for each idea. The

originality, novelty, innovativeness, appropriateness, usefulness, and practicality scores were then averaged to create an overall creativity index ($\alpha = .97$).

One-way ANOVA revealed a significant main effect of local-global identity on this creativity index ($F(1, 126) = 4.56, p < .05$), such that ideas generated by respondents in the local identity condition ($M_{local} = 4.16$) were rated more as more creative than those in the global identity condition ($M_{global} = 3.74, t(126) = 2.14, p < .05$).

Time Spent on Shoe-shine Problem-Solving Task. To test whether our local-global identity manipulation changed participants' time spent, we analyzed the average time taken by participants to finish the shoe-shine problem-solving task. One-way ANOVA showed no significant treatment effect of local-global identity on the time spent ($F(1, 126) = .14, p = .71$). The difference between participants in the local identity and those in the global identity was not significant ($M_{local} = 132.64$ seconds vs $M_{global} = 128.21$ seconds, $t(126) = .37, p = .71$).

Holistic Thinking as an Alternative Explanation. We investigated whether the holistic thinking was a mediator of the relationship between local-global identity and creativity. A bootstrapping procedure with 10,000 iterations showed that the indirect effect of the local-global identity index on creativity through thinking style was negative (-.02) but not significant (95% CI, -.12-.02 included zero). The result indicated that the holistic thinking was unlikely to be an alternative explanation for our findings.

Construal level as an Alternative Explanation. We also investigated whether the construal level was a mediator of the relationship between local-global identity and creativity. A bootstrapping procedure with 10,000 iterations showed that the indirect effect of the local-global identity index on creativity through thinking style was negative (-.01) but not significant (95% CI, -.08-.03 included zero). The result indicated that the construal level was also unlikely to be an alternative explanation for our results.

Discussion

Study 2A and 2B supported our core thesis that local (vs. global) identity strengthens the creativity with different operationalization. These studies also demonstrated the robustness of the relationship by ruling out holistic thinking and construal level as alternative explanations. Further, the study showed that the manipulation did not affect the time spent on the creativity task. However, a limitation was that the analyses did not test the mediating role of the relationship focus, while ruling out the mood and task involvement as alternative explanation for our findings.

STUDY 3: MEDIATOR STUDY

The study intends to replicate the previous result in another different operationalization (museum logo design). It also aims to test the underlying mechanism of the effect of local-global identity on creativity. In addition, the study rules out the task involvement as another alternative explanation, and mood did not affect our manipulation.

Participants, Design, and Procedure

One hundred and twenty-eight college students (59 females; 96.9% at 18-34 years old) participated the study. The local identity and global identity were manipulated as study 1A. The participants read the background information about the [Local City Name] Museum of Science and then were asked to design a logo for the museum.

After the drawing the logo, participants answered four questions on relationship focus using self-developed scale (1 = *Strongly Disagree* and 7 = *Strongly Agree*; $\alpha = .75$): (1) *At that time, I primarily thought about multiple associations among various aspects of the museum,* (2) *At that time, my focus was on the relations among different aspects of the museum,* (3) *At that time, I mainly focused on one separate aspect of the museum to design the logo (r),* and (4) *At that time, I primarily relied on one particular element of the museum to design the logo (r).* Next,

to rule out the mood as an alternative explanation, participants rated their current feeling in response to four bipolar measures ($\alpha = .91$): sad-happy, irritable-pleasant, depressed-cheerful and bad mood-good mood.

To further rule out the task involvement as an alternative explanation, we measured the task involvement as an alternative explanation using 2 items (1 = *Not at all* and 7 = *A lot*; $\alpha = .78$): (1) *How involved were you in the logo design*, and (2) *How much thought did you put into the logo design*.

Results

Creativity of the Logo Designed. We eliminate one participant who did not finish the logo design. To assess the creativity of logo designed, we recruited 10 judges from the same populations as our study participants. These 10 judges rated the originality, novelty, innovativeness, appropriateness, usefulness, and practicality of each of the 128 logos on a 7-point scale (1 = *not at all*, 7 = *very much*). We then averaged the 10 judges' ratings to obtain the mean judges' originality score ($\alpha = .81$), mean judges' novelty score ($\alpha = .79$), mean judges' innovativeness score ($\alpha = .80$), mean judges' appropriateness score ($\alpha = .78$), mean judges' usefulness score ($\alpha = .78$) and mean judges' practicality score ($\alpha = .76$) for each logo. The originality, novelty, innovativeness, appropriateness, usefulness, and practicality scores were then averaged to create an overall creativity index ($\alpha = .94$).

One-way ANOVA revealed a significant main effect of local-global identity on this creativity index ($F(1, 126) = 4.90, p < .05$), such that logos designed by respondents in the local identity condition ($M_{\text{local}} = 3.20$) were rated more as more creative than those in the global identity condition ($M_{\text{global}} = 2.91, t(126) = 2.21, p < .05$).

Mood on Museum Logo Design Task. To test whether our local-global identity manipulation changed participants' mood, one-way ANOVA showed no significant treatment

effect of local-global identity on the mood ($F(1, 126) = 1.46, p = .23$). The difference between participants in the local identity and those in the global identity was not significant ($M_{\text{local}} = 5.08$ vs $M_{\text{global}} = 4.80, t(126) = .37, p = .23$).

Mediating Role of Relationship Focus. As predicted, participants assigned to the local identity condition perceived higher level of relationship focus ($M_{\text{local}} = 4.17$) compared to those assigned to the global identity condition ($M = 3.67, t(126) = 2.15, p < .05$). To assess the proposed mechanism, we ran a mediation analysis using Model 4 of Hayes' (2012) PROCESS. A bootstrapping procedure with 10,000 iterations showed that the indirect effect of local-global identity on creativity via relationship focus was positive (.09) and significant (95% CI, .01–.22 excluded zero), supporting **H₂**.

Task involvement as an Alternative Explanation. We also investigated whether the involvement was a mediator of the relationship between local-global identity and creativity. A bootstrapping procedure with 10,000 iterations showed that the indirect effect of the local-global identity index on creativity through task involvement was positive (.05) but not significant (95% CI, -.03–.16 included zero). The result showed that the task involvement was unlikely to be an alternative explanation for our findings.

Discussion

Study 3 demonstrated that the relationship between local-global identity and creativity was mediated by relationship focus. Relative to globals, locals perceived higher level of relationship focus, which in turn, drove them to have a higher level of creativity. We also ruled out task involvement as an alternative explanation. Further, we showed that our manipulation did not affect the mood. In study 4, we explored boundary condition that strengthened or weakened the relationship between local-global identity and creativity.

STUDY 4: MODERATION STUDY

The study tests the moderator of salience of relationship focus in another creative setting (candle task). If our proposed “perceived relationship focus” account is correct, situationally enhancing the salience of relationship focus increased globals’ level of creativity, compared to a control condition in which the relationship focus was not changed. However, situationally enhancing the salience of relationship focus did not influence locals’ level of creativity as these consumers already perceive high level of relationship focus. Thus, locals are high in creativity in both the relationship focus-enhanced condition and the relationship focus-unchanged conditions.

In a same vein, situationally reducing the salience of relationship focus (compared to a control condition in which relationship focus was unchanged) reduced locals’ level of creativity, but did not affect globals’ level of creativity because globals already perceive low level of relationship focus to begin with. Thus, globals are low in creativity in both the relationship focus-reduced condition and the relationship focus-unchanged conditions.

Participants, Design, and Procedure

Two hundred and thirty Mturk workers (148 females; 40% at 18-34 years old) participated in exchanged for a small payment. The experiment consisted of a 2 (identity: local vs. global) \times 3 (salience of relationship focus: enhanced, reduced, unchanged) between-subject design.

Local identity and global identity manipulated as study 2A. Thereafter, participants were randomly assigned to one of three relationship focus conditions, which used a news report from a reputable magazine. In the relationship focus-enhanced condition, participants read a report regarding the most important skill for successful business leaders to be successful, in which there was a statement that “*the most important skill to be successful is the capability of identifying the commonality among totally different things and concepts*”. In the relationship focus-reduced condition, the statement was that “*..... is the ability to treat each aspect of an issue on its own*

merit without considering how it relates to other aspects of the issue". In the relationship focus-unchanged condition, the statement was "..... *is being persistent*". Afterwards, participants were presented with the candle task developed by Duncker (1945). Participants were given a picture showing several products on a table, including a candle, a pack of matches, and a box of tacks, all of which were next to a wall. Participants' task was to figure out how to attach the candle to the wall by using only objects on the table therefore the candle does not drop wax on the table or the floor. The correct solution consists of emptying the box of tacks, tacking it to the wall, and placing the candle inside, so that box of tacks is used as a candleholder.

Results

Manipulation Check (Need test from other studies).

In the relationship focus-unchanged condition, we expected to replicate the findings of the previous studies. The expectation was supported. A chi-square test revealed a significant main effect of local-global identity on the correctness of the solution ($\chi^2(1) = 6.36, p < .05$). Further, we conducted binary logistic regression analysis to assess the difference between the local identity condition and the global identity condition. The result showed that a higher percentage of participants in the local identity condition ($M_{\text{local}} = 87.8\%$) correctly solved the candle problem as compared to those in the global identity condition ($M_{\text{global}} = 62.1\%$, $B = 1.48$, standard error [SE] = .61, $Wald = 5.87, p < .05$).

Moderating Role of Relationship Focus-Enhanced (vs. Unchanged). We compared the creativity in the relationship focus-enhanced (vs. unchanged) conditions among locals and globals separately. A chi-square test showed the statistically significant difference ($\chi^2(3) = 8.39, p < .05$). In particular, the result revealed a main effect of identity ($B = 1.48, SE = .61, Wald = 5.87, p < .05$), a main effect of salience ($B = 1.48, SE = .61, Wald = 5.87, p < .05$), and more importantly, a significant two-way interaction effect between salience and identity ($B = -2.03, SE$

= .88, $Wald = 5.31, p < .05$). Further, a binary logistic regression revealed that a higher percentage of participants who were assigned to the global condition correctly solved the candle problem in the relationship-salience condition ($M_{\text{global}} = 87.8\%$) as compared to those globals in the unchanged condition ($M_{\text{global}} = 62.1\%$, $B = 1.48, SE = .61, Wald = 5.87, p < .05$). No difference was observed between the relationship-salience condition ($M_{\text{local}} = 80.6\%$) and unchanged condition for participants who were assigned to the local condition ($M_{\text{local}} = 87.8\%$, $B = -.55, SE = .64, Wald = .75, p = .39$), supporting **H_{3a}**.

Moderating Role of Relationship Focus-Reduced (vs. Unchanged). We compared the creativity in the relationship focus-reduced (vs. unchanged) conditions among locals and globals separately. A chi-square test showed the statistically significant difference ($\chi^2(3) = 9.08, p < .05$). In particular, the result revealed a main effect of identity ($B = 1.48, SE = .61, Wald = 5.87, p < .05$), no effect of salience ($B = .10, SE = .50, Wald = .37, p = .85$), and more importantly, a significant two-way interaction effect between salience and identity ($B = -1.41, SE = .76, Wald = 3.40, p = .07$). Further, a binary logistic regression revealed that a lower percentage of participants who were assigned to the local condition correctly solved the candle problem in the relationship-reduced condition ($M_{\text{local}} = 65.9\%$) as compared to those locals in the unchanged condition ($M_{\text{local}} = 87.8\%$, $B = -1.32, SE = .58, Wald = 5.16, p < .05$). No difference was observed between the relationship-reduced condition ($M_{\text{global}} = 64.3\%$) and unchanged condition for participants who were assigned to the global condition ($M_{\text{global}} = 62.1\%$, $B = .10, SE = .50, Wald = .04, p = .85$), supporting **H_{3b}**.

--- Insert figure 2 about here ---

Discussion

Study 4 demonstrated the moderation effect of salience of relationship focus. When the

relationship focus is enhanced (compared to a control condition in which relationship focus is not made salient), creativity among global would be increased, whereas locals' creativity would not be unaffected. When the relationship focus is reduced (compared to a control condition in which quality variance is not made salient), creativity among locals would be decreased, whereas globals' creativity would be unaffected. For the next study, we reported a field experiment to test the external validity of the findings.

STUDY 5: FIELD STUDY

The purpose of the field study is to provide evidence investigating the relationship of the local-global identity on the creativity in the real life setting.

Participants, Design, and Procedure

Seventy-three consumers (63 females; ; $M_{\text{age}} = 40.27$, $SD = 12.37$) purchasing at a local gourmet popcorn store were recruited in exchanged for a small monetary incentive. Participants were told that the popcorn store would like to improve and offer the best product to their customers. Therefore, participants were asked to generate new flavors of popcorn that the store introduce. After consumers suggested the new flavors of popcorn, following Tu et al. (2012), local identity (e.g., "*My heart mostly belongs to my local community*"; $\alpha = .94$) and global identity (e.g., "*My heart mostly belongs to the whole world*"; $\alpha = .89$) were each measured with 4-item, 7-point scales (1 = *Strongly disagree*, 7 = *Strongly agree*). Participants also reported their age and gender.

Results

All participants generated 123 unique favors of popcorn. To assess the creativity of flavors suggested, we recruited 7 employees from the popcorn store as judges. These 7 judges rated the originality, novelty, innovativeness, appropriateness, usefulness, and practicality of each of the 123 flavors on a 7-point scale (1 = *not at all*, 7 = *very much*). We than averaged the 7

judges' ratings to obtain the mean judges' originality score ($\alpha = .78$), mean judges' novelty score ($\alpha = .76$), mean judges' innovativeness score ($\alpha = .77$), mean judges' appropriateness score ($\alpha = .66$), mean judges' usefulness score ($\alpha = .64$) and mean judges' practicality score ($\alpha = .64$) for each logo. The originality, novelty, innovativeness, appropriateness, usefulness, and practicality scores were then averaged to create a creativity index ($\alpha = .88$). Further, the creativity index of all flavors for each consumers generated were averaged to form an overall creativity index, which serves as the dependent variable. Also, we took a relative score of local-global identity by subtracting the global identity from the local identity, with a higher score indicating greater level of local identity.

The regression analysis with the creativity index as the dependent variable, and the relative score of local-global identity as independent variable revealed a significant positive effect of local-global identity ($\beta = .23$, $t(72) = 2.07$, $p = .04$). The result supported H_1 , indicating that individuals with a local identity have a greater performance on creativity compared to individuals with a global identity.

Discussion

Using the real-life context, we were able to provide the evidence that consumer's local identity (vs. global identity) is positively related with consumers' performance on creativity.

GENERAL DISCUSSION

All studies provide converging and robust evidence for the relationship between local-global identity and creativity, using a variety of measures and manipulations of the key variables. Within an online website, study 1 showed that individuals in the campaign featuring the local identity showed the higher performance on creativity than those in the campaign featuring the global identity. Study 2A and 2B provided the evidence of the effect of local-global identity on

different creativity tasks with different samples: one in the experimental lab with student sample and another with non-student adults who were member of Amazon Mturk online panel. Study 3 assessed the role of relationship focus as the underlying process driving the effect on creativity using a logo design. Study 4 demonstrated the moderating role of relationship focus between identity salience and creativity. Further, study 5 replicated the previous finding to support the link from the local-global identity to creativity using a field study conducted at the popcorn store.

Theoretical Contributions

In summary, we provide converging evidence that local identity enhances creativity, using a variety of measures and tasks. As contribution, our finding is to provide new consequence, creativity, into the literature of local-global identity (Gao, Zhang and Mittal 2017; Ng and Batra 2017). Individuals who high local identity can have a greater level of creativity compare to those high in global identity.

Our research also contributes to the local-global identity literature by identifying perceived relationship focus as a new qualitative difference between these two identities. Also, we provide new cultural variable, local-global identity, into the creativity literature (Bechtoldt, Choi and Nijstad 2012; Chua, Roth and Lemoine 2015).

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