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How self-construal guides preference for partitioned versus combined pricing

Abstract

Marketers often offer equivalent pricing options by charging a base price and surcharges (partitioned pricing), or alternately offering a single price (combined pricing). The current study inquires into the systematic impact of a person's activated self-construal on the evaluation of product offers made under these alternate pricing frames. Findings from three experiments show that individuals with independent self-construal lean towards global processing and exhibit higher attractiveness and purchase intention for a product offered under partitioned (versus combined) pricing. Further, moderated mediation results show that the interaction effects of self-construal and pricing type on attractiveness and purchase intention is mediated by less effortful processing of pricing information. These results contribute to the pricing and self-construal literature. The results of this study would also help managers develop appropriate pricing strategies targeting different consumer segments.

Keywords: Partitioned pricing; combined pricing; self-construal; attractiveness; purchase intention

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Introduction

Consumers often come across different types of pricing, such as partitioned and combined. *Partitioned* pricing breaks the price charged to consumers into two or more components (e.g., a base price and mandatory surcharges). For example, an online retailer may charge \$300 for a mobile and a \$6.95 surcharge for shipping. Alternatively, the retailer could charge a single *combined* price of \$306.95. Technological advances allow online retailers to display pricing of the same product in different ways, depending on demand and consumer characteristics (Weisstein, Monroe, & Kukar-Kinney, 2013). With new generation algorithms, techniques such as partitioned pricing are becoming more pervasive. The application of partitioned pricing is prevalent across industries like cellular phone services, cable television, airline and hotel, in addition to online shopping. As competition in the market increases, companies use more complex pricing strategies such as partitioned pricing to differentiate themselves (Greenleaf, Johnson, Morwitz, & Shalev, 2016).

Despite frequent usage by retailers, the knowledge about partitioned pricing or its moderators has been described at best, as limited (Burman & Biswas, 2007). Only a few studies have examined variables like cognition, regulatory focus, fairness perception towards surcharges and seller trustworthiness as moderators (Lee, Choi, & Li, 2014; Carlson & Weathers, 2008; Burman & Biswas, 2007; Schindler, Morrin & Bechwati, 2005). Scholars therefore recommend that more inquiries should be conducted to understand how partitioned pricing, and its moderators continue to influence buyer decisions (Greenleaf et al., 2016; see a detailed call for research by these authors). The current work therefore examines how consumers' self-construal (an important segmenting and targeting variable; Kim & Johnson, 2014) systematically affects the preference for partitioned versus combined prices. The

current work also addresses a specific call for more research by Lee et al. (2014) to explore the role of buyer characteristics like self-construal. The role of self-construal in the context of partitioned pricing has not been proposed and empirically tested before. Similarly, scholars like Kienzler and Kowalkowski (2017) emphasize the need to conduct more scholarly work on pricing strategy research (PSR), as the topic of PSR is currently under represented in marketing journals.

A consistent finding in the literature shows that for partitioned pricing, consumers tend to ignore the surcharges and underestimate total prices, which in turn influences their purchase decisions (Greenleaf et al., 2016; Hossain & Morgan, 2007; Kim, 2006). In other words, consumers anchor onto the base price and fail to adjust upwards sufficiently, in response to the surcharges. This anchoring bias has been confirmed in the literature (Greenleaf et al., 2016; Morwitz, Greenleaf, & Johnson, 1998). However, the anchoring and adjustment literature suggests that, in general, failure to adjust from an initial anchor could be based on reasons such as the processing effort involved (Simmons, LeBoeuf, & Nelson, 2010; Epley & Gilovich, 2006; Wegener, Petty, Detweiler-Bedell, & Jarvis, 2001). In the current research, we build on this line of work to empirically show that consumers with independent self-construal find processing of partitioned prices less effortful, and therefore fail to adjust from the base price anchor. This in turn leads to favourable product evaluation.

In sum, across three studies, the current work shows that independent self-construal may find a product offer attractive and express higher purchase intention, when it is presented under a partitioned (vs. combined) pricing. This effect is further mediated by less effortful processing of price related information. The current findings therefore contribute to the literature on both self-construal (Kim & Johnson, 2014; Förster & Dannenberg, 2010) and pricing (Greenleaf et al., 2016; Morwitz et al., 1998). For example, the extant literature on self-construal reports mixed findings about whether independent self-construal leads to global

or local information processing (Förster & Dannenberg, 2010). In the light of these mixed findings, the current work tests this proposition in an initial laboratory experiment (study 1), followed by two more studies to examine the key premises of the current research, i.e. to understand how self-construal moderates the effects of pricing frames on attractiveness and purchase intention. The findings of the current work can be engaged by managers to formulate appropriate pricing strategies for target segments driven by different self-concepts.

The rest of the article is structured as follows. In the subsequent section, we focus on theoretical background, development of hypotheses and then report three experiments to test our key premises. The paper concludes with a general discussion of findings, their implications for theory and practice, and lastly with limitations and future research directions.

Conceptual background and hypothesis formulation

Partitioned and combined pricing

According to the extant literature, partitioned pricing is conceptualized as “a strategy that divides a product’s total price into a base price, charged for the product itself, and a mandatory surcharge(s) for products, services, fees, or taxes associated with purchasing or using the product” (Lee et al., 2014, p.356). The base price is normally the largest part, while the smaller component is referred to as surcharge (Morwitz et al., 1998). On the other hand, combined pricing charges an equivalent all-inclusive price for the focal product (Burman & Biswas, 2007). Although at times combined pricing may be confused with price bundling, these are different concepts. Combined pricing presents all pricing components of a product as a single price, whereas price bundling offers multiples products at a set price, instead of separate prices for the constituent products (Johnson, Herrmann, & Bauer, 1999).

Evidence shows that partitioned pricing can be more effective in increasing demand when compared to combined pricing. When exposed to partitioned pricing, consumers would tend to underestimate surcharges or even ignore them, and subsequently have a lower perception of total price (Hossain & Morgan, 2007; Kim, 2006). Therefore, the way consumers calculate the total price leads to a lower “psychological price” in the memory, which in turn influences demand (Dickson & Sawyer, 1990). Morwitz et al. (1998) explain the underlying process for calculating partitioned pricing by arguing that consumers make trade-off between cognitive effort and precision of information processing. In other words, buyers are more likely to use a heuristic approach to estimate total costs, or even ignore surcharges when processing surcharges place higher cognitive demand (Chetty, Looney, & Kroft, 2009). Additional explanation has been offered based on anchoring and adjustment paradigm. Consumers tend to anchor on the base price, and do not make sufficient adjustment in response to surcharges, thereby underestimating the total price (Clark & Ward, 2008; Morwitz et al., 1998).

The current literature reports that under certain conditions consumers can prefer either partitioned or combined prices. For example, previous findings report that people with high need for cognition seem to pay more attention to surcharges and their reasonableness, and thus tend to exhibit higher purchase intention for products that are offered under combined (vs. partitioned) pricing (Burman & Biswas, 2007). On the other hand, consumers lean towards partitioned prices when surcharges are separately shown for highly valued product attributes e.g., for extra storage space on mobile phones (Chakravarti, Krish, Paul, & Srivastava, 2002). Similarly, consumers are more favourable towards partitioned prices, when surcharges are used to highlight the attractiveness of such attributes, e.g., entertainment and meals on a flight (Bertini & Wathieu, 2008). These results suggest the importance of investigating boundary conditions, considering when and why partitioned pricing is more

effective (Greenleaf et al., 2016). In the current work, we posit that self-construal can moderate consumers' relative preference for partitioned pricing versus combined pricing.

Self-construal – Independent vs. Interdependent

Self-construal involves belief about “the relationship between the self and others, and especially, the degree to which they see themselves as separate from others or as connected with others” (Markus & Kitayama, 1991). People who have independent self-construal hold the view of self as unique and defined by their internal qualities and distinctive features. On the other hand, individuals who have interdependent self-construal hold the interpretation of self as defined by their social associations (Kim & Johnson, 2014). People possessing interdependent self-construal shows higher level of association to, and lower level of distinction from others (Markus & Kitayama, 1991).

Individuals can hold both independent and interdependent self-construal (Trafimow, Triandis, & Goto, 1991). However, for most individuals, one aspect is likely to be better developed, and thus more accessible, and recent research suggests that self-construal can be situationally induced and made temporarily accessible (Hong & Chang, 2015). People having independent self-construal focus on their desires and direct attention towards the self (Singelis, 1994; Markus & Kitayama, 1991). On the other hand, people having interdependent self-construal prefer links with others and value social embeddedness (Markus & Kitayama, 1991). Independent self-construal strives to establish one's exclusivity and differentiate themselves from others. In contrast, interdependent self-construal strives to gain social support and uphold their social image (Hong & Chang, 2015; Markus & Kitayama, 1991). Therefore, the latter often feels the need to justify their decisions to others (Hong & Chang, 2015).

Previous research shows that self-construal can be associated with a motivational state like regulatory focus, albeit these are different constructs. Conceptually, self-construal argues how “one” is separated from or linked with others. On the other hand, regulatory focus (Higgins, 1997) is a motivational state where people pursue their end goals of ideals and aspirations (a promotion focus) or fulfilment of obligations (a prevention focus). Past research shows that priming consumers’ self-construal (independent or interdependent) has made promotion and prevention goals salient (Hamilton & Biehal, 2005; Zhang & Mittal, 2007). While previous research has used self-construal as an antecedent to consumer decision making and choices (Aaker and Lee 2001; Lee, Aaker, & Gardner, 2000), no prior work has studied its role in the context of partitioned prices reported in this work. In fact, Lee et al. (2014) consider the robust link between self-construal and regulatory focus and recommend more research to study the former’s influence on partitioned (versus) combined prices.

Self-construal and information processing styles

When assessing perceptual information, people tend to look at either the gestalt (e.g., see the forest) or pay attention to the details of the information (e.g., see the trees); a process also referred to as global versus local information processing styles (Navon, 1977). Global processing tends to entail formation of coherent images from a fragmented visual input (Trope & Liberman, 2010). For example, participants under global processing can detect a global letter (e.g., a large L) which is made of local letters (e.g., 20 small Hs). On the other hand, local processing draws attention to constituent details, like the local letters (e.g., the small Hs), rather than the global letter i.e., the large L (Nisbett, Peng, Choi, & Norenzayan, 2001).

The concept of global versus local processing itself has drawn interesting debate in the field (for a detailed discussion please see Förster & Dannenberg 2010; Smith &

Ledgerwood, 2010). Early research of Navon (1977) argued that global processing (e.g., seeing the forest over trees) is the predominant norm (based on their global dominance hypothesis), while subsequent literature posits that seeing the trees over the forest could be the norm (Förster & Dannenberg, 2010). Generally, what is well accepted in the literature is that invoking a self (i.e., independent versus interdependent) leads to different styles of cognitive processing according to the global/local classification; albeit with opposing findings.

A number of studies report that triggering the independent self can lead to more local (vs. global processing) while the converse is true for the interdependent self (Lin, Lin, & Han, 2008; Krishna, Zhou, & Zhang, 2008; Kühnen & Oyserman, 2002). The underlying theoretical premise being that the independent self tends to ignore contextual information and this helps them to divert attention to the focal task (e.g., local letters for the Navon task). On the other hand, their counterparts can consider context dependent information to focus on the global nature of the task at hand (e.g., global letter in Navon task).

In the marketing context, similar results have been reported. For example, Krishna et al. (2008) report that independent (vs interdependent self construal's) are prone to spatial judgment bias that needs to consider (or exclude) the context. Similarly, Lalwani and Shavitt (2013) show that interdependent vs (independent) tend to consider more holistic (field dependent) information (e.g., price in relation to quality) in decision making. However, the notion that independent (vs interdependent) leads to local (global) processing has been challenged once again by existing work (Förster & Dannenberg, 2010). Based on findings of previous works (Lee et al., 2000; Aaker & Lee, 2001; Hamilton & Biehal, 2005), it is plausible that independent versus interdependent can lead to more global versus local processing, although this needs to be empirically tested.

First, Förster and Dannenberg (2010) mention Lee, Aaker and Gardner (2000) who manipulate self-construal to study its influence on information processing. Lee et al. (2000) argue that the primary objective of an independent self is to distinguish oneself in a positive manner from others, while the interdependent self is focused on maintaining harmony. From an information processing perspective, this self-enhancement motive can cause them to focus on certain information that is relevant to the evoked self, while ignoring others (Hamilton & Biehal, 2005). For example, past research shows that Americans (an independent culture) may uncritically accept positive information (e.g., praises) while ignoring negative criticism (Frey & Stahlberg, 1986). Such biases are attenuated or reversed in interdependent (e.g., Asian) cultures, the latter being more careful in processing an entire range of information including negative feedbacks (Heine & Lehman, 1997; Lee et al., 2000).

Based on the above argument, Lee et al. (2000) show that independent (versus interdependent) self can lead to preference for more promotion information. Promotion framed information typically focuses on gains (e.g., product benefits like enjoyment), while prevention framed information focuses on prevention of losses (e.g., product benefits that addresses security needs) (Aaker & Lee, 2001). A few other works (e.g., Aaker & Lee, 2001; Hamilton & Biehal, 2005) confirm the premise of Lee et al. (2000). Together, these works show that the independent (vs interdependent) self can prefer promotion information. Extant research e.g., Förster and Dannenberg (2010) argues that processing promotion information needs a global approach (seeing the forest), as compared to processing prevention information, which involves more local processing (looking at constituents like trees). Based on extant literature, we therefore propose that:

H1: Independent self-construal leads to more global processing compared to interdependent self-construal.

Self-construal and pricing frame

In partitioned pricing, the base price information is the largest component. This main component is most pertinent to purchase decision. If people with independent self-construal process information globally, they are more likely to pay attention to the base price. Recent evidence shows that when individuals pay more attention to primary information (e.g., base price), they are more susceptible to anchoring and adjustment heuristic (Lee et al., 2014). Subsequently they tend to anchor onto this primary information and insufficiently adjust from it (Morwitz et al., 1998; Lee et al., 2014). In other words, independent self-construal may ignore subsidiary information like surcharges, and will therefore underestimate the total price, leading to a lower psychological price. As a result, when compared to combined pricing, partitioned pricing would be more attractive for independent self-construal.

On the other hand, interdependent self-construal processes information through investigating every detail and peripheral cues (such as base price and surcharges) under partitioned pricing. These people are also more likely to make a careful comparison of both the price options, because of their tendency to process information in a detailed fashion. Because of this close comparison, they would probably conclude that these are equivalent options, but framed differently. Since partitioned pricing is relatively more effective when consumers only consider partial price information like the base price (Morwitz et al., 1998), we propose that:

H2: Independent self-construal will perceive (a) greater attractiveness and express (b) higher purchase intention when the product is offered under a partitioned versus combined price. Interdependent self-construal will perceive no difference in attractiveness and purchase intention between product offers made under partitioned versus combined pricing.

Processing effort as the underlying mechanism

Consumers often use an anchoring-and-adjustment heuristic for processing information (Epley & Gilovich, 2006). Current literature argues that the attractiveness of the partitioned price goes up as the respondents become susceptible to the anchoring bias, and do not process the surcharge information (Lee et al., 2014). Consumers anchor onto the base price as they perceive it to be the most important component of the price (Morwitz et al., 1998; Greenleaf et al., 2016). There is evidence to suggest that processing surcharges may place cognitive demand, and as such total price is determined by focusing on the base price (Chetty et al., 2009). This initial belief of low price may endure even after consumers see the surcharges, due to belief persistence (Greenleaf et al., 2016).

A substantive literature from the anchoring and adjustment field explains that when a respondent latches on to an anchor, adjustment or moving away from the anchor may prove effortful (Wegener et al., 2001; Epley & Gilovich, 2006). An anchor has an impact in the first place because the person takes the anchor as the best clue to the real quality of a target and makes insufficient adjustment from this initial anchor (Wegener et al., 2001). According to the effort-based explanation, this insufficient adjustment reflects the tendency to minimize cognitive effort (Epley & Gilovich, 2006). Previous work shows that expending less cognitive effort (or cognitive fluency) results in improved product evaluations (Lee & Labroo, 2004). In our case, independent self-construal will focus on the base price and ignore subsidiary information like surcharges (H2), or in other words make insufficient adjustment. Therefore, they are likely to expend less cognitive effort while processing partitioned pricing information. Based on this we posit:

H3: Independent self-construal's influence on (a) attractiveness and (b) purchase intention for product offered under partitioned pricing (as posited under H2) will be mediated by *less effortful* processing of price information.

The aforesaid predictions pertaining to H2 and H3 are represented in a conceptual framework below (Figure 1).

< Insert Figure 1 about here >

Overview of studies

We tested the aforesaid propositions with three experiments across different samples and product categories. Study 1, provides evidence that independent self-construal leads to more global processing (H1). *This is important given the mixed findings about self-construal's preference for global and local processing.* Study 2 provides evidence for H2 while study 3 replicates the results of H2 and tests our mediation hypothesis, H3.

Study 1

Participants and design

Study 1 was a 2 cell (self-construal: Interdependent versus. independent) between-subject design. A total of 128 students from a major *Asian university* participated in this study (females = 50%, $M_{age} = 21.4$). They were given 0.5 USD each as motivation for participant.

Self-construal was manipulated following a widely used procedure developed by *Krishna et al. (2008) and Gardner et al. (1999)*. The manipulation procedure asked participants to go through a reading (of scenario) pertaining to a city visit. This reading comprised of similar descriptions across the two self-construal conditions except the use of different pronouns to stimulate the comparative approachability of the two self-construal. We

used the singular form of all pronouns such as “I”, “you”, and “me” in the independent condition. On the other hand, we used the plural form of all pronouns such as “we”, “they”, and “us” in the interdependent condition. After being exposed to this priming task, participants indicated the degree “to which reading the scenario made them think about themselves and about others such as friends and family” on a 7-point scale (1 = *self*, 7 = *others*) (Krishna et al., 2008; Gardner et al., 1999).

Subsequently, participants took part in another unrelated cognitive psychology study pertaining to information processing. Following Kimchi and Palmer (1982) method, 12 figures were shown to the participants. On each trial, subjects were asked to indicate which of two comparison figures was more identical to a target figure. All figures were seen from either local or global contexts. The figures were either a triangle or a square (global form) made up of smaller triangles or squares (local forms). Subjects mentioned if a target figure was more identical to a group of objects that matched either its local or global share. The amount of times subjects matched the structures based on their global details (vs. than local details) was counted and considered as the dependent variable, with higher numbers denoting relatively more global processing.

Analysis and Results

Manipulation check. Subjects primed with interdependent self-construal assigned higher weight to others rather than self ($M_{\text{Independent}} = 2.47$, $SD = .96$, $M_{\text{Interdependent}} = 5.06$, $SD = .91$, $t(126) = 15.73$, $p < .001$). Therefore, the results show that the self-construal prime was successful.

Information processing style. Findings showed an effect of self-construal on information processing, $t(126) = 7.14$, $p < .001$). Specifically, subjects primed with independent self-construal made more global choices than subjects primed with interdependent self-construal

($M_{\text{Independent}} = 8.61$, $SD = 1.24$, $M_{\text{Interdependent}} = 7.03$, $SD = 1.25$). These results support H1. The results of first study provided evidence that independent self-construal leads to more global processing.

Discussion

Study 1 found that individuals with independent self-construal process information more globally compared to interdependent self-construal. These results contribute to the debate on the relationship between self-construal and information processing style and take the stand that independent self-construal processes information more globally. This aligns with previous findings (Lee et al., 2000; Aaker & Lee, 2001). Study 2 is designed to test H2.

Study 2

Participants and design

A total of 144 students (females = 45%, $M_{\text{age}} = 23$) from a major Asian university took part in the study in exchange of a pen worth 0.5 USD. A 2 (self-construal: independent vs. interdependent) \times 2 (pricing: partitioned vs. combined) between-subject design was followed. Participants were randomly allocated to the experimental conditions. The self-construal manipulation used the same priming procedure as in Study 1.

Next, participants participated in another seemingly unrelated study of consumer behaviour. Subjects were instructed to imagine that they are purchasing a mobile through an online retail store. Following Lee et al. (2014), the mobile was offered under partitioned versus combined price (see Appendix for the stimuli), with matching features across price conditions.

After being exposed to this price manipulation priming, subjects rated the attractiveness of the price with two items on 7-point scales: “overall, the offer is very” 1 =

‘unattractive’, 7 = ‘very attractive’; 1 = ‘very undesirable’, 7 = ‘very desirable’, $\alpha = .79$; Lee et al. 2014). Participants also reported the intention of buying the mobile with three-items on 7-point scales (i.e., “the likelihood of my purchasing the mobile is”; “the probability that I would consider buying the mobile is”; and “my willingness to buy the mobile is”; 1 = ‘very low’, 7 = ‘very high’; $\alpha = .87$; Lee et al. 2014).

Analysis and Results

Manipulation check. Subjects primed with interdependent self-construal assigned more weight to others rather than self ($M_{\text{Independent}} = 2.31, SD = .87, M_{\text{Interdependent}} = 4.96, SD = 1.01, t(142) = 16.89, p < .001$). Thus, self-construal manipulation prime was successful.

Attractiveness of offer. The main effects of price ($F(1, 140) = 16.75, p < .001$, partial $\eta^2 = .11$) and self-construal ($F(1, 140) = 13.94, p < .001$, partial $\eta^2 = .09$) on attractiveness were significant. The interaction effect of price and self-construal on attractiveness was also significant ($F(1, 140) = 15.31, p < .001$, partial $\eta^2 = .10$).

Results of planned contrast analyses revealed that partitioned price (vs. combined price) was more attractive when subjects were primed with independent self-construal ($M_{\text{Partitioned}} = 5.97, SD = .60, M_{\text{Combined}} = 4.74, SD = 1.14, t(140) = 5.66, p < .001$), but this did not differ for interdependent participants ($M_{\text{Partitioned}} = 4.79, SD = .87, M_{\text{Combined}} = 4.76, SD = 1.00, t(140) = .127, p > .05$). These results support H2a.

Purchase intention. The main effects of price ($F(1, 140) = 9.00, p < .05$, partial $\eta^2 = .06$) and self-construal ($F(1, 140) = 6.05, p < .05$, partial $\eta^2 = .04$) on purchase intention were significant. As hypothesized, the interaction effect of price and self-construal on purchase intention was also significant ($F(1, 140) = 10.89, p < .05$, partial $\eta^2 = .07$). Results of planned contrast analyses revealed that partitioned price (vs. combined price) was more fruitful in encouraging purchase intention while subjects were primed with independent self-

construal ($M_{\text{Partitioned}} = 5.88$, $SD = .50$, $M_{\text{Combined}} = 4.91$, $SD = 1.06$, $t(140) = 4.45$, $p < .05$), but did not differ significantly for interdependent self-construal ($M_{\text{Partitioned}} = 4.99$, $SD = .75$, $M_{\text{Combined}} = 5.03$, $SD = 1.22$, $t(140) = -.21$, $p > .05$). Thus, these results also support H2b. Means for both dependent variables are reported in Table 1, while Figure 2 and Figure 3 plot the interaction effect.

< Insert Table 1 about here >

< Insert Figures 2 and 3 about here >

Discussion

Study 2 provides support for our H2 and signifies that individuals with independent self-construal perceive (a) greater attractiveness and express (b) higher purchase intention when a product is offered under a partitioned versus combined price. However, this effect was attenuated for individuals with interdependent self-construal. To test the possible mechanism behind this effect (H3), the third experiment was conducted with a different product category (air ticket). Thus study 3 was designed to replicate the findings from study 2 (H2) with a different product category, as well as to test the mechanism (H3).

Study 3

Participants and design

A total of 114 students (females = 43%, $M_{\text{age}} = 22.2$) from a large Asian university were randomly allocated to a 2 (self-construal: independent vs. interdependent) \times 2 (pricing: partitioned vs. combined) between-subject design. Participants took part in two unrelated studies, of which the first one was self-construal manipulation using same procedure as study 1. The second study pertained to purchase of an air ticket under different pricing frames (see Appendix). Following this, participants once again answered the same key dependent variables along with a mediating variable, the mediating variable was measured by a single

item, “I think processing the price information was effortful” (Chetty et al. 2009) measured on a seven-point scale with 1 = strongly disagree and 7 = strongly agree. Extant literature supports the use of single-item measures (e.g., Bergkvist & Rossiter, 2007). Each participant was given a pen of .5USD for their participation in the study at end.

Analysis and Results

Manipulation check. Subjects primed with interdependent self-construal assigned more weight to others rather than self ($M_{\text{Independent}} = 2.44, SD = .82, M_{\text{Interdependent}} = 5.0, SD = .95, F(1, 112) = 237.8, p < .001$) to show that our manipulation was successful.

Attractiveness of offer. The main effects of price ($F(1, 110) = 9.13, p < .001, \text{partial } \eta^2 = .07$) and self-construal ($F(1, 110) = 31.8, p < .001, \text{partial } \eta^2 = .23$) on attractiveness were once again significant. More importantly, the interaction effect of price and self-construal was also significant ($F(1, 110) = 6.85, p < .05, \text{partial } \eta^2 = .06$). **Planned contrast analyses** showed that partitioned price, compared to combined price was more attractive while subjects were primed with independent self-construal ($M_{\text{Partitioned}} = 5.0, SD = .67, M_{\text{Combined}} = 4.29, SD = .56, t(110) = 3.98, p < .001$), while no difference was observed for the interdependent ($M_{\text{Partitioned}} = 3.96, SD = .65, M_{\text{Combined}} = 3.91, SD = .78, t(110) = .28, p > .05$).

Purchase intention. The results of two-way ANOVA showed a main effect for price ($F(1, 110) = 15.0, p < .001, \text{partial } \eta^2 = .12$) and self-construal ($F(1, 110) = 14.10, p < .001, \text{partial } \eta^2 = .11$) on purchase intention. Once again like study 2, the interaction between price and self-construal on purchase intention was also significant ($F(1, 110) = 10.84, p < .01, \text{partial } \eta^2 = .09$). **Planned contrast analyses** showed a significant difference for independent ($M_{\text{Partitioned}} = 5.25, SD = .63, M_{\text{Combined}} = 4.38, SD = .64, t(110) = 5.07, p < .001$), but no difference for interdependent ($M_{\text{Partitioned}} = 4.39, SD = .62, M_{\text{Combined}} = 4.32, SD = .70, t(110) = .41, p > .05$). Results support H2a and H2b. Means for both DVs are reported in Table 2.

Similarly, a two-way ANOVA of self-construal and price type on the mediating variable ‘effortful to process’ shows main effects of self-construal ($F(1, 110) = 23.85, p < .001$, partial $\eta^2 = .17$) and price type ($F(1, 110) = 9.28, p < .05$, partial $\eta^2 = .08$). The interaction effect is also significant, $F(1, 110) = 5.17, p < .05$, partial $\eta^2 = .05$. Planned contrasts show that subjects with independent self-construal perceived partitioned pricing as less effortful to process than combined pricing ($M_{\text{Partitioned}} = 3.36, SD = 1.13, M_{\text{Combined}} = 4.55, SD = 1.33; t(110) = -3.76, p < .001$). However, the planned contrasts show that subjects with interdependent self-construal perceived both partitioned pricing combined pricing equally effortful to process ($M_{\text{Partitioned}} = 4.96, SD = 1.10, M_{\text{Combined}} = 5.14, SD = 1.21; t(110) = -.55, p > 0.05$). These results show that individuals with independent self-construal perceive partitioned pricing as less effortful to process which is in line with our expectation pertaining to H3. Subsequently, we test the mediating role of effortful processing using Hayes (2013) moderated mediation reported below.

< Insert Table 2 about here >

Moderated mediation model

To examine if ‘effortful to process’ mediates the interacting effects of self-construal and price type on attractiveness and purchase intention respectively, we have used PROCESS model 8 (Hayes, 2013). The model considers pricing type as the independent variable, self-construal as the moderator, effortful to process as the mediator, and attractiveness as the dependent variable. Results of Model 8 with 5,000 bootstrap samples show that the conditional direct effect (.75) of pricing type on attractiveness is significant for independent self-construal as the 95% confidence interval (CI_{95%}) does not carry any zero (.27 to .01). However, there is no significant impact of pricing type on attractiveness for interdependent self-construal as the direct effect (.02) at a CI_{95%} carries a zero (-.10 to .03). These PROCESS results once again confirm the prior ANOVA results pertaining to H2a. More importantly, the conditional

indirect effect ($IE = .11$) of pricing type on attractiveness shows that ‘effortful to process’ mediates the impacts of pricing type on attractiveness for independent self-construal ($CI_{95\%} = .27$ to $.01$), but not for interdependent self-construal ($IE = .01$, $CI_{95\%} = -.10$ to $.03$). These results support our prediction H3a.

Similarly, PROCESS Model 8 results with 5,000 bootstrap samples (Hayes, 2013) for the dependent variable purchase intention show the conditional direct effect ($.82$) of price type on purchase intention is significant for independent self-construal ($CI_{95\%} = 1.19$ to $.46$), but not for interdependent self-construal (indirect effect = $-.07$, $CI_{95\%} = -.41$ to $.28$). These results reconfirm the prior ANOVA results pertaining to H2b. Interestingly, as expected, the conditional indirect effect of price type on purchase intention show a significant effect for independent self-construal ($IE = .12$, $CI_{95\%} = .01$ to $.29$), but not for interdependent self-construal ($IE = -.02$, $CI_{95\%} = -.03$ to $.12$). These results support H3b.

General discussion

Three experiments were conducted to study (i) the relationship between self-construal and information processing style, and (ii) how self-construal moderates the preference for partitioned versus combined pricing amongst consumers and finally, (iii) the possible mechanism underlying the moderation effect. Findings from the first study show that when independent (versus interdependent) self-construal is activated subjects preferred global versus local information processing style. It was further argued that independent self-construal’s preference for global processing would make them more susceptible to the influence of partitioned pricing. Furthermore, reliance on the main feature of partitioned pricing (e.g., base price) would make them susceptible to the anchoring bias, ignoring the surcharges. As a result, independent self-construal would find it less effortful to process

partitioned pricing information and exhibit higher product attractiveness and purchase intention.

Supporting these arguments, studies 2 and 3 showed that when a subject's independent self-construal was activated, they perceived the product offer to be more attractive, and expressed higher purchase intention in response to the partitioned versus combined pricing (study 2). Their counterparts did not make any such distinction. Further, results of moderated mediation (study 3) provided evidence for the underlying mechanism. 'effortful to process' mediates the impact of self-construal and pricing type, such that individuals with independent self-construal perceived processing of partitioned pricing as less effortful, leading to higher product attractiveness and purchase intention. However, these effects were not obtained for individuals with interdependent self-construal.

Conceptual contribution

The results of this study have a few theoretical contributions. First, this study adds to the existing mixed findings on the relationship between self-construal and information processing style. One school of thought indirectly argues that independent self-construal tends to follow global (vs. local) information processing (Lee et al., 2000; Aaker & Lee, 2001), while the others argue that independent self-construal tends to process local (vs. global) information (Kühnen & Oyserman, 2002; Lin et al., 2008; Lalwani & Shavitt, 2013). The mixed findings discovered across different studies warrant a further investigation of this important phenomenon. The results of this study, at least in the context of price framing support the existing findings (Lee et al., 2000; Aaker & Lee, 2001;) that independent self-construal tend to follow global (vs. local) information processing style.

Secondly, though partitioned pricing has received considerable attention in the industry (especially in e-commerce) over the last decade, scholars recommend more work to

understand why and how consumers prefer partitioned versus combined prices (Burman & Biswas, 2007; Greenleaf et al., 2016;). Specifically, Lee et al. (2014) call for more research to inquire into the role of buyers' characteristics like "self-construal" as a moderator of partitioned pricing. To address these gaps, the present study proposed and tested a conceptual framework regarding the effectiveness of partitioned versus combined prices, albeit when different types of self-construal are activated. Our findings enhance consumer researchers' knowledge by showing that the type of pricing can moderate the impact of self-construal on evaluation and purchase behaviour. The preference for partitioned (over combined) pricing was guided by independent self-construal.

Finally, the current study also delves into the underlying psychological process that explains the relationship between self-construal and pricing type. While previous literature (Lee et al., 2014) has argued that the attractiveness of partitioned pricing is due to less effortful processing (a result of anchoring bias), the current study provides empirical evidence to this effect. Findings show that, independent self-construal indeed find it less effortful to process pricing information, when they are exposed to partitioned prices. Moderated mediation results confirm that independent self-construal seem to anchor on to the base price, ignoring the surcharges and thus find processing partitioned pricing as less effortful, which in turn results in higher perceptions of product attractiveness and purchase intention. These results contribute to the pricing literature by exploring a new mechanism, 'effortful to process' (e.g., Burman & Biswas, 2007; Greenleaf et al., 2016).

Managerial implication

Our study has several managerial implications too. Based on the current research, we find that people with independent self-construal are favourably pre-disposed towards partitioned pricing in terms of attractiveness and purchase intention. Self-construal can therefore serve as

the basis for segmentation while considering different pricing strategies (Burman & Biswas, 2007; Greenleaf et al., 2016). For example, while promoting products to people who are more likely to be independent focused, marketers may use partitioned prices. Similarly, previous findings show that Western countries tend to rank high on independent self-construal, while Asian countries are more focused on the interdependent self-construal (Monga & John, 2007). Based on this, we suggest that managers targeting customers of Western countries may benefit from partitioned pricing strategy as previous research shows culture may influence consumers' price perceptions (Choi & Mattila, 2006).

Further, in certain industries like hotel and airlines, it is often a norm to nickel and dime customers, as engaging partitioned prices lead to favourable product perception, especially when consumers engage in price comparison (Hamilton, Abraham, & Srivastava, 2010). Hotel and airlines may therefore benefit from pitching partitioned prices to independent self-construal. Past research shows that hedonic products like perfume and high-end wine may trigger an independent self-construal (Hong & Chang, 2015). Marketers of such products may once again benefit from partitioned prices (e.g., showing separate surcharges). Further these prices can be especially used in an online environment as pricing algorithms may allow to display prices in a partitioned format. In response to these partitioned prices, customers are likely to expend less effort while processing price information and consequently exhibit favourable product evaluation and purchase intention.

Limitations and future directions

Like any other study, this study has a few limitations which open avenues for future research. Firstly, for the current work we activated self-construal situationally, using a well-established method from the literature (Krishna et al., 2008; Hong & Chang, 2015), for all the three studies. However, self-construal is also culturally determined (Monga & John, 2007) and past

research has also used other priming to manipulate this construct (Trafimow et al., 1991).

Future research may therefore replicate our findings using different manipulation or by conducting studies across different cultures, as cultural associations can influence consumer behaviour (Romero & Craig, 2017).

Future work may also focus on additional mediators underlying the effect explored in the current work, especially for interdependent self-construal. For example, it is possible that under combined pricing subjects may feel more pressure to justify their decision, and hence end up not favouring any particular type of price. It may also be worthwhile to consider different situational characteristics like the role of affect and mood. Future studies may therefore benefit from studying the effect of mood on susceptibility to partitioned pricing. Finally, future studies can also engage different product categories or use services to extend the findings of the current work.

References

- Aaker, J. L., & Lee, A. Y. (2001). “I” seek pleasures and “we” avoid pains: The role of self-regulatory goals in information processing and persuasion. *Journal of Consumer Research*, 28(1), 33-49.
- Bertini, M., & Wathieu, L. (2008). Research Note-Attention arousal through price partitioning. *Marketing Science*, 27 (2), 236-246.
- Bergkvist, L., & Rossiter, J. R. (2007). The predictive validity of multiple-item versus single-item measures of the same constructs. *Journal of Marketing Research*, 44(2), 175-184.
- Burman, B., & Biswas, A. (2007). Partitioned pricing: Can we always divide and prosper? *Journal of Retailing*, 83(4), 423-436.
- Carlson, J. P., & Weathers, D. (2008). Examining differences in consumer reactions to partitioned prices with a variable number of price components. *Journal of Business Research*, 61 (7), 724-731.
- Chakravarti, D., Krish, R., Paul, P., & Srivastava, J. (2002). Partitioned presentation of multicomponent bundle prices: evaluation, choice and underlying processing effects. *Journal of Consumer Psychology*, 12 (3), 215-229.
- Chetty, R., Looney, A., & Kroft, K. (2009). Salience and taxation: Theory and evidence. *The American Economic Review*, 99, 1145-1177.
- Choi, S., & Mattila, A. S. (2006). The role of disclosure in variable hotel pricing: A cross-cultural comparison of customers’ fairness perceptions. *Cornell Hotel and Restaurant Administration Quarterly*, 47(1), 27-35.
- Clark, J. M., & Ward, S. G. (2008). Consumer behavior in online auctions: An examination of partitioned prices on eBay. *Journal of Marketing Theory and Practice*, 16, 57- 66.
- Dickson, P. R., & Sawyer, A. G. (1990). The price knowledge and search of supermarket shoppers. *The Journal of Marketing*, 54, 42-53.
- Epley, N., & Gilovich, T. (2006). The anchoring and adjustment heuristic: Why adjustments are insufficient. *Psychological Science*, 17, 311–318.
- Frey, D., & Stahlberg, D. (1986). Selection of information after receiving more or less reliable self-threatening information. *Personality & Social Psychology Bulletin*, 12, 434-441.
- Förster, J., & Dannenberg, L. (2010). GLOMOSys: A systems account of global versus local processing. *Psychological Inquiry*, 21(3), 175-197.
- Gardner, W. L., Gabriel, S., & Lee, A. Y. (1999). “I” value freedom, but “We” value relationships: Self-construal priming mirrors cultural differences in judgment. *Psychological Science*, 10, 321–326.
- Greenleaf, E. A., Johnson, E. J., Morwitz, V. G., & Shalev, E. (2016). The price does not include additional taxes, fees, and surcharges: A review of research on partitioned pricing. *Journal of Consumer Psychology*, 26, 105-124.
- Hamilton, R. W., Abraham, A. T., & Srivastava, J. (2010). When Should You Nickel and Dime Your Customers? *MIT Sloan Management Review*, 52(1), 59.
- Hamilton, R. W., & Biehal, G. J. (2005). Achieving your goals or protecting their future? The effects of self-view on goals and choices. *Journal of Consumer Research*, 32(2), 277-283.

- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Press.
- Heine, S., & Lehman, D. (1995). Cultural variation in unrealistic optimism: Does the West feel more invulnerable than the East? *Journal of Personality and Social Psychology*, 68, 603-618.
- Higgins, E. T. (1997). Beyond pleasure and pain. *American psychologist*, 52(12), 1280.
- Hong, J., & Chang, H. H. (2015). “I” follow my heart and “We” rely on reasons: The impact of self-construal on reliance on feelings versus reasons in decision making. *Journal of Consumer Research*, 41, 1392-1411.
- Hossain, T., & Morgan, J. (2007). ... plus shipping and handling: Revenue (non) equivalence in field experiments on ebay. *The BE Journal of Economic Analysis & Policy*, 6, 63-91.
- Johnson, M. D., Herrmann, A., & Bauer, H. H. (1999). The effects of price bundling on consumer evaluations of product offerings. *International Journal of Research in Marketing*, 16(2), 129-142.
- Kienzler, M., & Kowalkowski, C. (2017). Pricing Strategy: A Review of 22 Years of Marketing Research. *Journal of Business Research*, 78, 101-110.
- Kim, H. M. (2006). Consumers’ responses to price presentation formats in rebate advertisements. *Journal of Retailing*, 82, 309-317.
- Kim, J. E., & Johnson, K. P. (2014). Shame or pride? The moderating role of self-construal on moral judgments concerning fashion counterfeits. *European Journal of Marketing*, 48, 1431-1450.
- Kimchi, R., & Palmer, S. E. (1982). Form and texture in hierarchically constructed patterns. *Journal of Experimental Psychology: Human Perception and Performance*, 8, 521-535.
- Krishna, A., Zhou, R., & Zhang, S. (2008). The effect of self-construal on spatial judgments. *Journal of Consumer Research*, 35, 337-348.
- Kühnen, U., & Oyserman, D. (2002). Thinking about the self influences thinking in general: Cognitive consequences of salient self-concept. *Journal of Experimental Social Psychology*, 38(5), 492-499.
- Lalwani, A. K., & Shavitt, S. (2013). You get what you pay for? Self-construal influences price-quality judgments. *Journal of Consumer Research*, 40(2), 255-267.
- Lee, K., Choi, J., & Li, Y. J. (2014). Regulatory focus as a predictor of attitudes toward partitioned and combined pricing. *Journal of Consumer Psychology*, 24, 355–362.
- Lee, A. Y., Aaker, J. L., & Gardner, W. L. (2000). The pleasures and pains of distinct self-construals: The role of interdependence in regulatory focus. *Journal of Personality and Social Psychology*, 78(6), 1122.
- Lee, A. Y., & Labroo, A. A. (2004). The effect of conceptual and perceptual fluency on brand evaluation. *Journal of Marketing Research*, 41(2), 151-165.
- Lin, Z., Lin, Y., & Han, S. (2008). Self-construal priming modulates visual activity underlying global/local perception. *Biological psychology*, 77(1), 93-97.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion and involvement. *Psychology Review*, 98, 224–253.

- Monga, A. B., & John, D. R. (2007). Cultural difference in brand extension evaluation: The influence of analytic versus holistic thinking. *Journal of Consumer Research*, 33, 529–536.
- Morwitz, V., Greenleaf, E., & Johnson, E. J. (1998). Divide and prosper: consumers' reaction to partitioned prices. *Journal of Marketing Research*, 35, 453-463.
- Navon, D. (1977). Forest before trees: The precedence of global features in visual perception. *Cognitive Psychology*, 9, 353-383.
- Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: holistic versus analytic cognition. *Psychological Review*, 108(2), 291-310.
- Romero, M., & Craig, A. W. (2017). Costly curves: How human-like shapes can increase spending. *Journal of Consumer Research*, 44(1), 80-98.
- Schindler, R. M., Morrin, M., & Bechwati, N. N. (2005). Shipping charges and shipping-charge skepticism: Implications for direct marketers' pricing formats. *Journal of Interactive Marketing*, 19, 41-53.
- Simmons, J. P., LeBoeuf, R. A., & Nelson, L. D. (2010). The effect of accuracy motivation on anchoring and adjustment: Do people adjust from provided anchors? *Journal of Personality and Social Psychology*, 99, 917–932
- Singelis, T. M. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychological Bulletin*, 20, 580–591.
- Smith, P. K., & Ledgerwood, A. (2010). Three Problems with Dual Systems. *Psychological Inquiry*, 21(3), 242-249.
- Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological Review*, 117, 440-463.
- Trafimow, D., Triandis, H., & Goto, S. (1991). Some tests of the distinction between the private self and the collective self. *Journal of Personality and Social Psychology*, 60, 649–655.
- Weisstein, F. L., Monroe, K. B., & Kukar-Kinney, M. (2013). Effects of price framing on consumers' perceptions of online dynamic pricing practices. *Journal of the Academy of Marketing Science*, 41(5), 501-514.
- Wegener, D. T., Petty, R. E., Detweiler-Bedell, B. T., & Jarvis, W. B. G. (2001). Implications of attitude change theories for numerical anchoring: Anchor plausibility and the limits of anchor effectiveness. *Journal of Experimental Social Psychology*, 37(1), 62-69.
- Zhang, Y. and Mittal, V. (2007). The attractiveness of enriched and impoverished options: Culture, self-construal, and regulatory focus. *Personality and Social Psychology Bulletin*, 33, 588-598.

List of tables

Table 1

Study 2: Attractiveness and purchase intention across self-construal and pricing type

Dependent variables	Independent self-construal		Interdependent self-construal	
	Partitioned pricing	Combined pricing	Partitioned pricing	Combined pricing
Attractiveness	5.97	4.74	4.79	4.76
Purchase intention	5.88	4.91	4.99	5.03

Table 2

Study 3: Attractiveness and purchase intention across self-construal and pricing type

Dependent variables	Independent self-construal		Interdependent self-construal	
	Partitioned pricing	Combined pricing	Partitioned pricing	Combined pricing
Attractiveness	5.00	4.29	3.96	3.91
Purchase intention	5.25	4.38	4.39	4.32

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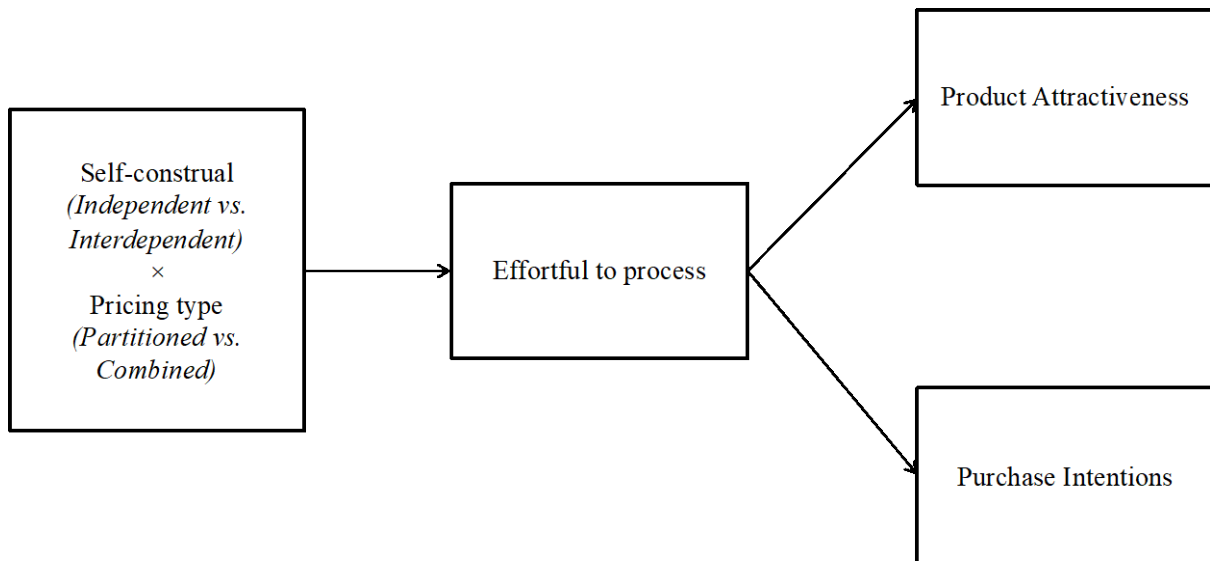


Figure 1: Conceptual framework of the study

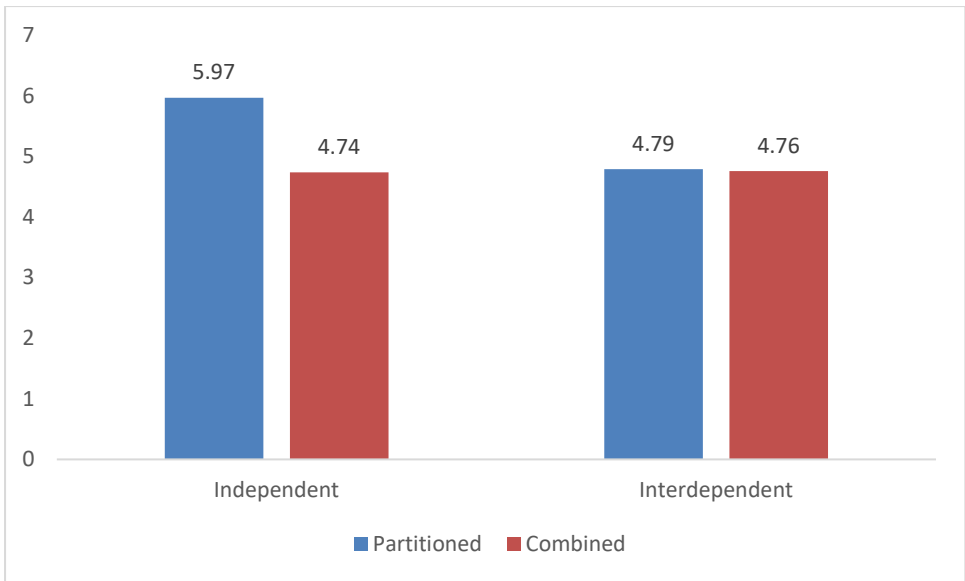


Figure 2: Attractiveness as a function of self-construal and pricing

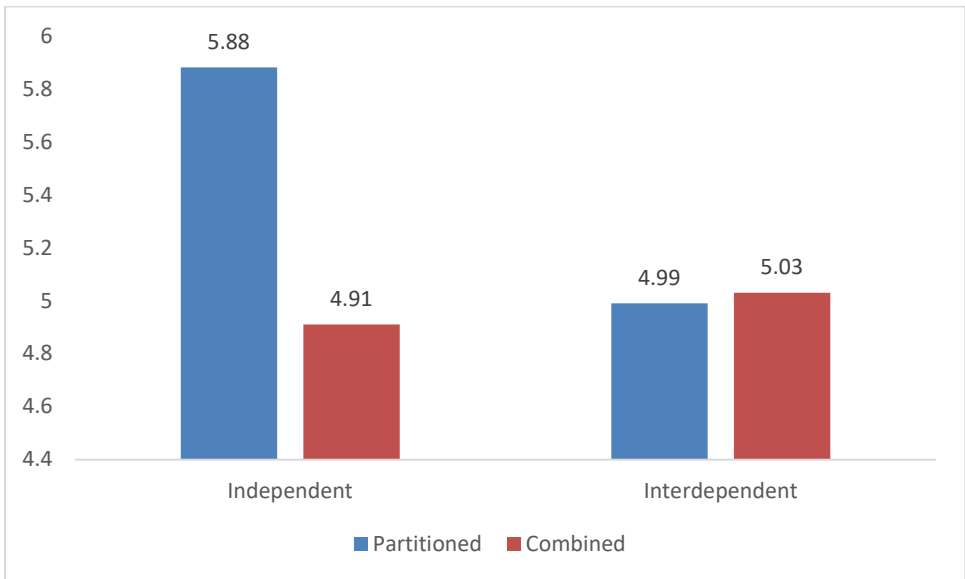


Figure 3: Purchase intention as a function of self-construal and pricing

Appendix

Study 2 stimulus: mobile pricing manipulation – partitioned pricing versus combined pricing

Online Mobile Shopping Invoice	Online Mobile Shopping Invoice																		
<ul style="list-style-type: none"> • Same online shopping website • Same Mobile • Same destination of delivery • Same Services 	<ul style="list-style-type: none"> • Same online shopping website • Same Mobile • Same destination of delivery • Same Services 																		
<p>Price details</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">Quantity</td> <td style="text-align: right;">1</td> </tr> <tr> <td>Price of handset</td> <td style="text-align: right;">\$222</td> </tr> <tr> <td><i>Tax and other charges</i></td> <td></td> </tr> <tr> <td><i>Tax</i></td> <td style="text-align: right;">\$5</td> </tr> <tr> <td><i>Shipping charges</i></td> <td style="text-align: right;">\$2</td> </tr> <tr> <td>Total Fare</td> <td style="text-align: right;">\$ 229</td> </tr> </table>	Quantity	1	Price of handset	\$222	<i>Tax and other charges</i>		<i>Tax</i>	\$5	<i>Shipping charges</i>	\$2	Total Fare	\$ 229	<p>Price details</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">Quantity</td> <td style="text-align: right;">1</td> </tr> <tr> <td>Total Price of handset</td> <td style="text-align: right;">\$229</td> </tr> <tr> <td colspan="2"><i>(Inclusive of Tax and other charges)</i></td> </tr> </table>	Quantity	1	Total Price of handset	\$229	<i>(Inclusive of Tax and other charges)</i>	
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Price of handset	\$222																		
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<i>Shipping charges</i>	\$2																		
Total Fare	\$ 229																		
Quantity	1																		
Total Price of handset	\$229																		
<i>(Inclusive of Tax and other charges)</i>																			

Study 3 Stimulus: air ticket pricing manipulation – partitioned pricing versus combined pricing

FLIGHT XX-YY	FLIGHT XX-YY														
<ul style="list-style-type: none"> • Same Airline • Same Timings • Same Services 	<ul style="list-style-type: none"> • Same Airline • Same Timings • Same Services 														
<p>Air Fare details</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">Base Fare</td> <td style="text-align: right;">\$ 89</td> </tr> <tr> <td><i>Tax and other charges</i></td> <td></td> </tr> <tr> <td><i>Passenger service fee</i></td> <td style="text-align: right;">\$ 6</td> </tr> <tr> <td><i>User Development fee</i></td> <td style="text-align: right;">\$ 9</td> </tr> <tr> <td><i>Airline Service Tax</i></td> <td style="text-align: right;">\$ 2</td> </tr> <tr> <td><i>Other Surcharge</i></td> <td style="text-align: right;">\$ 5</td> </tr> <tr> <td>Total Fare</td> <td style="text-align: right;">\$ 111</td> </tr> </table>	Base Fare	\$ 89	<i>Tax and other charges</i>		<i>Passenger service fee</i>	\$ 6	<i>User Development fee</i>	\$ 9	<i>Airline Service Tax</i>	\$ 2	<i>Other Surcharge</i>	\$ 5	Total Fare	\$ 111	<p>Air Fare \$ 111 (inclusive of Tax and other charges)</p>
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