ABSTRACT

Title of Document: A MULTI-METHOD EXAMINATION OF PARTITIONED PRICING.

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This dissertation investigates the relationship between partitioned pricing (Morwitz, Greenleaf, and Johnson 1998) and dependent variables such as demand, preference, and attention.

The first essay proposes a theoretical framework to examine extant and new moderators of partitioned pricing, classifying moderators based on the source of their impact as *presentational*, *evaluative,* or *attentional*. A meta-analysis of 17 years of research on partitioned pricing examines 149 observations from 43 studies in 27 papers (N = 12,878). The perceived benefit of the surcharge and the typicality of partitioning the surcharge in the category emerge as robust moderators of the effect of partitioned pricing on consumer demand. Surcharges for components perceived to provide high benefit and highly typical surcharges make partitioned prices more attractive. Replicating the meta-analytic effects of typicality, a follow-up experiment shows a more positive effect of partitioning on preference for typical surcharges than

for atypical surcharges, and an eye-tracking experiment offers insight into the underlying mechanism by showing that people pay more attention to atypical surcharges than to typical surcharges.

Different pricing strategies in the same market suggest different beliefs about the efficacy of partitioning prices on consumers' preferences. The second essay in this dissertation explores the impact of two countervailing theoretical influences that may predict how the numerical magnitude of surcharges can affect preferences. "Base price anchoring" suggests that as the magnitude of the surcharge increases (holding the total price constant), consumers may anchor on a lower base price, leading them to evaluate partitioned prices more favorably. In contrast, "surcharge salience" suggests that as the magnitude of the surcharge increases, attention to the surcharge increases, and evaluations of partitioned prices decrease. An analysis of eBay auction data reveals support for the influence of base price anchoring, and a follow-up experiment suggests that this mechanism dominates at lower levels of surcharge magnitude whereas surcharge salience dominates at higher levels of surcharge magnitude. Finally, an eye-tracking study demonstrates the influence of surcharge salience on preference and attention.

A MULTI-METHOD EXAMINATION OF PARTITIONED PRICING.

By

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Chapter 1: Introduction

Partitioned pricing occurs when sellers divide the price of a product or service into two or more mandatory components (Morwitz, Greenleaf, and Johnson 1998). This dissertation includes two essays that investigate the relationship between price partitioning and dependent variables such as demand, preference, and attention.

The first essay reviews the existing literature on partitioned pricing by using meta-analytic techniques. Seventeen years have passed since the first paper on partitioned pricing, and this essay proposes a theoretical framework to examine extant and new moderators of partitioned pricing, classifying moderators based on the source of their impact as *presentational*, *evaluative*, or *attentional*: varying the presentation, thereby affecting price recall biases and demand; affecting surcharge evaluations as more or less acceptable, thereby influencing demand; or affecting the attention paid to surcharges, thereby influencing price recall biases and demand. The essay then uses meta-analytic techniques to summarize the findings from 43 published and unpublished studies in 27 papers, with a focus on the previously mentioned moderators at the aggregate level. A follow-up experiment probes deeper into the source of the effect behind the moderating role of one of the new moderators we identify – typicality of partitioning the surcharge – and an eye-tracking experiment offers insight into the underlying mechanism by showing that people pay more attention to atypical surcharges than to typical surcharges.

Why do some sellers on eBay charge extra for shipping whereas others include shipping in their prices? Different pricing strategies in the same market suggest different beliefs about the efficacy of partitioning prices on consumers' preferences. The second essay explores the impact of two countervailing theoretical influences that may predict how the numerical magnitude of surcharges can affect preferences. "Base price anchoring" suggests that as the magnitude of the surcharge increases (holding the total price constant), consumers may anchor on a lower base price, leading them to evaluate partitioned prices more favorably. In contrast, "surcharge salience" suggests that as the magnitude of the surcharge increases, attention to the surcharge also increases, potentially decreasing evaluations of partitioned prices. This essay uses multiple methods to investigate the relative importance of these competing influences on evaluations of partitioned prices, and to identify conditions under which each influence dominates. In addition to lab experiments, we use eye-tracking to test the effects on attention and eBay data to test the external validity of the predictions.

Together, these essays identify fruitful areas for future research in the field of partitioned pricing and provide some evidence for the role of additional moderators – such as typicality of partitioning the surcharge and presence of the total price – that have not yet been explored in the literature. The use of a meta-analysis allows for a more holistic perspective on 17 years of research in the field of partitioned pricing and the subsequent use of multiple methods provides convergent evidence for the proposed effects under study.

Chapter 2: When Do Partitioned Prices Increase Demand? Meta-Analytic and Experimental Evidence

As service providers seek innovative ways to increase their bottom-line, consumers have seen a host of surcharges for services that they previously took for granted (Mayer 2002). For example, mandatory surcharges add an average of 17% to consumers' wireless bills (Goldman 2013). Surcharges and fees are also common in the airline and hotel industries (Carey 2011; Hobica 2013). Although these fees appear to help recoup some operating costs in the short run, negative consumer reactions may limit revenue, so it is not clear whether adding these fees – rather than simply increasing prices – improves firm outcomes. Considering that the U. S. airline, wireless telecommunications, and lodging industries have annual revenues of 180 billion (First Research 2014), 205 billion (Statista 2014) and 163 billion dollars (American Hotel & Lodging Association 2014) respectively, differences in consumers' reactions to small surcharges can have a relatively large economic impact.

Partitioned pricing (Morwitz, Greenleaf, and Johnson 1998) offers a relevant framework within which to study the impact of mandatory surcharges on consumer demand. A partitioned price is defined as a price presentation format in which the total price of a product or service is presented in two or more mandatory parts – a base price, which is associated with the focal component, and one or more surcharges, which are associated with secondary components. Notably, even when the total price of a product or service is held constant, the format in which the price is presented (all-

inclusive or partitioned) influences consumers' evaluations of offers and purchase intentions (e.g., Morwitz, Greenleaf, and Johnson 1998), thereby violating the economic principle of descriptive invariance (Tversky, Sattath, and Slovic 1988).

Although the initial research on partitioned pricing demonstrated that surcharges were beneficial to marketers, seventeen years of follow-up research has found both beneficial and detrimental effects of partitioned pricing. To more clearly understand these effects, this paper uses meta-analytic techniques to summarize the findings from 27 papers that empirically test the effect of partitioned pricing on demand, with a focus on moderators at the aggregate level. We propose a theoretical framework to investigate moderators that have already been explored in extant research (surcharge format, surcharge magnitude, surcharge benefit, seller reputation, and price level) as well as new moderators that have not yet been explicitly explored (presence of the total price, surcharge controllability, and typicality of partitioning the surcharge). We classify moderators based on the source of their impact as *presentational*, *evaluative*, or *attentional*: varying the presentation, thereby affecting price recall biases and demand; affecting surcharge evaluations as more or less acceptable, thereby affecting demand; and affecting the attention paid to surcharges, thereby affecting price recall biases and demand.

After identifying multiple moderators from the meta-analysis, we follow up with two experimental studies that explicitly manipulate typicality of partitioning to demonstrate its effects on demand and eye-tracked attention to the surcharge. The use of a meta-analysis allows for a holistic perspective on 17 years of research, and the

subsequent use of experimental studies provides further evidence for one of the new moderators that we identify.

How Does Partitioned Pricing Affect Consumer Decision-Making?

Conceptual Background

The first paper on partitioned pricing was published by Morwitz, Greenleaf, and Johnson in 1998. Since then, over 45 published and unpublished papers have investigated the impact of partitioned pricing on outcomes such as purchase intention, attitude, etc. The initial research focused on price recall biases (e.g., Morwitz, Greenleaf, and Johnson 1998; Lee and Han 2002), which led consumers to anchor on base prices and under-process surcharges, resulting in lower recalled prices and more favorable evaluations when prices were presented in a partitioned format than in an all-inclusive format. However, recent research provides more mixed evidence, with researchers successfully identifying conditions in which all-inclusive prices lead to more favorable evaluations than partitioned prices (e.g., Bertini and Wathieu 2008; Burman and Biswas 2007). Much of the research in this area has focused on moderators that determine when partitioned prices are evaluated more or less favorably than all-inclusive prices.

To holistically analyze the effects of surcharges, we conduct a meta-analysis of results from published and unpublished papers that experimentally examine the effects of partitioned pricing. In addition, we examine moderators of the effect. By combining papers that have shown similar and opposing findings for the same moderators (e.g., surcharge magnitude), we control for non-manipulated factors that

may cause divergent effects. In addition, we examine some previously unexplored moderators of theoretical interest, which allows us to extend the literature.

Presentational Moderators

These moderators relate to the way in which the pricing information is presented, and capture differences in the presentation format of the surcharge as well as of the overall total price of a transaction. Based on how the pricing information is presented, these moderators affect the price recall bias and thereby affect demand.

Surcharge format. If the effect of partitioned pricing is due to a cognitive bias, the effect should be stronger when surcharge processing is more difficult. Accordingly, participants recall a lower total price when surcharges are presented in a percentage rather than dollar format (Blanthorne and Roberts 2011; Kim 2006; Morwitz, Greenleaf, and Johnson 1998). Previous work has also shown that percentage surcharges lead to higher deal evaluations (Wang and Lynn 2010), price satisfaction (Xia and Monroe 2004), and purchase intentions (Blanthorne and Roberts 2011; Kim 2006; Xia and Monroe 2004). Integrating these findings, we propose H1 as follows:

H1: Partitioned pricing will have a more positive effect on demand for percentage surcharges than for currency surcharges.

New moderator: Presence of the total price. Although previous research has included studies with the total price present (e.g., Cheema 2008; Hamilton and Srivastava 2008) and absent (e.g., Lee and Han 2002; Morwitz, Greenleaf, and Johnson 1998), there is limited direct research on this effect. For example, Carlson and Weathers (2008) conducted separate experiments with the total price absent and

present rather than manipulating presence of the total price in a single experiment. Xia and Monroe (2004) found that partitioned pricing with the total price present raises purchase intention compared to all-inclusive pricing, but the authors did not explicitly contrast partitioned pricing with and without the total price. When the total price is present, the impact of partitioning may reduce (Morwitz et al. 2009) because consumers may not anchor and adjust as proposed by Morwitz, Greenleaf, and Johnson (1998) as there is no uncertainty and heuristics apply only under conditions of uncertainty (Tversky and Kahneman 1974). Therefore, when the total price is present, individuals may be less likely to underestimate the total price, attenuating the positive effect of partitioned pricing and leading to H2.

H2: The presence of the total price will lead to a more negative effect of partitioned pricing on demand relative to the absence of the total price.

Evaluative Moderators

These moderators relate to the way in which the surcharge information is evaluated, and capture differences in judgements about how much value the associated components are deemed to provide as well as how acceptable the surcharge information is deemed to be. Based on the corresponding evaluative judgments, these moderators affect demand.

Surcharge benefit. Hamilton and Srivastava (2008) found that people are more sensitive to the price of low benefit components. For example, participants preferred offers in which a higher proportion of the total price was allocated to the focal product than to shipping or labor. Similarly, Bertini and Wathieu (2008) show that partitioned prices lead to more favorable evaluations when the partitioned component

offers high rather than low benefit for the same price, leading to perception of a good rather than bad deal. In a partitioned price, the focal component usually offers higher benefit than the secondary component, but across the studies that we include in the meta-analysis, the secondary component benefit varies, so we propose the following hypothesis:

H3: Partitioned pricing will have a more positive effect on demand for high surcharge benefit relative to low surcharge benefit.

Seller reputation. Consumers who buy from low-reputation sellers pay more attention to surcharges than consumers who buy from high-reputation sellers. Consistent with this reasoning, Cheema (2008) found a negative effect of partitioning on cell phone service sign-up likelihood for low-reputation sellers and no effect for high-reputation sellers, and Pan et al. (2013) found similar effects on purchase intention. Similarly, Carlson and Weathers (2008) found that perceived price fairness and purchase intentions were higher when more trustworthy sellers (vs. less trustworthy sellers) partitioned prices, but they did not compare partitioned prices with all-inclusive prices. Combining these findings, we propose the following hypothesis:

H4: Partitioned pricing will have a more positive effect on demand for high seller reputation relative to low seller reputation.

New moderator: Surcharge controllability. Morwitz et al. (2009) suggest that consumer attributions about who is responsible for a surcharge – firms vs. other sources – may play a role in consumers' reactions to partitioned pricing. Folkes (1988) suggests that consumers may perceive price increases due to reasons that are

uncontrollable by a firm as more legitimate than those due to reasons that are controllable by the firm (e.g., desire for greater profits; Campbell 1999). Thus, consumers may react more favorably to the partitioning of components that they believe are uncontrollable by the firm (e.g., taxes listed separately by airlines and wireless providers).

Indeed, Bambauer-Sachse and Mangold (2010) find that marketers' responsibility for surcharges increases the negative effects of partitioned pricing. Similar research suggests that consumers react negatively to shipping charges when they believe that these are presented for adding to marketers' profits (Schindler, Morrin, and Bechwati 2005). These findings suggest that when consumers encounter highly controllable surcharges, they might attribute partitioned pricing to firms' profit-making motives, resulting in more unfavorable reactions than when they encounter less controllable surcharges, and leading to H5.

H5: Partitioned pricing will have a more negative effect on demand for surcharges with high controllability relative to surcharges with low controllability.

Attentional Moderators

These moderators relate to the amount of attention that is paid to the surcharge, and capture differences in attention due to the salience of the pricing information because of factors such as numerical magnitude of the pricing information or the inconsistency of the pricing information with prior expectations. Based on the attention captured by the surcharge, these moderators affect price recall biases and thereby affect demand. Attentional moderators may also affect surcharge

evaluations due to fairness perceptions, and thereby affect demand.

Surcharge magnitude. Prior research suggests that the size of the surcharge, often referred to as the "surcharge magnitude," may influence demand when consumers encounter a partitioned price. Morwitz, Greenleaf, and Johnson (1998) suggest that consumers anchor on base prices and insufficiently adjust for surcharges. For a given total price (base price plus surcharge), higher surcharge magnitude (SM) should reduce base price anchors and price estimates, and raise demand. Consistent with this, authors (e.g., Hossain & Morgan 2006) have found positive effects of shipping fee on demand. On the other hand, higher SM may also raise surcharge salience, lead to more complete processing, and attenuate recall biases. Additionally, price unfairness perceptions (e.g., Campbell 1999) may increase, leading to more negative effects (e.g., Cheema 2008; Xia and Monroe 2004). Therefore, partitioned pricing may have a positive effect when SM is low, but a negative effect when SM is high (Sheng, Bao, and Pan 2007).

Although the partitioned pricing literature has used absolute surcharge magnitude (ASM) and relative surcharge magnitude (RSM; ASM as a percentage of base price), it does not explicitly distinguish between them except in Chatterjee (2010). In our meta-analysis, base prices vary widely, making the ASM-RSM distinction relevant, so we include both, and propose the following competing hypotheses for their positive vs. negative moderating roles:

H6a: As ASM increases, partitioned pricing will have a more positive effect on demand.

H6b: As ASM increases, partitioned pricing will have a more negative effect on demand.

H7a: As RSM increases, partitioned pricing will have a more positive effect on demand.

H7b: As RSM increases, partitioned pricing will have a more negative effect on demand.

Price level. Consistent with the salience-based effects of RSM, Roggeveen, Xia, and Monroe (2006) suggested that partitioning will be more effective at higher price levels because the same ASM will be less salient, and found support for their prediction. Along similar lines, Chatterjee (2010) found that a higher price level led to a less negative effect of partitioning on perceived deal value and purchase intention when the surcharge was relatively high. Building on these findings, we propose the following hypothesis:

H8: As the price level increases, partitioned pricing will have a more positive effect on demand.

New moderator: Typicality of partitioning. Norms guide consumers' expectations for partitioned components (Hamilton and Srivastava 2008; Redden, Fitzsimons, and Williams 2007). For example, in Hamilton and Srivastava's (2008) second study, participants were less likely to choose a supplier offering free labor (relative to another supplier who charged 43% of the total price for labor) when they believed that free labor was less common. This suggests that descriptive norms influence consumers' responses to partitioned prices.

Research on categorization (e.g., Rosch 1973; Rosch, Simpson, and Miller

1976) has found that instances of a natural category can be judged as more or less typical (good or bad examples) of the category. Consumers "perceive members of most naturally occurring categories as varying in their degree of typicality, or representativeness, of those categories," (Boush and Loken 1991), and this extends to product categories (Loken and Ward 1990). We define the typicality of partitioning a surcharge as the degree to which partitioning a surcharge is the norm for a particular product category. When partitioning is the norm, typicality is high and when it is not the norm, typicality is low. When typicality is low (in other words, when partitioning is atypical), it may increase attention to the surcharge due to the greater salience of inconsistent information (Lynch and Srull 1982). However, when typicality is high (in other words, when partitioning is typical), it should not increase attention to the surcharge. More attention to the surcharge makes price recall biases less likely to occur, attenuating the effect of partitioning for atypically partitioned surcharges. Atypical partitioning may also violate consumers' injunctive norms (Cialdini, Reno, and Kallgren 1990) and lead to perceived unfairness, again attenuating the positive effect of partitioning. Therefore, we propose that:

H9: Partitioned pricing will have a more positive effect on demand for typical surcharges relative to atypical surcharges.

Extant research has also examined the number of surcharges (e.g., Xia and Monroe 2004), need for cognition (e.g., Cheema 2008), surcharge fairness (Sheng, Bao, and Pan 2007), surcharge reasonableness (e.g., Burman and Biswas 2007), recall-driven vs. stimulus-driven information (e.g., Kim 2006), construal level (Albinsson, Burman, and Das 2010), and hedonic vs. utilitarian category (e.g., Baghi,

Rubaltelli, and Tedeschi 2010). Our meta-analysis only considered factors that had been manipulated in at least two papers included in the analysis (as in Krishna et al. 2002; to ensure that inferences were not based on a single paper), factors that we had specific hypotheses about, or factors that could be coded directly from the papers. Number of surcharges, need for cognition, recall- vs. stimulus-based information, construal level, and hedonic vs. utilitarian category were manipulated in only one paper. Moreover, because prior work has operationalized surcharge fairness (Sheng, Bao, and Pan 2007) and reasonableness (Burman and Biswas 2007) by manipulating SM, we felt that ASM and RSM sufficiently captured these constructs and we did not include separate variables to capture them.

In the next section, we describe the procedure that we employed for the meta-analysis.

Meta-Analysis

Data and Methodology

Identifying articles to include. As a starting point, the Business Source database was searched in November 2013 to identify relevant articles in the *Journal of Marketing*, *Journal of Marketing Research*, *Journal of Consumer Research*, and *Marketing Science*. We then did a cited reference search for each of the identified journal articles to locate additional papers in additional marketing/consumer journals (e.g., *Journal of Consumer Psychology*). Further, we searched the Association of Consumer Research (ACR) and American Marketing Association (AMA) conference proceedings as well as Google Scholar and SSRN as of November 2013. In addition, we referred to a working paper by Morwitz et al. (2009) in which the authors

reviewed research on partitioned pricing. We also sent out a call for published and unpublished studies in January 2014 on the AMA, ACR, and Society for Judgment and Decision Making (SJDM) mailing lists. Additionally, we directly contacted authors who had previously published in the area to see if they had unpublished work and for stimuli details. Finally, in June 2014, we checked if any unpublished papers had been published and updated our analysis accordingly.

We initially reviewed a super-set of over 45 published and working papers (details available on request). Of these, some used partitioned prices, but did not contrast them with all-inclusive prices (e.g., Estelami 2003), so it was not possible to calculate the effect size for partitioned pricing, leaving 28 usable papers. Of these 28 papers, one paper did not have complete information about the stimuli, so we could not include this paper in our analysis, resulting in 27 papers that we could include. Of the 27 papers, some report multiple studies, so 43 studies could be included in our meta-analysis. If the authors made multiple comparisons between partitioned and all-inclusive prices (at different levels of potential moderators), we included effect sizes for each comparison as separate observations. When authors made multiple comparisons involving the same baseline (all-inclusive) condition (e.g., Xia and Monroe 2004), we included effect sizes from all comparisons, but used a control variable to identify such cases. When studies had multiple dependent measures, we included them as suggested by Bijmolt and Peters (2001), leading to 149 observations across the 43 studies, which is comparable to recent meta-analyses of experimental studies (63 observations from 50 studies in Scheibehenne, Greifeneder, and Todd (2010), 132 observations from 76 articles in van Laer et al. (2014), and 99

observations from 53 studies in Chernev, Böckenholt, and Goodman (2014)). Using a hierarchical linear model (HLM), we controlled for correlations between observations, but we also checked for robustness by using an alternative model that included only one measure per combination of moderator levels. Table 1 contains the details of the papers and studies that we could include in the meta-analysis.

TABLE 1

META-ANALYSIS: PAPERS AND STUDIES USED, ALONG WITH NUMBER OF OBSERVATIONS PER STUDY

Authors	Year	Study	# of Observations
Albinsson, Burman, and Das	2010	1	4
Albinsson, Burman, and Das	2010	2	4
Baghi, Rubaltelli, and Tedeschi	2010	1	4
Baghi, Rubaltelli, and Tedeschi	2010	2	4
Bambauer-Sachse and Mangold	2010	1	2
Bertini and Wathieu	2008	1	4
Bertini and Wathieu	2008	3	4
Blanthorne and Roberts	2011	1	8
Burman and Biswas	2007	1	8
Burman and Biswas	2007	2	8
Burman and Biswas	2007	3	8
Burman and Biswas	2007	4	8
Chakravarti, Krish, Paul, and Srivastava	2002	1	1
Chakravarti, Krish, Paul, and Srivastava	2002	2	1
Chatterjee	2010	1	8
Cheema	2008	2	2
de Faria	2010	Part A	4
Hamilton and Srivastava	2008	2	2
Hossain and Morgan	2006	1	6
Kim	2006	1	4
Kim	2006	2	3

Authors	Year	Study	# of Observations
Lee and Han	2002	1	5
Lee, Choi, and Li	2014	2	2
Lee, Choi, and Li	2014	3	4
Lee, Choi, and Li	2014	4	4
Love	2012	1	2
Love	2012	2	2
Love	2012	3	2
Lynn and Wang	2013	1	2
Morwitz, Greenleaf, and Johnson	1998	2	1
Muthitacharoen, Zhang, and Gillenson	2013	1	2
Pan, Kuo, Pan, and Tu	2013	2	2
Redden, Fitzsimons, and Williams	2007	1	3
Redden, Fitzsimons, and Williams	2007	2	3
Sahay, Mukherjee, and Diwani	2014	1	1
Sahay, Mukherjee, and Diwani	2014	2	1
Schindler, Morrin, and Bechwati	2005	1	1
Sheng, Bao, and Pan	2007	1	3
Sheng, Bao, and Pan	2007	2	2
Sheng, Bao, and Pan	2007	3	4
Völckner, Rühle, and Spann	2012	1	1
Xia and Monroe	2004	1	4
Yao and Zhang	2012	1	1
Total	27	43	149

Some studies that we included reported statistics without the degrees of freedom so, in such cases, we assumed that the cell sizes were the same for all cells of a factorial design when cell sizes were not provided. For example, Study 2 in Lee, Choi, and Lee (2014) had data from 99 participants as part of a 2 (partitioned vs. all-inclusive) × 2 (global vs. local processing) design. We assumed the cell sizes for the global and local processing conditions to be 49.5 each.

Coding of moderators. After identifying the studies to be included, we coded the manipulated and non-manipulated moderator values based on information

provided in the studies. Some moderators could be coded directly from the papers; others required subjective judgment and a team of independent judges coded them.

We contrast-coded moderators such as surcharge format (currency vs. percentage), seller reputation (high vs. low), and total price (present vs. absent) even if they were not manipulated, so that we could test their effects across studies. Although price level has been explored as a categorical factor, we coded this as a continuous variable for greater inferential power. Similarly, we coded ASM and RSM as continuous variables. ASM (and RSM) details were not available for two studies, so the final analysis included 149 observations from 43 studies in 27 papers.

Two independent judges who were blind to the hypotheses coded surcharge benefit, surcharge controllability, and typicality of partitioning (reliability indices = .85, .78, and .81; Perreault and Leigh 1989). Judges coded these variables because they required subjective judgment, unlike other moderators that could be objectively coded. A third independent judge's coding was used to resolve inconsistencies. Due to research assistant turnover, only one judge coded data for some observations, but reliability was tested against the first author's independent coding for these observations (reliability indices = .86, .91, and .91; Perreault and Leigh 1989).

Coding of control variables. Following published meta-analyses (e.g., Krishna et al. 2002; Scheibehenne, Greifeneder, and Todd 2010), we also included several control variables. Authors used different dependent measures to capture the effects of partitioned pricing on demand, such as Purchase Intention (or a consistent scale-item measure such as Preference, Offer Attractiveness, Liking of Offer, or Attitude), Choice, WTP, Recalled Cost, and Sensitivity of Demand. However, we did not include

observations where authors studied the effect of partitioned pricing on dependent measures such as surcharge fairness or attention to the surcharge as these measures relate to the surcharge rather than to the overall offer. We adapted procedures used in a meta-analysis by Krishna et al. (2002), and employed a contrast-coded variable to capture whether the meta-analytic results were sensitive to the type of dependent measure used (scale vs. non-scale). In line with Krishna et al. (2002), we employed another contrast-coded variable to test whether our results were sensitive to using single-item or multiple-item scales for scale-item measures. To control for study complexity, we also included the number of variables manipulated as in Krishna et al. (2002). Additionally, in line with the meta-analysis by Scheibehenne, Greifeneder, and Todd (2010), we included control variables for the year of publication, whether the paper was published in a journal, and whether the study was conducted in the US. Finally, we included control variables for within-subject effect sizes and multiple observations with the same baseline (all-inclusive) condition. Table 2 contains the details of the coding schemes for the moderators and control variables and Table 3 contains the correlations between these independent variables.

TABLE 2

META-ANALYSIS: LEVELS, FREQUENCY, CODING, AND VARIANCE

DETAILS OF INDEPENDENT VARIABLES

Independent Variables	Variable Levels	Frequency	Definition	Papers With Variance Across Independent Variable
MODERATORS				
Surcharge format			How the surcharge was presented	Coded for all papers
	Percentage (1)	13	Surcharge was presented as percentage	
	Currency (-1)	131	Surcharge was presented as currency	
	None (0)	5	Both levels included in comparison	
Presence of total price			Whether the total price is also provided or not	Coded for all papers
	Present (1)	14	Total price for the product is explicitly presented	
	Absent (-1)	135	Total price for the product is not explicitly presented	
Surcharge benefit			Whether the secondary component provides tangible benefits to consumers	Coded for all papers
	High (1)	22	e.g., Surge Protector	
	Low (-1)	120	e.g., Taxes	
	None (0)	7	No information provided regarding nature of secondary component, e.g., surcharge; or contrast includes high and low benefit components; or unclear	

Independent Variables	Variable Levels	Frequency	Definition	Papers With Variance Across Independent Variable
Seller reputation			Reputation of the seller	
	High (1)	2	Seller reputation is high	Cheema (2008), Pan et al. (2013)
	Low (-1)	8	Seller reputation is low	Cheema (2008), Hossain and Morgan (2006), Pan et al. (2013)
	None (0)	139	No information provided	
Surcharge controllability			Whether the secondary component is controllable by the firm providing the product/service	Coded for all papers
	High (1)	113	e.g., processing fees	
	Low (-1)	7	e.g., taxes	
	None (0)	29	No information provided regarding nature of secondary component, e.g., surcharge; or contrast includes controllable and uncontrollable components; or unclear	
ASM	Continuous	149	Absolute magnitude of the first surcharge	Coded for all papers
RSM	Continuous	149	Relative magnitude of the first surcharge as a percentage of the base price	Coded for all papers
Price level	Continuous	149	Total price level for the partitioned condition	Coded for all papers

Independent Variables	Variable Levels	Frequency	Definition	Papers With Variance Across Independent Variable
Typicality of partitioning			Whether the secondary component is typically partitioned or not	Coded for all papers
	High (1)	116	e.g., Shipping	
	Low (-1)	18	e.g., In-flight entertainment and meal service	
	None (0)	15	No information provided regarding nature of secondary component, e.g., surcharge; or contrast includes high and low typicality components; or unclear	
CONTROL VARIABLES			To account for study idiosyncrasies	
Common control				Varied within and across papers
	Yes (1)	26	The control condition was used for multiple comparisons	
	No (-1)	123	The control condition was not used for multiple comparisons	
Type of dependent variable				Varied within and across papers
	Scale-item (1)	120	The DV was a scale-item measure (e.g., Purchase Intention, Offer Evaluation, Attitude)	
	Others (-1)	29	The DV was not a scale-item (e.g., Choice, WTP, Recalled Cost)	

Independent Variables	Variable Levels	Frequency	Definition	Papers With Variance Across Independent Variable
Multiple scale-items				Varied within and across papers
	Yes (1)	90	The scale used to measure the DV had multiple scale-items	
	No (-1)	30	The scale used to measure the DV had one scale-item	
	None (0)	29	DV is not a scale-item	
Number of variables manipulated	Continuous	149	The number of independent variables manipulated by the authors in each study	Varied within and across papers
Published				Varied across papers
	Yes (1)	125	The paper was published in a journal	
	No (-1)	24	The paper was not published in a journal	
Study outside US				Varied across papers
	Yes (1)	24	The study was run outside the USA	
	No (-1)	125	The study was run in the USA	
Within-subject				Varied within and across papers
	Yes (1)	16	The effect was within-subject	
	No (-1)	133	The effect was between subjects	
Year of study	Continuous	149	The year in which the results were reported; 1998 was set as zero	Varied across papers

TABLE 3

META-ANALYSIS: CORRELATIONS BETWEEN INDEPENDENT VARIABLES († $p < .01$, * $p < .05$)

	ASM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
(1) Benefit	.22†															
(2) Controll-ability	-.30†	.03														
(3) Format	.34†	.25†	-.28†													
(4) Price level	.76†	.04	-.32†	.35†												
(5) RSM	-.02	.05	.10	-.10	-.30†											
(6) Seller reputation	.13	.08	-.08	.06	.13	-.29†										
(7) Total price present	-.05	-.03	-.17*	.04	.01	.14	.05									
(8) Typicality	-.09	-.38†	-.03	.01	.03	.04	-.08	.09								
(9) Common control	.04	.08	-.15	.20*	.05	-.04	.07	.09	.13							
(10) DV type	-.15	-.21†	-.04	-.03	-.04	-.27†	.32†	.04	.08	-.04						
(11) Multiple scale items	.09	-.29†	-.04	-.06	.01	.02	.08	-.05	.47†	-.14	.25†					
(12) No. of variables manipulated	.24†	.12	-.12	.37†	.28†	.03	-.12	-.07	-.04	.11	-.21†	-.10				
(13) Published	.00	-.40†	.30†	-.22†	-.14	.08	-.07	-.36†	-.06	-.38†	.06	.36†	.00			
(14) Study location	.01	-.03	-.20*	.16	.10	-.13	.07	.36†	-.40†	-.01	.12	-.27†	.12	-.21*		
(15) Within-subject	.28†	.11	-.10	.25†	.23†	.21†	.06	-.11	-.18*	-.16	.01	.18*	.18*	.15	.14	
(16) Year	-.16*	-.02	.03	-.29†	-.01	-.07	.13	.21†	-.04	.07	.02	-.09	-.07	-.21†	.08	-.28†

Procedures. For the meta-analysis, we used an HLM (e.g., Bijmolt, van Heerde, and Pieters 2005) that was estimated by restricted maximum likelihood estimation with the lmerTest.lmer function in R. Different studies provided statistics in the form of t-statistics, F-statistics, z-scores, r effect sizes, *p*-values, η^2_p statistics and χ^2 statistics. To standardize the effects, we transformed these statistics into our dependent measure, Cohen's d (as in Scheibehenne, Greifeneder, and Todd (2010)), a standardized measure of the mean differences between the partitioned and all-inclusive conditions, with the difference scaled by the pooled standard deviation (Cohen 1977). We chose Cohen's d because ω^2 and η^2 lose effect direction information due to squaring (Rosenthal and DiMatteo 2001). Pearson r is also used in meta-analyses, but is more suited to testing the effect of a continuous variable on another continuous variable. Although we assumed equal cell sizes when sizes were not stated, computing Cohen's d required us to round some cell sizes to the nearest integer. We then used the correction procedure specified by Hedges and Olkin (1985) to correct for small-sample bias. Finally, considering the range of sample sizes, more weight should be given to effect size estimates from larger samples due to greater precision (Rao and Monroe 1989), so we weighted the effect sizes by their inverse variance (see Hedges and Olkin 1985, p. 49), for which we again assumed equal cell sizes, leading to a weighted, small-sample bias-corrected Cohen's d as our dependent measure.

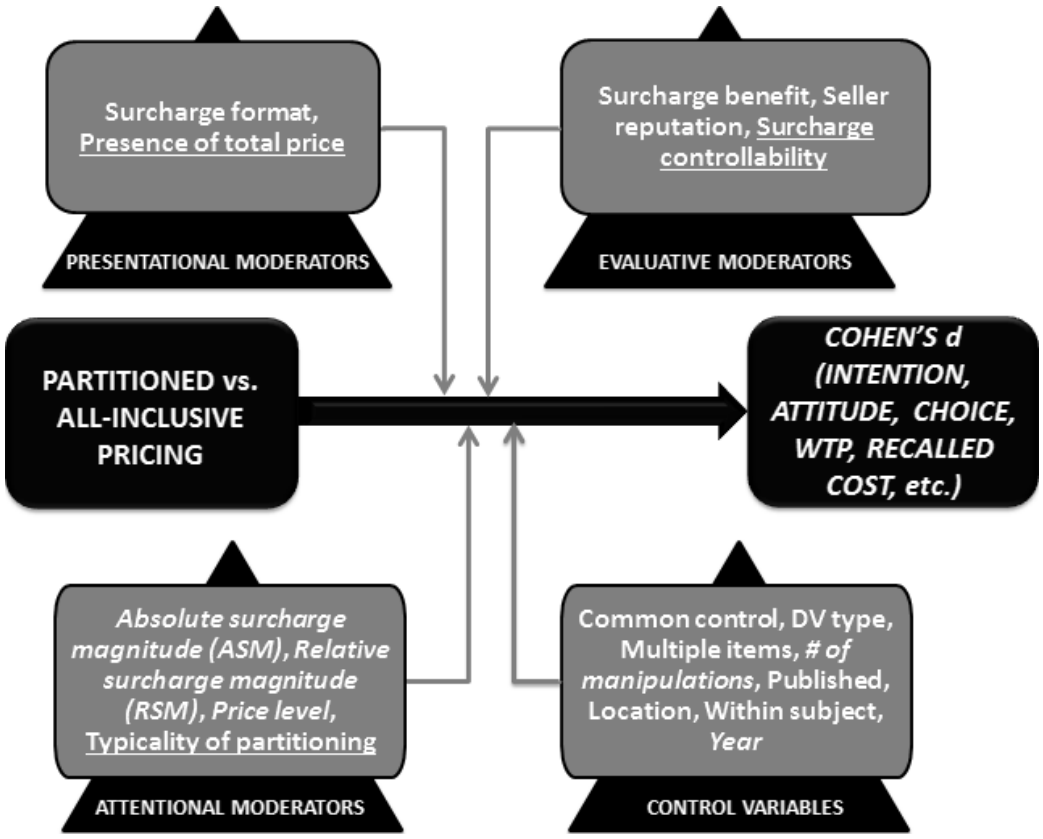
Meta-analyses may involve data from between-subjects and within-subject experimental designs. Effect size estimates depend on the type of experimental design because a within-subject design produces correlated measures. Ignoring this

difference can lead to inaccurate effect size estimates (Dunlap et al. 1996), so we calculate effect sizes differently for between-subjects data and within-subject data, and the control variable that we used for between- vs. within-subjects designs should capture any residual effects. Figure 1 summarizes our meta-analysis framework, and Appendices 1 and 2 contain the data for the meta-analysis.

FIGURE 1

META-ANALYSIS: CONCEPTUAL FRAMEWORK

Note: Underlined text denotes new theoretical moderators (Presence of total price, Surcharge controllability, and Typicality of partitioning) and *italics* denote continuous variables (*Cohen's d*, *ASM*, *RSM*, *Price level*, *# of manipulations*, and *Year*).



Robustness checks and additional analyses. We ran a series of checks to test the robustness of our results to various decisions that we made, and we also conducted some additional analyses. First, we used an alternative mixed-effects model (e.g., Viechtbauer 2010), which assumed independent observations (within-observation variance was calculated from Cohen's d and sample size as in Hedges and Olkin 1985). Second, we estimated the same mixed-effects model with only one dependent measure for each combination of moderator levels in a study, leading to 90 independent observations.

Third, to test for higher-order effects, we noted the significant theoretical factors (benefit, price level, presence of the total price, and typicality) in our original HLM. We then estimated an interaction HLM by adding the two-way interactions between benefit, price level, presence of the total price, and typicality to the original HLM.

Fourth, we estimated an HLM including the theoretical factors but excluding the control variables. Fifth, because there is no direct test for multicollinearity in HLMs (Eisend 2014), we identified factors that were correlated with $|r|s \geq .5$ (as in Eisend 2014; ASM and price level, $r = .76$) and estimated HLMs with one of the variables removed. Sixth, although ASM and RSM were not correlated in the data ($r = -.02$, $p > .78$), these constructs are conceptually related, so we estimated an HLM with only ASM (but not RSM) included in addition to the other variables. Finally, we estimated the original HLM with non-weighted Cohen's d as the dependent measure.

Results

Overall effect of partitioned pricing. Our initial HLM correctly predicted the direction of 70% of the effects, but the mean effect size of partitioned pricing was .08 ($p > .10$), which is not significantly different from zero. This could be either because the true effect size for each observation is not significantly different from zero or because the true effect sizes for different observations have opposite signs and their influences cancel each other out in the estimation of the mean effect size. Considering the number of studies that have shown significant positive and negative effects of partitioned pricing, it is clear that the latter explanation is true. Both the Q-statistic, which tests for effect-size heterogeneity and follows a chi-square distribution (Cochran 1954; $Q(148) = 909.1$, $p < .001$), and the I^2 statistic, which denotes the amount of variance due to effect-size heterogeneity (Huedo-Medina et al. 2006; $I^2 = 83.72\%$; high heterogeneity), confirm this conclusion, so we examine the effects of moderators for more insight.

Effects of moderators. Table 4 lists the predicted effects from extant literature and our hypotheses as well as coefficient estimates, standard errors, t-statistics, and *p*-values.

TABLE 4

META-ANALYSIS: EFFECTS OF INDEPENDENT VARIABLES ON DEMAND

Note: **Bold text** denotes significant results at $p < .10$.

	Predicted effect	β_j	$SE(\beta_j)$	*t*-statistic	*p*-value
Intercept	+	0.08	0.05	1.67	0.1
Control Variables					
Common Control	?	0.004	0.07	0.05	0.96
Dependent Variable Type	**?**	**-0.22**	**0.05**	**-4.8**	**< .0001**
Multiple Scale Items	?	-0.08	0.07	-1.14	0.26
No. of Variables Manipulated	?	-0.08	0.05	-1.6	0.11
Published	+	0.11	0.09	1.19	0.24
Study Outside US	?	0.06	0.09	0.71	0.48
Within-Subject	?	-0.13	0.1	-1.32	0.19
Year of Study	**–**	**-0.05**	**0.02**	**-2.7**	**0.01**
Theoretical Moderators					
Format	+	0.01	0.1	0.13	0.9
Total Price Present	**–**	**-0.16**	**0.09**	**-1.68**	**0.097**
Benefit	**+**	**0.28**	**0.09**	**3.12**	**0.002**
Seller Reputation	+	0.28	0.2	1.4	0.17
Controllability	–	-0.1	0.1	-0.97	0.34
ASM	?	0.001	0	0.31	0.76
RSM	?	-0.001	0	-0.33	0.74
Price Level	**+**	**0.0004**	**0**	**1.72**	**0.09**
Typicality	**+**	**0.29**	**0.1**	**2.91**	**0.005**

Among the control variables, the type of dependent measure ($\beta = -.22$, $p < .001$) and the year of publication ($\beta = -.05$, $p < .01$) are significant (other *p*s > .11), suggesting that partitioned pricing has a less favorable effect on demand when scale measures are used and in studies conducted more recently. The less favorable effect of partitioning when scale measures are used might be because non-scale measures such as choice, WTP, recalled cost, and demand sensitivity allow for more variance, and this result is

robust across all our checks. The effect of year is consistent with Scheibehenne, Greifeneder and Todd (2010) and the Proteus phenomenon proposed by Ioannidis and Trikalinos (2005), and this result is robust in all but one of our checks.

Examining the *presentational* moderators, supporting H2, the coefficient for presence of the total price is negative (β = -.16, p = .097), suggesting that partitioning has a less favorable effect on demand when the total price is present, perhaps because any price recall biases are attenuated. Based on the contrast coding scheme that we used, the effect size difference when the total price is present vs. when the total price is absent is .32 Cohen's d units, which corresponds to 8% of the Cohen's d range (-2, 2). Based on Cohen's guidelines for interpreting d (.2 = small, .5 = moderate, and .8 = large; Cohen 1992), this is between a small and a moderate effect size difference, and this result is significant in five of the eight robustness checks.

Turning to the *evaluative* moderators, supporting H3, the coefficient for surcharge benefit is positive (β = .28, p = .002), suggesting that high benefit surcharges increase evaluations of partitioned pricing relative to low benefit surcharges. This is consistent with previous work showing that partitioned prices result in more favorable evaluations when the partitioned component offers a high rather than a low level of benefit (Hamilton and Srivastava 2008), leading to perception of a good deal rather than a bad deal (Bertini and Wathieu 2008). Due to the contrast coding scheme that we used, the effect size difference between low-benefit and high-benefit surcharges is twice the benefit coefficient and equals .56 Cohen's d units, which corresponds to 14% of the Cohen's d range (-2, 2) and a moderate effect size difference. This result is robust in seven of the eight checks that we employed.

Examining the *attentional* moderators, supporting H8, the coefficient for price level is positive (β = .0004, p = .09), suggesting that a $100 increase in price level increases the effect size of partitioned pricing on demand by .04 Cohen's d units, which corresponds to 1% of the Cohen's d range (-2, 2). This appears to be a small effect size difference and it is significant in only two of our robustness checks. Nevertheless, the result is consistent with previous research that has found partitioning to be more effective at higher price levels (e.g., Roggeveen, Xia, and Monroe 2006).

Finally, supporting H9, the coefficient for typicality of partitioning is positive (β = .29, p = .005), suggesting that partitioning has a more favorable effect on demand when surcharges are typically partitioned than when they are not typically partitioned. For example, partitioned prices should lead to greater demand over all-inclusive prices when surcharges are typical (e.g., taxes) than when they are atypical (e.g., cell phone Web features). The effect size difference between partitioning with typical and atypical surcharges is .58 Cohen's d units, which corresponds to 15% of the Cohen's d range (-2, 2). Considering that this is a moderate effect size, and that typicality of partitioning has not been extensively studied, this moderator holds promise as a fruitful avenue for future research. This result is significant across all of the robustness checks we employed.

For the meta-analysis, we computed the bias-adjusted, weighted Cohen's d for the DV difference between partitioned and all-inclusive conditions for each observation. In order to provide a more managerial interpretation than Cohen's d for the moderator effects, we reverse-computed the % increases in DV corresponding to Cohen's d values of .32, .56, .04, and .58, which are the effect size magnitudes for the

four theoretical moderators. This computation requires DV std. dev. data, but only 38 observations in our data set provided this data, and the corresponding demand increases ranged from 1% to 136%, 1% to 238%, 0% to 17%, and 1% to 246% respectively, providing some benchmarks for managers to make trade-offs while deciding which moderators to focus their resources on.

Robustness checks. Across the robustness checks, we were able to generally replicate the results of the meta-analysis in terms of prediction accuracy, coefficient magnitude, significance, and RMSE. However, the HLM with only theoretical factors predicted only 61% of the effect directions, and the non-weighted HLM predicted only 42% and also had a large RMSE. Notably, the coefficient for typicality remained significant across all robustness checks and the coefficient for benefit remained significant across all robustness checks except for the non-weighted effect size HLM. The sample sizes used for weighting the effect sizes varied from 27 to 512, so it is not surprising that the effects in the HLM with non-weighted effect sizes differed from the effects in the original HLM. In the interaction model, none of the six two-way interactions was significant ($ps > .11$). Table 5 summarizes the results of the robustness checks for the six coefficients that were significant in the original model.

TABLE 5

META-ANALYSIS: RESULTS OF ROBUSTNESS CHECKS

Note: **** $p < .001$, *** $.001 \leq p < .01$, ** $.01 \leq p < .05$, * $.05 \leq p < .10$

Model	$\beta_{DV\ type}$	β_{year}	$\beta_{price\ level}$	$\beta_{benefit}$	$\beta_{total\ price\ present}$	$\beta_{typicality}$
HLM (original model)	-.22****	-.05***	.0004*	.28***	-.16*	.29***
Mixed model assuming independence	-.27****	-.04***	.0003	.28****	-.16**	.26***
Mixed model with independent observations (N = 90)	-.22**	-.05**	.0003	.32***	-.18*	.33***
HLM with interactions	-.23****	-.05***	.0002	.34***	-.10	.30**
HLM with only theoretical moderators	N. A.	N. A.	.0002	.26***	-.22**	.23**
HLM without ASM	-.22****	-.05***	.0004**	.29***	-.16*	.29***
HLM without price level	-.23****	-.04**	N. A.	.26***	-.15	.30***
HLM without RSM	-.22****	-.05***	.0004*	.28***	-.17*	.29***
HLM with non-weighted Cohen's d	-.26****	-.02	.0003	.19	-.02	.24*

Discussion

This meta-analysis examines the overall effect of partitioned pricing as well as *presentational*, *evaluative*, and *attentional* moderators: surcharge format and presence of total price; surcharge benefit, seller reputation, and surcharge controllability; and ASM, RSM, price level, and typicality of partitioning. From the meta-analysis, the overall effect of partitioned pricing was not significant, but the coefficients for surcharge benefit and typicality of partitioning were significant across a variety of robustness checks, suggesting that they play an important role in explaining differences across observations. Price level and presence of the total price were marginally

significant and less robust, suggesting that they might play a role in explaining differences across observations, but more research is needed to draw firm conclusions.

Although we tried to perform a comprehensive meta-analysis, we may have missed some studies. One limitation of our meta-analysis is that 84% of our data is from published sources, leading to the possibility of a selection bias due to the relative absence of null-result, file-drawer studies that might have dampened the estimates of overall effect size. To address this concern, our call for papers included a call for unpublished work. Moreover, our proportion of published vs. unpublished work is similar to that of other meta-analyses (e.g., 91% in Bijmolt, van Heerde, and Peters (2005) and 91% in Sethuraman, Tellis, and Briesch (2011)). Considering that the overall effect size estimate was not significantly different from zero, the influence of file-drawer studies on the overall effect size might be negligible. However, it is possible that these file-drawer studies might yield some useful insights on the effects of the moderators.

Another limitation is that there was very little variance across observations for moderators such as surcharge format, seller reputation, and surcharge controllability. This was because although we contrast-coded (rather than dummy-coded) these and other moderators to maximize the number of observations in the meta-analysis, they either had fewer non-zero values or less variance between non-zero values than other moderators such as surcharge benefit and typicality of partitioning. This might explain why some of the factors that have been found to have significant effects in previous studies did not show significant effects in the meta-analysis. These non-significant effects could also be due to other unidentified moderators or interactions between

moderators. We tested for two-way interactions between the four moderators that were significant in the meta-analysis, but none of the interactions was significant. Future research could test these effects further by experimentally manipulating pairs of these and other moderators.

Although the meta-analysis shows typicality to be a moderator of partitioned pricing, it is a new construct that we introduced by coding stimuli from extant research so, to replicate the meta-analytic findings, we experimentally manipulated typicality in two follow-up studies. In line with recent practices (LeBel et al. 2013; Simmons, Nelson, and Simonsohn 2012), we report all data exclusions, stopping rules, measures, covariates, manipulations, and sample size determinations for our studies.

Experiment 1: The Moderating Effect of Typicality on Demand

The meta-analysis shows that typical surcharges increase the effect of partitioned pricing relative to atypical surcharges. However, this could be because partitioning has a positive effect for typical surcharges and a weaker positive effect, a null effect, or a negative effect for atypical surcharges. This could also be because partitioning has a null effect for typical surcharges and a negative effect for atypical surcharges or because it has a weaker negative effect for typical surcharges than for atypical surcharges. Therefore, this study was designed to shed light on how the relative effect sizes of partitioned pricing for typical and atypical surcharges drive the overall effect. Additionally, in the meta-analysis, variation in typicality was due to components being typical vs. atypical. In this study, we hold the component constant

and manipulate typicality using norms, by showing that competitors use either partitioned or non-partitioned prices.

Participants and Procedure

Participants were recruited via MTurk to complete an online study for $.50. Sample size was predetermined to be 200, and data collection stopped at 200 responses; however, two MTurkers completed the study without submitting the MTurk HIT, leading to 202 responses (68% female, ages 18 to 63, M_{age} = 31.6).

Participants were randomly assigned to the conditions of a 2 (price presentation: all-inclusive, partitioned) × 2 (typicality of partitioning: typical, atypical) between-subjects design. Participants were asked to imagine that they would be spending a few weeks in India, and that they were searching for a return flight from Delhi to Washington, DC. They were informed that a friend who had traveled to India suggested MakeMyTrip.com for the best fares. To manipulate typicality, we adapted a norms manipulation from Redden, Fitzsimons, and Williams (2007). Participants saw reference flights for competitors that were associated with four different airline logos and prices. In the typical partitioning conditions, all reference flights had a base price (range: $731.69 to $751.69) and a taxes surcharge (range: $38.88 to $34.88), making partitioning typical. In the atypical partitioning conditions, the prices of all reference flights were all-inclusive (same total price range: $770.57 to $786.57), making partitioning atypical. Participants then saw the target airline logo and price, which was either all-inclusive or partitioned.

In the partitioned presentation conditions, the target airline, Air India, had a base price ($741.69) and a taxes surcharge ($36.88) while in the all-inclusive

presentation conditions, it had a single price ($778.57). Thus, price presentation of the target flight either matched that of the reference flights (both target and reference flights were partitioned or both were all-inclusive) or it did not match. Next, participants responded to dependent measures for purchase intention, offer evaluation, attention to the surcharge (partitioned conditions only), and a typicality manipulation check. They also responded to control measures for flight quality, expected size of a typical taxes surcharge, surcharge benefit, fairness (partitioned conditions only), experience purchasing airline tickets, comprehension (based on Oppenheimer, Meyvis, and Davidenko 2009, but used as a potential covariate rather than as a filter), and demographics.

An exploratory factor analysis revealed that the scale-items for purchase intention and offer evaluation loaded on a single factor (loadings > .89), so they were averaged to form a preference index ($\alpha = .95$). Figure 2 lists the dependent measures used in the study and Table 6 contains their means and standard deviations.

FIGURE 2

EXPERIMENT 1: DETAILS OF DEPENDENT MEASURES

Measure
Preference (α = .95)
How likely are you to book the Air India flight? (1 = unlikely/will not book; 7 = likely/will book)
The overall offer for the Air India flight is: (1 = unattractive/undesirable; 7 = attractive/desirable)
Attention to surcharge
How much attention did you pay to the surcharge for taxes when you evaluated the Air India offer? (1 = very little attention; 7 = a lot of attention)
Typicality of partitioning
Based on the four airline prices that you initially saw, how typical is it that flights from Delhi display a separate surcharge for taxes (rather than a single price for the flight and taxes)? (1 = not at all typical; 7 = very typical)
Flight quality
In your opinion, the quality of the Air India flight is likely to be: (1 = very low; 7 = very high)
Typical taxes surcharge
Based on the prices that you saw, how much do you expect a typical surcharge for airline taxes to be? (in $)
Surcharge benefit (r = .81)
How much benefit do the airline taxes provide you with? (1 = very little; 7 = a lot)
How useful are the airline taxes to you? (1 = not at all; 7 = very)
Surcharge fairness
How fair was the surcharge for Air India's airline taxes? (1 = unfair; 7 = fair)
Experience purchasing airline tickets
How much experience do you have purchasing airline tickets? (1 = no experience at all; 7 = a lot of experience)

TABLE 6

EXPERIMENT 1: CONDITION-WISE MEANS (STANDARD DEVIATIONS)

FOR DEPENDENT MEASURES

MEASURE	Typical		Atypical	
	All-inclusive (n = 49)	Partitioned (n = 49)	All-inclusive (n = 53)	Partitioned (n = 51)
Preference	4.6 (1.54)	5.2 (1.40)	5.3 (.99)	5.3 (1.29)
Attention to surcharge	N.A.	5.3 (1.57)	N.A.	4.8 (1.60)
Typicality of partitioning	5.8 (1.36)	6.2 (1.36)	3.6 (2.13)	4.2 (2.06)
Flight quality	4.7 (1.05)	4.9 (1.10)	4.8 (.96)	4.9 (1.13)
Typical taxes surcharge	$64 ($133)	$57 ($113)	$58 ($68)	$40 ($27)
Surcharge benefit	2.6 (1.40)	2.5 (1.53)	3.0 (1.59)	2.4 (1.33)
Surcharge fairness	N.A.	4.4 (1.33)	N.A.	4.3 (1.54)
Experience purchasing airline tickets	3.9 (1.71)	3.7 (1.93)	3.7 (1.90)	3.3 (1.53)

Analysis and Results

All data were analyzed at one shot after data collection stopped. Degrees of freedom vary across some of the analyses due to missing responses.

Manipulation check. A 2 (price presentation: all-inclusive, partitioned) × 2 (typicality: typical, atypical) between-subjects ANOVA on the typicality measure revealed the expected effect of typicality ($F(1, 198) = 67.23$, $p < .001$, $\eta^2_p = .25$) and an effect of price presentation ($F(1, 198) = 4.49$, $p = .04$, $\eta^2_p = .02$). Typicality was higher in the typical conditions (M = 6.0) than in the atypical conditions (M = 3.9)

and higher in the partitioned conditions (M = 5.2) than in the all-inclusive conditions (M = 4.6); however, the interaction was not significant ($p > .62$), indicating a successful manipulation of typicality across both price presentation conditions.

Preference. The same 2 × 2 ANOVA on preference revealed an effect of typicality ($F(1, 198) = 5.10$, $p = .03$, $\eta^2_p = .03$) and a marginal interaction between typicality and price presentation ($F(1, 198) = 3.11$, $p = .08$, $\eta^2_p = .02$). Preference was lower in the typical condition (M = 4.9) than in the atypical condition (M = 5.3). Consistent with H4 and the meta-analysis, planned comparisons revealed a significant effect of price presentation in the typical conditions ($F(1, 96) = 4.16$, $p = .04$, $d = .40$), but not in the atypical conditions ($F(1, 102) = .04$, $p > .83$, $d < .07$). Specifically, atypicality attenuates the effect of partitioned pricing: in the typical conditions, partitioning increased preference (M = 5.2) relative to all-inclusive presentation (M = 4.6) but, in the atypical conditions, there was no difference (Ms = 5.3 and 5.3), suggesting a positive effect of partitioning for typical surcharges and a null effect for atypical surcharges.

Preference was not correlated with experience, the comprehension check, or any of the demographic variables except gender ($r = -.17$, $p = .02$). Including gender as a covariate does not substantively change the results (price presentation effect: $p = .06$ in the typical conditions, $p > .89$ in the atypical conditions).

Other measures. The same 2 × 2 ANOVA on flight quality, typical taxes surcharge, and surcharge benefit revealed only a marginal effect of price presentation on surcharge benefit ($F(1, 197) = 2.77$, $p < .10$, $\eta^2_p = .01$), ruling them out as process explanations (other *p*s > .18). Surcharge benefit was marginally higher in the

partitioned conditions (M = 2.8) than in the all-inclusive conditions (M = 2.5). However, the lack of an interaction suggests that surcharge benefit cannot explain the effect on preference. Attention and surcharge fairness did not vary across the typicality conditions (*p*s > .11).

Discussion

Consistent with H9 and the meta-analysis, this study suggests that atypical surcharges attenuate the positive effect of partitioned pricing. Specifically, in the typical conditions, partitioning raised preference relative to all-inclusive presentation, but in the atypical conditions, the effect was not significant. Flight quality, typical taxes surcharge, surcharge benefit, attention, and surcharge fairness either did not show significant effects or had different patterns, ruling them out as process explanations. Although we did not offer a main-effect hypothesis for typicality, we found that preference was lower in the typical condition than in the atypical condition. At first glance, this appears surprising because atypicality might be expected to raise attention to a surcharge and to decrease rather than increase preference. One possibility is that it might be more difficult to process four partitioned airline prices (the typical condition) than it is to process four all-inclusive airline prices (the atypical condition) due to more information for the partitioned prices. This difficulty might reduce fluency and liking (Schwarz 2004) for any airline prices, resulting in the observed pattern; however, we were unable to test this because we did not have measures for fluency.

Although we replicated the meta-analytic effect of typicality, there was no effect on the self-reported measure of attention to the surcharge. Therefore, we ran

another study to check the effect of typicality on eye-tracked attention to the surcharge.

Experiment 2: The Effect of Typicality on Attention to the Surcharge

Participants and Procedure

One hundred and twenty-nine participants were randomly assigned to the conditions of a 2 (price presentation: all-inclusive, partitioned) × 2 (typicality: typical, atypical) between-subjects ANOVA, and sat in front of a computer screen that had a Tobii X60 eye-tracker attached that was capable of recording which part of the computer screen they were looking at. Each participant saw two purchase scenarios that were from the same experimental condition: an airline scenario and a concert scenario. The airline scenario was similar to the scenario in Experiment 1, and typicality was cleanly manipulated, but there were no significant results, so we do not report this study in greater detail.

For the concert scenario, participants looked at the first computer screen and, similar to the scenario in Experiment 1, they saw the scenario description and four reference prices and, on the next computer screen, they saw the target price. The focal component was a ticket and the partitioned component was a service charge. The reference tickets had total prices ranging from $94.67 to $96.67 and the base price and service charge for the partitioned reference prices ranged from $84.88 to $88.88 and $7.79 to $9.79 respectively. The total price for the target ticket was $95.67 and the base price and service charge in the partitioned condition were $86.88 and $8.79 respectively. Then, participants responded to a paper questionnaire with measures of purchase intention, offer evaluation, attention to surcharge (partitioned only),

surcharge favorability (partitioned only), surcharge fairness (partitioned only), a typicality manipulation check, and a control measure for concert quality. Finally, participants responded to measures of the expected typical surcharge and the perceived benefit for both scenarios.

Areas of Interest (AoIs) were defined for the screen with the partitioned target prices as a rectangular box surrounding the surcharge. Each box had a buffer of 60 pixels in all four directions in order to allow for measurement error. The eye-tracking DVs were Gaze Duration (Pieters and Wedel 2007) and Fixation Count (Henderson, Weeks, and Hollingworth 1999), defined respectively as the total time period and the number of times that the eye focuses at a particular position on the screen. These DVs measure the attention that participants paid to the AoIs, and they were computed only in the partitioned conditions as the corresponding text was absent in the all-inclusive conditions. Our prediction was that participants would pay more attention to the surcharge in the atypical condition.

Results

All data were analyzed at one shot after data collection stopped. Degrees of freedom vary across some of the analyses due to missing responses.

The results of a 2 (price presentation: all-inclusive, partitioned) × 2 (typicality: typical, atypical) ANOVA on the concert scenario typicality manipulation check measure revealed only a main effect of typicality ($F(1, 117) = 61.11$, $p < .001$), indicating a successful manipulation (*M*s = 5.9 vs. 3.3). The same 2 × 2 ANOVA analysis on purchase intention, offer evaluation, a combined preference index, flight quality, typical taxes surcharge, and surcharge benefit did not reveal any effects.

However, a two-level (typicality: typical, atypical) one-way ANOVAs revealed (marginally) significant effects on gaze duration ($F(1, 59) = 3.58$, $p = .06$), fixation count ($F(1, 59) = 4.40$, $p = .04$), and surcharge favorability ($F(1, 59) = 5.08$, $p = .03$). Consistent with our prediction, more attention was paid to the AoI in the atypical condition than in the typical condition ($M_{\text{gaze duration}}$ = 2.1 vs. 1.1 seconds and $M_{\text{fixation count}}$ = 20.2 vs. 13.0). Although we only had a prediction about attention to the surcharge, we also computed eye-tracking DVs for the base price and found similar results as attention to the surcharge: more attention was paid to the base price in the atypical condition than in the typical condition ($F(1, 59) = 9.21$, $p = .004$ for gaze duration and $F(1, 59) = 7.59$, $p = .008$ for fixation count; $M_{\text{gaze duration}}$ = 4.0 vs. 2.1 seconds and $M_{\text{fixation count}}$ = 37.4 vs. 20.5), perhaps because the atypical surcharge led participants to process not just the surcharge but also all other pricing information in greater detail. Surcharge favorability was rated lower in the atypical condition (M = 3.4) than in the typical condition (M = 4.3), suggesting that participants reacted less favorably to the atypical surcharge.

Discussion

These results provide some insight into the differential effects of typical vs. atypical surcharges. However, as these differences did not manifest themselves on the downstream preference DVs, we are unable to draw firmer conclusions about the mediating role of attention in the effect of typical vs. atypical surcharges on preference. The lack of effects on the downstream DVs might be because the eye-tracking portion of the study resulted in more noisy downstream measures considering that Experiment 1 found effects on the downstream measures.

Additionally, there were no effects in the airline scenario even though Experiment 1 found effects on preference so, in order to explore this mechanism further, we plan to run another Web-based study with the concert scenario, but without any eye-tracking, to test the effects on downstream DVs in a cleaner experimental setup.

General Discussion

Partitioned pricing research initially focused on recall biases due to incomplete processing of surcharges, making partitioned prices seem more attractive to consumers (Morwitz, Greenleaf, and Johnson 1998). More recent research has shown both positive and negative effects of price partitioning on demand, suggesting that moderators play an important role. In this paper, we theoretically classify moderators of partitioned pricing based on the source of their impact: *presentational*, *evaluative*, or *attentional* and then use meta-analysis to quantitatively summarize 17 years of partitioned pricing research. We also report two experimental studies that examine typicality of partitioning the surcharge, one of the moderators that was shown to be significant in the meta-analysis, focusing on its moderating effect on demand and the role of attention.

Contributions

Our first contribution is to theoretically classify moderators of partitioned pricing based on the source of their impact: *presentational*, *evaluative*, or *attentional*. Our second contribution is to meta-analyze the partitioned pricing literature. Although there is one working paper reviewing research on price partitioning (Morwitz et al. 2009), this is the first meta-analysis that we are aware of. The results

of the meta-analysis revealed a non-significant average effect size of .08 for partitioned pricing, suggesting that the main effect of partitioning is likely to be moderated by other factors. Consistent with this interpretation, the results of the meta-analysis provided evidence that the effect of partitioned pricing is moderated by surcharge benefit and typicality of partitioning. We also ran various robustness checks and the results were generally robust across these checks. Price level and presence of the total price were marginally significant in the meta-analysis, but less robust, suggesting that these moderators might also have a role to play, although more research is needed to draw firm conclusions.

Our third contribution is to introduce the typicality construct to partitioned pricing research. We define the typicality of partitioning as the degree to which partitioning a surcharge is representative of the norm for a particular category. Convergent results from the meta-analysis and Experiment 1 show that typicality moderates the effect of partitioned pricing. The meta-analysis showed that typical surcharges increase the effect of partitioning relative to atypical surcharges, and Experiment 1 showed a positive effect of partitioning for a typical surcharge but no effect for an atypical surcharge. Although the meta-analysis and Experiment 1 showed a replicable effect of typicality and demonstrated that the effect was due to a positive effect of partitioning for typical surcharges and a null effect for atypical surcharges, the underlying process was not tested. One mechanism that may explain this effect is attention: surcharges that are atypical may attract more attention from consumers, leading to downstream effects on evaluations. In order to examine the potential attentional mechanism at play in these effects, we ran an eye-tracking study,

Experiment 2, which provided some evidence for attention to surcharges being higher for atypical surcharges than for typical surcharges.

Implications and Conclusion

From a theoretical perspective, in addition to typicality of partitioning, the meta-analysis also identified surcharge benefit, price level, and presence of the total price as moderators of the effect of partitioned pricing. The influence of surcharge benefit is consistent with past research. For example, Bertini and Wathieu (2008) found more favorable evaluations for partitioned prices for a four-hour plus flight when the surcharge was for six movie channels and a full-service meal, but less favorable evaluations when the surcharge was for one episode of a sitcom and refreshments. The effect of presence of the total price is also consistent with prior research (Hamilton and Srivastava 2008) suggesting that explicitly providing the total price will attenuate the effect of price recall biases because anchoring and insufficient adjustment will be less likely to occur. Finally, consistent with Roggeveen, Xia, and Monroe (2006) and with Chatterjee (2010), price level had a positive impact on the effect of partitioned pricing on demand.

In addition to these theoretical implications, the proposed research offers implications for business practitioners. Given resource constraints, marketers must prioritize their surcharge decisions; the coefficient magnitudes and significance levels in our results suggest that managers should first focus on high typicality of partitioning, followed by high surcharge benefit, total price absence, and high price levels. Also, as mentioned in the introduction of this paper, articles in the popular press (e.g., Carey 2011) suggest that marketers are constantly coming up with new

surcharges in the hope of improving profits. Our research suggests that for such atypical surcharges, the decision of whether to present partitioned or all-inclusive prices does not appear to matter much for demand. On the other hand, if marketers continue to use more typical surcharges, our results suggest that they might be better served by using a partitioned price presentation format. At the same time, if surcharges are perceived as low benefit, this may lead to even lower demand, thereby negating any potential gains for marketers. Against this backdrop, we note recent campaigns against partitioning prices, such as Southwest's "No bag fees" campaign. Therefore, marketers who are contemplating partitioning prices should also consider the consumer's initial commitment to purchasing, whether competitors partition out the component, and how consumers feel about paying separately for the components (Hamilton, Srivastava, and Abraham 2010).

From a policy perspective, when surcharges are perceived to be unfair to consumers, government regulators may scrutinize their use. For example, the U. S. Federal Trade Commission recently organized a conference on "drip pricing" practices, which include partitioned pricing as well as other practices by which firms reveal surcharges in a sequential manner (U. S. Federal Trade Commission 2012). To protect consumers against "drip" pricing practices, regulatory watchdog agencies could insist that, if marketers choose to use partitioned prices, all the surcharges are displayed explicitly and early so that consumers know exactly what fees they will have to pay. Although it might not always be possible to regulate the specific surcharges that marketers partition out of prices, industry associations concerned about profitability have an option. By providing guidelines for the kinds of fees that

member marketers should charge, they can ensure that members do not hurt themselves by charging fees that might lead to lower demand and counteract any increase in profits due to the fees themselves.

In conclusion, we hope that this paper will spur further research examining consumers' responses to partitioned pricing. For example, based on the potential role of attention in explaining the effects of SM and typicality, additional research might use eye-tracking experiments to measure physiological attention rather than traditional self-report measures. We hope that such follow-up research will further improve our understanding of consumers' responses to surcharges and provide more nuanced implications for managers and regulators alike.

Chapter 3: Attention! The Relative Influence of Base Price Anchoring and Surcharge Salience on Consumer Preference for Partitioned Prices

Consider different pricing strategies of some sellers on eBay, all selling Pokemon *charizard* trading cards that were sold between February 27, 2015 and March 03, 2015 with a total price (winning bid plus shipping surcharge) ranging from $10.32 to $12.04. One seller (allansindy) listed a shipping surcharge of $0.95 and had a winning bid of $9.98 (shipping was approximately 10% of the winning bid or had an RSM of 10%) whereas another (brooks106) listed a shipping surcharge of $2.32 and had a winning bid of $8 (30% RSM). A third seller (cindy_lou) listed a shipping surcharge of $5.54 and had a winning bid of $6.50 (85% RSM).

Why do we observe these differences in pricing formats across sellers? Sellers' beliefs about consumers' reactions to surcharges must vary or they would not use different pricing formats. Prior research suggests that surcharges may influence consumer evaluations of offers in multiple ways. One stream of literature, starting with early research on partitioned pricing (Kim 2006; Lee and Han 2002; Morwitz, Greenleaf, and Johnson 1998), suggests that consumers incompletely process surcharges, thereby underestimating the total prices that they use in purchase decisions. Morwitz and colleagues (1998) proposed an anchoring-and-insufficient-adjustment mechanism for this incomplete processing: consumers anchor on base prices and insufficiently adjust upward for surcharges, resulting in a "price recall bias."

For a given total price (the sum of the base price and the surcharge), as the ASM increases, the base price will decrease, resulting in a lower anchor when consumers try to recall the total price. Therefore, "base price anchoring" suggests lower total price estimates and higher purchase intentions as SM increases. Another stream of literature, based on psychophysics (Kamen and Tomen 1971; Monroe 1971), suggests a countervailing influence: as the SM increases, consumers will be more likely to notice and attend to a surcharge due to increased "surcharge salience." As attention to a surcharge increases, consumers will be more likely to process the surcharge, suggesting that as SM increases, consumers more accurately recall surcharges and total prices.

Going back to our initial observations of sellers on eBay with low (10% RSM), moderate (30% RSM), and high (85% RSM) shipping surcharges, the base price anchoring account suggests that, as the SM increases, consumers are likely to anchor on the lower base price when they attempt to recall the total price. Prior literature on anchoring suggests that the magnitude of the adjusted outcome will be driven by the initial anchor (Tversky and Kahneman 1974), predicting that purchase intentions will be highest for offer 3 (85% RSM), followed by offer 2 (30% RSM), and then offer 1 (10% RSM).

However, the surcharge salience account suggests that consumers are more likely to attend to and process all pricing information as the SM increases, implying increased attention to the surcharge, increased recalled total prices, and decreased purchase intentions as the SM increases. Thus, we should observe the opposite pattern of effects, with purchase intentions highest for offer 1 (10% RSM), followed by offer

2 (30% RSM), and then offer 3 (85% RSM). Table 7 highlights these competing predictions.

TABLE 7

COMPETING PREDICTIONS

	Winning bid	**Surcharge**	**RSM**	**Anchoring on base price prediction**	**Surcharge salience prediction**
Low surcharge	$9.98	$0.95	~10%	Lowest purchase intentions	Highest purchase intentions
Moderate surcharge	$8	$2.32	~30%	Moderate purchase intentions	Moderate purchase intentions
High surcharge	$6.50	$5.54	~85%	Highest purchase intentions	Lowest purchase intentions

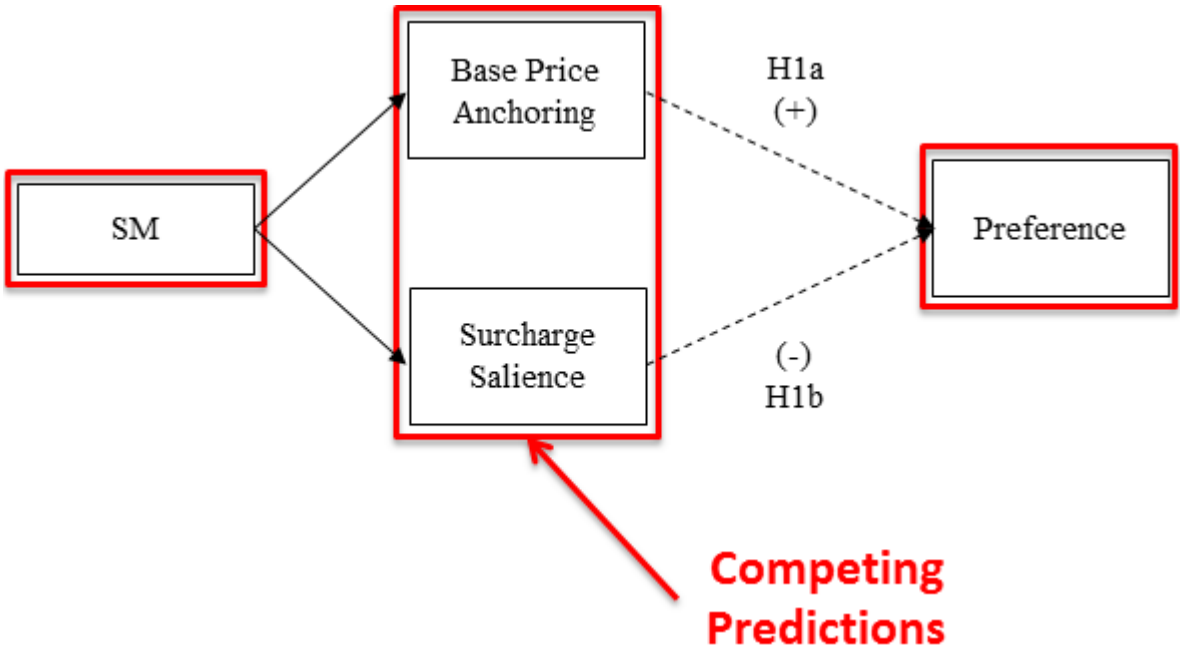
A priori, it is not clear which prediction is more accurate and under which conditions, suggesting the need for a deeper examination into these influences. With this motivation in mind, our problem statement is as follows: we examine the effect of SM on consumer preferences and attention to the surcharge, and attempt to identify conditions in which the relationship between SM and preference is positive vs. negative.

The intended contributions of this essay are as follows. First, by focusing on the effect of SM, we develop predictions that take into account the opposing influences of base price anchoring and surcharge salience. This allows for a more complete investigation of the effects of surcharges on preference. We also attempt to identify conditions under which each of these influences will dominate. Second, although some researchers (Bertini and Wathieu 2008; Chakravarti et al. 2002;

Hamilton and Srivastava 2008) have investigated surcharge salience, there do not appear to be any direct tests for the role of attention in surcharge processing. We attempt to provide evidence for this role of attention in surcharge processing. We use behavioral experiments to test for effects on preference, and we examine the role of attention by using an eye-tracking experiment. We also attempt to provide external validity for our findings by analyzing eBay data. Figure 3 depicts the conceptual framework for the proposed research.

FIGURE 3

THEORETICAL FRAMEWORK



In the next section, we lay out the relevant theoretical foundation for our research, focusing initially on the existing literature in partitioned pricing. We build

cases for the base price anchoring account and the surcharge salience account as well as the effects on attention, along with accompanying hypotheses. We then present results from three studies that we ran to test our hypotheses. We end with a summary of the proposed research and implications.

Theory and Hypotheses

Partitioned Pricing and Absolute vs. Relative Magnitudes

The principle of descriptive invariance (Tversky, Sattath, and Slovic 1988) suggests that preferences should not vary based on the format in which stimuli are presented. However, Morwitz and colleagues (1998) showed that this is not always true because partitioned prices, which present the total price split into a base price and a surcharge, increase demand relative to non-partitioned prices (holding the total price constant). These authors provide evidence for a price recall bias: consumers who saw partitioned prices were more likely to ignore surcharges and to recall lower total prices than those who observed non-partitioned prices. The mechanism suggested by Morwitz and colleagues was that consumers anchor (Tversky and Kahneman 1974) on the base price, which is encoded in memory. In contrast, the surcharge is not completely processed so it is not accurately encoded in memory.

When consumers try to recall the price of a product at the time of evaluative judgments, they are usually able to recall the encoded base price because they anchored on it earlier. However, because they do not completely process the surcharge information, they do not accurately encode it, and they are less likely to accurately recall it (Morwitz, Greenleaf, and Johnson 1998). Thus, consumers engage in an adjustment process (Tversky and Kahneman 1974) wherein they adjust upward

to account for the surcharge information. Such adjustments are usually insufficient, leading to a lower recalled total price than with non-partitioned prices. This price recall bias leads to higher demand, which subsequent research has validated (Kim 2006; Lee and Han 2002).

In the context of prices, Weber's Law suggests that consumers are more sensitive to the same absolute change in the price of a less expensive component than in the price of a more expensive component (Monroe 1971). This is because the same absolute change has a greater relative magnitude for a less expensive component, indicating that consumers process changes in relative rather than absolute terms. This suggests that the effect of surcharges can be studied relative to the base price rather than in absolute terms. However, we do not focus on the absolute versus relative distinction because our stimuli use positively correlated absolute and relative SM.

Base Price Anchoring

The mechanism proposed by Morwitz and colleagues (1998) suggests that consumers are in a default mode of bottom-up or stimulus-driven information processing (Berlyne 1960; Kahneman 1973; Park and Smith 1989), which is driven by the involuntary attention that is paid to the characteristics of stimuli (as opposed to top-down or goal-driven information processing with the aim of processing specific stimuli or portions of stimuli). In such a bottom-up mode, consumers attend to and anchor on the base price and then encode it, but they pay less attention to the less salient surcharge. This leads to incomplete processing of the surcharge, so it is not completely encoded, resulting in a recall bias.

Yadav (1994) showed that, in transactions involving bundles, consumers anchor on a focal component, usually the more expensive one. Consistent with base price anchoring, other things being equal, a higher SM (implying a lower base price) should lead to a greater price recall bias and higher purchase intentions. This is consistent with past research (Cheema 2008; Morwitz, Greenleaf, and Johnson 1998), suggesting that consumers are not paying complete attention to the surcharge (for moderate- and high-reputation eBay sellers in the case of Cheema's research), and research showing that higher shipping fees lead to higher revenue on eBay (Hossain and Morgan 2006). Therefore, base price anchoring predicts lower base price anchors as a function of SM, leading to lower recalled prices and the following hypothesis:

H1a: Higher SMs lead to greater preference than lower SMs.

Surcharge Salience

Another stream of research has focused on how partitioning increases the salience of and the attention paid to surcharges and secondary components. Chakravarti and colleagues (2002) found that partitioning increased the salience of benefits associated with a partitioned component. Subsequent evaluations were then based on the relative levels of benefit offered by various partitioned components. Bertini and Wathieu (2008) also found evidence for the role of attention to secondary benefits derived from a transaction (the benefits derived from the non-focal components) as a consequence of partitioned pricing and as a driver of preference.

The surcharge salience account suggests that, as SM increases, consumers will be more likely to notice and pay attention to surcharges, leading to higher recalled prices. Additionally, surcharges that exceed fairness thresholds are likely to decrease

purchase intentions (Campbell 1999; Xia, Monroe, and Cox 2004). Consistent with this account, prior research has shown that higher SM increases perceived expensiveness (Wang and Lynn 2007), and reduces perceived value (Wang and Lynn 2007; Xia and Monroe 2004), willingness to pay (WTP; Burman and Biswas 2007) and likelihood of buying (Burman and Biswas 2007; Chatterjee 2010; Cheema 2008), leading to the following competing hypothesis for H1a. We note that this is not a new hypothesis, but we formally state the hypothesis in order to test the competing predictions offered by the base price anchoring account and the surcharge salience account.

H1b: Higher SMs lead to lower preference than lower SMs.

At the same time, this stream of research has not investigated the possibility of differential attention due to different SMs. Therefore, we propose the following hypothesis about the effect of SM on attention:

H2: Higher SMs will increase attention to the surcharge relative to lower SMs.

We have proposed competing hypotheses about the effects of base price anchoring and the effects of surcharge salience. It is also possible that these effects will occur simultaneously, balancing one another at some or all levels of SM, and leading to neither a completely upward-sloping nor a completely downward-sloping curve, but to an inverted U-shaped curve. Our studies are designed to test this possibility. Based on the dissertation proposal, we have one additional hypothesis (about the moderating effect of typicality of partitioning) that is no longer the focus of

this essay; however, we include this theory and hypothesis in Appendix 3 and the results from multiple studies that were run to test the hypothesis in Appendix 4.

Overview of Methodology to be Employed

To investigate the hypotheses, we describe three studies. We begin with Study 1, an empirical analysis of eBay auction data to examine the effect of SM on preferences in an externally valid context. We follow that with Study 2, a behavioral experiment to investigate the relationship between SM and preference in a more controlled setting, and Study 3, an eye-tracking experiment that studies the effect of SM on preference and attention. Given prior research suggesting that some consumers react negatively to certain charges such as shipping (Hamilton and Srivastava 2008; Schindler, Morrin, and Bechwati 2005), we use a variety of surcharges in Study 3 to demonstrate greater robustness for our proposed effects. In the next sections, we describe the methodology and the results of the analyses for our studies. In line with recent practices (LeBel et al. 2013; Simmons, Nelson, and Simonsohn 2012), we report all data exclusions, stopping rules, measures, covariates, manipulations, and sample size determinations for our studies.

Study 1: Analysis of eBay Data

Field studies on partitioned pricing have used data from Internet shopping bots (Smith and Brynjolfsson 2001), Korean auction Web-sites (Chan, Kadiyali, and Park 2007), and eBay (Cheema 2008). We focus on eBay data because eBay is the most ubiquitous Internet auction Web-site, with "more than ten times the revenue of its closest competitor" (Lucking-Reiley 2000). Additionally, unlike choice data, eBay

provides WTP data, which can be used to empirically quantify the effect of surcharges in a field setting. Moreover, eBay provides publicly available access to data from auctions for a period of a little over two weeks after an auction has ended (Clark and Ward 2008).

One question is whether auction data from Web-sites such as eBay allows for an accurate representation of WTP. Shmueli and Jank (2005) provide a summary of the auction process on eBay, which usually follows a second-price auction process with automatic proxy-bidding increases. Accordingly, the winning bid is actually not the WTP for the winning bidder, but a marginal amount higher than the WTP of the second-highest bidder. However, in line with prior research (Cheema 2008; Clark and Ward 2008; Hossain and Morgan 2006), this winning bid amount has been used as an acceptable proxy for WTP, and we propose to use eBay auction data in the same manner.

Sellers on eBay have a choice of charging a shipping fee for products that they sell. Therefore, some sellers prefer to charge a separate shipping fee, leading to a partitioned price, with a base price winning bid for the auctioned item and the surcharge for the shipping fee. Therefore, overall WTP is the sum of winning bid and the surcharge. The shipping fee (if present) is usually specified in a separate field below the item details such as item name and item condition (new, used, etc.), and the bidding details (time left, bid history, and current bid) as well as the field for entering one's bid. Data is also available on the feedback score for each seller, which is an important control variable to be used in any analysis based on past research that has

shown the role of seller reputation (Bradlow and Park 2007; Carlson and Weathers 2008; Cheema 2008).

Procedure

Sample size was determined by the number of completed auctions with publicly available information over three non-overlapping data-collection periods. Data recording in each period stopped after all data entry, leading to 313 auctions. We selected items that have been used in past research and other categories in which both partitioned and non-partitioned prices are frequently observed. We used the category of blu-ray movie trilogies, specifically focusing on the Lord of the Rings trilogy, which was one of the trilogies investigated by Cheema (2008). We also used the category of Pokemon *charizard* trading cards that was examined by Clark and Ward (2008). Additionally, we used 16GB iPod nanos and JDM Super White 9006/HB4 Halogen Headlight Light Bulbs based on a search of possible product categories with a mix of partitioned and non-partitioned pricing formats. However, to test our hypotheses, we required data from only the partitioned formats, leading to data from a total of 243 auctions that still provided greater generalizability than prior research (Cheema 2008; Hossain and Morgan 2006), which looked at one and two product categories respectively.

Overall WTP was computed as the sum of winning bid and shipping fee for each auction. Past research has suggested some important control variables when studying auctions, so we included them too in our analysis to provide a more holistic perspective than prior research. Seller feedback score was used to control for any differences in seller reputation (Bradlow and Park 2007; Carlson and Weathers 2008;

Cheema 2008) that might be driving some of the differences in WTP across the various auctions that data is available for. We also included opening bid (Hossain and Morgan 2006), duration of auction (Lucking-Reiley et al. 2007), weekday vs. weekend closing (Lucking-Reiley et al. 2007), and number of bids (Hossain and Morgan 2006). In order to test H1a, H1b, and the joint influence of base price anchoring and surcharge salience, we regressed WTP on shipping fee magnitude and squared shipping fee magnitude, with the previously mentioned control variables as covariates along with category dummy variables for Pokemon card, halogen light, and iPod nano. All independent variables were mean-centered before analysis.

Results

Data were analyzed after each data-collection period and then altogether. Table 8 contains the results for the coefficients of shipping fee magnitude and squared shipping fee magnitude in the overall analysis of 243 auctions and in the category-level analyses.

TABLE 8

STUDY 1: OVERALL AND CATEGORY-LEVEL ANALYSES

Notes: *** $p < .001$, ** $p < .01$, * $p < .05$

Category	n	Average RSM	Coefficient of ASM	Coefficient of ASM^2
Overall	243	44%	1.58***	-.01
Blu-ray trilogy	39	26%	1.68**	-.02*
iPod nano	59	7%	-.39	.05
Halogen light	67	89%	Excluded due to low variance	-1.56
Pokemon card	78	41%	2.29**	-.02

The results of the regression analysis revealed a significant overall model (R^2_{adj} = .93, $p < .001$), and the category dummy variable coefficients revealed significant category-level differences in WTP relative to the baseline category of the blu-ray trilogy (β_{iPod} = 65.80; $t(311) = 17.23$, $p < .001$; $\beta_{halogen\ light}$ = -26.16; $t(311) = -8.11$, $p < .001$; $\beta_{Pokemon\ card}$ = -20.29; $t(311) = -7.67$, $p < .001$). Importantly, consistent with H1a and the base price anchoring account, but inconsistent with H1b and the surcharge salience account, the coefficient for shipping fee magnitude was positive (β = 1.58; $t(311) = 3.89$, $p < .001$), indicating that, for every $1 increase in shipping fee, WTP increases by $1.58, which is also consistent with the findings of Cheema (2008) and Hossain and Morgan (2006). Although the coefficient for squared shipping fee was negative, it was not significant ($p = .16$), indicating lack of support for the joint influence of base price anchoring and surcharge salience.

Control variables. Of the control variables, there was a positive relationship between number of bids and total price (β = .92; $t(311) = 6.10$, $p < .001$), which is

consistent with theorizing by Hossain and Morgan (2006). Finally, there was a positive relationship ($\beta = .25$; $t(311) = 5.63$, $p < .001$) between opening bid and total price, which is inconsistent with prior research showing that lower opening bids increase revenue (Hossain and Morgan 2006).

Robustness check. In an attempt to check the robustness of our findings in each of the individual product categories, we ran similar regressions (but without the dummy variables for product category) for the auctions within each product category. The results of these analyses vary across category, with only the blu-ray trilogy and the Pokemon card having a significant positive coefficient for shipping fee magnitude ($\beta = 1.68$; $t(39) = 3.33$, $p = .002$ and $\beta = 2.29$; $t(76) = 2.68$, $p = .009$), indicating that, for every $1 increase in shipping fee, WTP increases by $1.68 and $2.29 respectively, which is consistent with H1a and results of the analysis on all product categories, but not with H1b. The blu-ray trilogy analysis also revealed a significant negative coefficient for squared shipping fee ($\beta = -.02$; $t(39) = -2.21$, $p = .04$), indicating the joint influence of base price anchoring and surcharge salience. None of the other analyses yielded significant coefficients for shipping fee magnitude or squared shipping fee magnitude.

Discussion

Consistent with H1a and the base price anchoring account, Study 1 found a positive effect of shipping fee on WTP. Extant literature has generally focused on a single product category to study the effect of SM, but we used eBay auction data from four categories with different price levels to demonstrate that shipping fee affects demand across multiple categories after controlling for category-level differences.

Although we did not find support for the joint influence of base price anchoring and surcharge salience in the overall analysis, we found support for their dual influences in a category-level analysis of the blu-ray trilogy.

One reason why this might be is because the average RSM in this category was 26%, allowing for a range of RSM values across the spectrum and providing more scope for any relationships to manifest themselves as compared to the other categories with average RSM values at the low end (7% for iPod, suggesting a right-truncated range of values) or at the high end (89% for halogen light and 41% for Pokemon card, suggesting a left-truncated range of values). Support for the joint influences of base price anchoring and surcharge salience over a range of RSM values suggests that H1a is true for some range of the data, followed by an inflection point, and then H1b is true for the subsequent range of the data. Therefore, we keep in mind the RSM range in Study 2 as we investigate this relationship deeper and attempt to identify conditions under which base price anchoring and surcharge salience dominate as the underlying mechanisms.

The positive effect of shipping fee magnitude is consistent with the work of Cheema (2008), who found a positive effect of shipping fee magnitude on WTP for moderate- and high-reputation eBay sellers, ostensibly because eBay buyers discounted their WTP to account for surcharges from low-reputation sellers, but not from moderate- and high-reputation sellers. This is also consistent with the findings of Hossain and Morgan (2006), who found that higher shipping fees led to higher revenue on eBay, and speculated that the resulting lower opening bids resulted in more competitive bidding. However, in our analysis, we control for opening bid, so

the positive effect of shipping fee on WTP suggests that buyers might be incompletely adjusting for the surcharge. At the same time, it is possible that the positive effect of shipping fee on WTP might be driven by quality inferences about the efficacy of the shipping service, but we do not have data on this, so we examine this potential explanation further by including a control measure in Study 2.

Of the control variables, the positive relationship between opening bid and total price was inconsistent with the work of Hossain and Morgan (2006), which showed that lower opening bids increase revenue. However, a confound in their study is that it is unclear whether their findings were due to opening bid or shipping surcharge because these two values always summed up to the auction reserve price of $8, leading to a consistent negative correlation.

Additionally, although we found evidence for H1a, it is important to note that the only other papers (Cheema 2008; Hossain and Morgan 2006) to have found a positive effect of SM on preference also use eBay auction data. This suggests that there might be something unique about the eBay setting that makes surcharges less salient, leading to a less dominant influence of the surcharge salience mechanism and a more dominant influence of the base price anchoring mechanism. However, we are unable to examine this issue further as we don't have measures of attention. Therefore, in Study 2, we begin studying the role of attention in surcharge processing by using a self-reported measure, and we attempt to rule out alternative explanations such as the one based on expected efficacy of the shipping service.

Finally, although we found evidence for H1a, the results varied by category. This is not surprising as there are differences across each of these categories in terms

of factors such as market price, average RSM, and the nature of the category (e.g., hedonic vs. utilitarian). Therefore, in Study 2, we also eliminate the role of category-level differences by using a single product category.

Study 2: Exploration of Base Price Anchoring versus Surcharge Salience

Participants and Procedure

Two hundred and fourteen participants were randomly assigned to the conditions of an eight-level (SM: 5%, 10%, 15%, 20%, 25%, 30%, 35%, and 40%) between-subjects experimental design. We used eight SM levels in order to provide a wide range of SM for the dual influences of base price anchoring and surcharge salience to occur, similar to the SM range for the blu-ray trilogy in Study 1. Data collection was undertaken in two phases. In the first phase, 169 participants (the number of students in one week of research sessions, which was predetermined as the time-frame for data collection) were randomly assigned to all eight conditions and data collection stopped at the end of the week. Preliminary analyses led to the identification of four conditions (5%, 15%, 25%, and 35%) that were most likely to demonstrate the joint influences of base price anchoring and surcharge salience. Therefore, in the second phase, 45 participants (the number of students in one day of research sessions, which was predetermined as the time-frame for additional participants) were randomly assigned to these four conditions to increase the sample size, and data collection stopped at the end of the day. However, our final analyses take into account all eight conditions despite the uneven cell sizes.

Participants were asked to imagine that they were making an online purchase of a coffee-table book from a seller on Amazon.com's online marketplace.

Participants then saw a partitioned price presentation with a base price for the book and a surcharge for standard shipping such that the total price always summed to $57.82. Table 9 contains the details of base price and surcharge values for all eight conditions.

TABLE 9

STUDY 2: BASE PRICE AND SURCHARGE VALUES

SM	**5%**	**10%**	**15%**	**20%**	**25%**	**30%**	**35%**	**40%**
Base price	$55.07	$52.56	$50.28	$48.14	$46.25	$44.48	$42.83	$41.30
Surcharge	$2.75	$5.26	$7.54	$9.64	$11.56	$13.34	$14.99	$16.52

Next, participants responded to measures of purchase intention, offer evaluation, attitude towards the seller, clarity of pricing information, recalled total price, details of how total price was recalled, confidence in recalled total price, recalled surcharge, confidence in recalled surcharge, attention to the surcharge, positive and negative mood, surcharge fairness, perceived surcharge magnitude, shipping quality, typicality of a single price, typicality of a partitioning, and experience purchasing books online. As the second offer evaluation item was reverse-coded, it did not correlate well with the other two items (r = -.21 and -.09 vs. .77 between the first and third items) and reduced overall scale reliability. Therefore, we averaged only the first and third items to also create a two-item offer evaluation scale (r = .77). Table 10 lists the dependent measures for Study 2.

TABLE 10

STUDY 2: DETAILS OF DEPENDENT MEASURES

Measure
Purchase intention (*r* = .93) How likely are you to purchase the book from this seller? (*1 = very unlikely; 7 = very likely*) How probable is it that you will purchase the book from this seller? (*1 = very improbable; 7 = very probable)*
Offer evaluation (*r* = .77) The overall deal is: (*1 = not at all attractive/very unfair; 7 = very attractive/very fair)* Not included in scale – The overall deal is: (*1 = very desirable; 7 = very undesirable)*
Attitude towards the seller (α = .89) The seller is trustworthy/reliable/honest/transparent about providing information. (*1 = strongly disagree; 7 = strongly agree*)
Clarity of pricing information (*r* = .64) The pricing information is trustworthy/transparent. (*1 = strongly disagree; 7 = strongly agree*)
Recalled total price Please recall from memory the exact total price for the book in dollars and cents (inclusive of all charges).
Recall details Please use a couple of lines to provide some details about how you recalled the total price for the book.
Recalled total price confidence How confident are you about the total price you recalled for the book? (*1 = not at all confident; 7 = very confident*)
Recalled surcharge Please recall the exact price for the shipping surcharge (in dollars and cents).
Recalled surcharge confidence How confident are you about the price you recalled for the shipping surcharge? (*1 = not at all confident; 7 = very confident*)
Attention to surcharge How much attention did you pay to the shipping surcharge when you evaluated the overall offer? (*1 = very little attention; 7 = a lot of attention*)
Positive mood Please indicate to what extent you currently feel the following emotions: interested/proud/attentive. (*1 = very slightly or not at all; 2 = a little; 3 = moderately; 4 = quite a bit; 5 = extremely*)
Negative mood Please indicate to what extent you currently feel the following emotions: upset/hostile/irritable. (*1 = very slightly or not at all; 2 = a little; 3 = moderately; 4 = quite a bit; 5 = extremely*)
Surcharge fairness (*r* = .96) Please rate the fairness of the price for the shipping surcharge/How fair was the price for the shipping surcharge? (*1 = very unfair; 7 = very fair*)
Perceived surcharge magnitude (*r* = .65)

Measure
How would you rate the price for the shipping surcharge/Please rate the magnitude of the price for the shipping surcharge? (*1 = very low; 4 = moderate; 7 = very high*)
Shipping quality
In your opinion, the quality of service for the shipping is likely to be: (*1 = very low; 7 = very high*)
Typicality of a single price
In your opinion, how typical is it that Amazon.com's online marketplace quotes a single price that includes a shipping surcharge? (*1 = not at all typical; 7 = very typical*)
Typicality of partitioning
In your opinion, how typical is it that the price of a book on Amazon.com's online marketplace has a separate shipping surcharge? (*1 = not at all typical; 7 = very typical*)
Experience purchasing books online
How much experience do you have purchasing books online? (*1 = no experience at all; 7 = a lot of experience*)

Examination of the data revealed the presence of a potential outlier that might be skewing the results: one of the participants recalled a total price of $155 in the 35% SRM condition (the next highest recalled total price was only $68.3 as against the actual total price of $57.82). Therefore, we excluded this participant from our analyses. Due to other missing data, degrees of freedom vary across some measures. Table 11 contains the means of the dependent measures:

TABLE 11

STUDY 2: MEANS OF DEPENDENT MEASURES

Measure	**5%**	**10%**	**15%**	**20%**	**25%**	**30%**	**35%**	**40%**
Purchase intention	3.65	3.90	4.06	3.15	3.22	3.90	2.83	2.73
Offer evaluation (2-item)	3.38	3.45	3.92	2.90	2.73	3.75	2.78	2.36
Seller trust	4.56	4.43	4.54	4.36	4.38	4.45	4.19	4.18
Pricing clarity	5.41	5.15	5.52	5.10	5.03	5.50	5.19	5.11
Recalled total price ($57.82)	$57.21	$57.43	$56.81	$55.84	$54.64	$56.94	$56.61	$55.91
Confidence in recalled total price	4.85	4.90	4.65	4.65	4.13	4.35	3.84	4.41
Recalled shipping fee	$2.72	$5.16	$6.97	$9.11	$11.47	$13.46	$14.46	$16.49
Confidence in recalled shipping fee	4.76	4.80	4.23	4.00	4.25	4.55	4.91	4.77
Attention to surcharge	4.79	5.70	5.48	4.60	5.88	5.85	5.63	6.05
Positive mood	6.91	7.40	7.03	6.90	6.78	6.60	5.59	5.32
Negative mood	5.33	5.20	4.10	4.65	4.88	5.40	4.88	5.32
Surcharge fairness	6.00	5.08	4.40	3.58	2.97	3.15	2.39	2.14
Surcharge magnitude	3.35	4.30	4.71	4.68	5.16	5.23	4.88	6.02
Quality of shipping	3.91	4.65	4.97	5.30	5.31	5.85	5.53	5.09
Typically non-partitioned shipping fee	3.18	3.90	3.58	3.70	3.59	3.35	4.06	3.27
Typically partitioned shipping fee	5.97	5.85	5.87	5.20	4.97	5.75	5.29	5.68
Experience	4.73	5.75	5.13	4.50	3.94	5.20	4.25	5.00

Results

Manipulation checks. A one-way ANOVA on the recalled shipping surcharge revealed an effect of condition ($F(7, 201) = 564.84$, $p < .001$). A planned contrast that was run to test for a linear trend (-7 -5 -3 -1 1 3 5 7) was positive and revealed a significant effect ($F(1, 201) = 3736.04$, $p < .001$), providing evidence of a successful

manipulation. A similar one-way ANOVA on the perceived magnitude of the shipping surcharge revealed an effect of condition ($F(7, 201) = 10.02$, $p < .001$). A planned contrast for the linear trend (-7 -5 -3 -1 1 3 5 7) was positive and revealed a significant effect ($F(1, 201) = 52.21$, $p < .001$), providing further evidence of a successful manipulation.

Purchase intention. A one-way ANOVA on purchase intention revealed an effect of condition ($F(7, 201) = 2.77$, $p < .01$). A planned contrast for the linear trend (-7 -5 -3 -1 1 3 5 7) was negative and revealed a significant effect ($F(1, 201) = 6.76$, $p < .05$), providing support for H1b, but not for H1a. A planned quadratic contrast that was used to test for the joint influence base price anchoring and surcharge salience did not reveal a significant effect ($p > .59$).

Offer evaluation. A one-way ANOVA on the two-item measure of participants' offer evaluation revealed an effect of condition ($F(7, 201) = 3.46$, $p < .01$). A planned contrast for the linear trend (-7 -5 -3 -1 1 3 5 7) was negative and revealed a significant effect ($F(1, 201) = 11.50$, $p < .01$), providing support for H1b, but not for H1a. The planned contrast that was used to test for the joint influence of base price anchoring and surcharge salience did not reveal a significant effect ($p > .49$). Using a preference measure that was created by averaging offer evaluation and purchase intention led to similar results as on the purchase intention and offer evaluation measures.

Recalled total price. A one-way ANOVA on the recalled total price did not reveal a significant effect ($p > .44$), and planned contrasts for a linear trend (-7 -5 -3 -1 1 3 5 7) and the joint influence of base price anchoring and surcharge salience did

not reveal any significant effects either (*p*s > .18). We return to this result in the discussion.

Attention to the surcharge. A one-way ANOVA on participants' self-reported measure of the attention that they paid to the surcharge revealed an effect of condition ($F(7, 201) = 2.96$, $p < .01$). Supportive of H2, the planned contrast for a linear trend (-7 -5 -3 -1 1 3 5 7) was positive and revealed a significant effect ($F(1, 201) = 7.81$, $p < .01$).

Control measures. One-way ANOVAs on attitude towards the seller, clarity of pricing information, confidence, negative mood, and typicality of presenting a single price did not reveal significant effects (*p*s > .35), ruling these out as explanations for the observed effects. One-way ANOVAs on some of the other control measures revealed significant effects. The positive mood scale revealed an effect ($F(7, 201) = 2.21$, $p < .05$) as did perceived fairness ($F(7, 201) = 26.33$, $p < .001$), perceived shipping quality ($F(7, 201) = 5.40$, $p < .001$), typicality of presenting a separate surcharge ($F(7, 201) = 2.01$, $p < .06$), and experience ($F(7, 201) = 2.41$, $p < .05$).

Base price anchoring vs. surcharge salience. Based on a visual examination of the cell means, there appears to be a positive trend for purchase intention and offer evaluation in the 5% to 15% conditions, and a negative trend in the 30% to 40% conditions so, in order to more clearly identify conditions under which H1a might be true and conditions under which H1b might be true, we ran post hoc contrasts (-1 0 1 0 0 1 0 -1) on both these measures. Both contrasts were significant ($F(1, 206) = 8.92$ and 8.17, *p*s = .003 and .005), supporting the joint influence of base price anchoring and surcharge salience at different levels of SM.

To isolate these levels furthers, we excluded the 20% and 25% cells and then ran 2 (SM level: low, high i.e. RSM <= 15%, RSM >= 30%) × 3 (RSM: baseline, + 5%, + 10%) ANOVAs on purchase intention and offer intention. Both ANOVAs revealed main effects of SM level ($F(1, 155) = 4.14$ and 7.93, ps = .04 and .006) and an interaction between SM level and RSM ($F(1, 155) = 4.07$ and 4.06, ps = .02 and .02). Purchase intention and offer evaluation were higher when SM level was low than when it was high (Ms = 3.61 vs. 2.97 and 3.87 vs. 3.14), and planned quadratic contrasts also revealed the joint influence of base price anchoring and surcharge salience ($F(5, 155) = 2.80$ and 3.77, ps = .02 and .003), suggesting that base price anchoring is the dominant mechanism at lower SM levels and that surcharge salience is the dominant mechanism at higher SM levels.

Discussion

The purpose of the current study was to attempt to replicate the findings of Study 1 with shipping surcharges, but in a more controlled, non-confounded, experimental setting. Although there was support for H1b on offer evaluation, there was no direct support for H1a, which appears inconsistent with the findings from Study 1. However, one way that both H1a and H1b both hold true is that base price anchoring is the dominant underlying mechanism for some range of the data, followed by an inflection point, and then surcharge salience is the dominant underlying mechanism for the subsequent range of the data, making H1a true for some regions of the relationship between SM and preference (at lower SM levels), and H1b true for other regions of the relationship between SM and preference (at higher SM levels).

Although there was no direct support for the dual influences of base price anchoring and surcharge salience, this could be because there is no positive linear trend in this data or because of insufficient power in the sample given some cell sizes were only around 20. This could also be due to the presence of the 20% and 25% SM conditions, which appear to have cell means that are dissonant with the trend demonstrated by the other cell means. To overcome this data limitation, we ran post hoc contrasts and 2 (SM) × 3 (RSM) ANOVAs on purchase intention and offer evaluation, and found support for the dual influences of base price anchoring and surcharge salience, suggesting that H1a is true at lower SM levels, and that H1b is true at higher SM levels.

There was no effect on the price recall measure, which might be because consumers are unable to accurately recall prices that they implicitly use in decision-making (Monroe and Lee 1999). Mediation tests by using Hayes's (2012) PROCESS macro revealed that attention partially mediated the effect of SM on purchase intention, but not on offer evaluation. The effects of SM on purchase intention and offer evaluation were also partially mediated by positive mood and perceived fairness, but not by perceived shipping quality, typicality of presenting a separate surcharge, and experience. The multiple mediating paths might be because consumers are not very good at self-reporting their attention. To overcome this potential limitation, in Study 3, we focus on the effect of SM on attention by providing results from an eye-tracking study that reports physiological measures of attention.

Based on a proposed study in the dissertation proposal, we also reran Study 2 (N = 258) with balanced and larger cell sizes (n ~= 37) for the seven conditions from

5% to 35% RSM. Additionally, we modified the scenario to be more relevant to undergraduate students (a limited-edition book with high-resolution photographs of the paintings that they would be studying in an art class), and we also modified all three measures for offer evaluation to not be reverse-coded. Linear contrasts were supportive of H1b ($F(6, 248) = 2.86$, 2.97, and 3.12 for purchase intention, offer evaluation, and preference; ps = .01, .008, and .006 respectively) and of H2 ($F(6, 248) = 5.80$ for self-reported attention to the surcharge, $p < .001$), but not of H1a. Additionally, a quadratic contrast (-1 0 1 0 1 0 -1) was not significant ($p > .74$, .91, and .92 for purchase intention, offer evaluation, and preference respectively), indicating lack of support for the joint influence of base price anchoring and surcharge salience. Therefore, we do not report this study in greater detail in this essay. The lack of evidence for H1a might be because undergraduate students reacted negatively to the shipping surcharge in this scenario, which is consistent with the phenomenon of shipping-charge skepticism (Schindler, Morrin, and Bechwati 2005). Therefore, we are rerunning this study with the same scenario, but with the secondary component being a CD-ROM containing analysis of the paintings rather than shipping.

Study 3: Eye-Tracking Study

In this study, we analyzed eye movements to test H2, which relates to the role of attention when surcharges are low vs. high. Eye movements are classified as *saccades*, which are movements of the eye from one position on the screen to the next, and *fixations*, during which time the eye is focused at a particular position on the screen (Rayner 1998). Fixations are the period during which attention is paid to

stimuli, wherein elements of a stimulus are projected onto the fovea for detailed processing (Pieters and Wedel 2007). *Fixation count* refers to the number of times the fovea is fixated on a stimulus element (Henderson, Weeks, and Hollingworth 1999), and this was our eye-tracking measure of attention. Fixation count can be calculated to include refixations as a single fixation, which reduces the divergence across conditions that might vary in terms of fixation count and which we used because it was a more conservative measure.

Participants and Procedure

This study used Tobii 1750 infrared eye-tracking equipment (www.Tobii.com). Sample size was predetermined as the number of participants who could do the study in two weeks of research sessions. One hundred and two participants (99% male, M_{age} = 20.3 years) were randomly assigned to the five conditions of a 2 (SM: low, high) × 2 (presence of total price: absent, present) + 1 (control: non-partitioned price) between-subjects design that was fully crossed with product category (10 levels) as a within-subject factor. Although we did not hypothesize about the role of presence of total price, we included this factor to see if it had a role to play as suggested by prior research (e.g., Carlson and Weathers 2008) and by the meta-analysis. Additionally, although data were collected for the non-partitioned condition as this was originally meant to be an exploratory study, the analyses of interest do not include these data as they are not relevant to the hypotheses. However, we report the means for the non-partitioned condition on the key dependent measures, and note that they were not significantly different from the means for the other conditions.

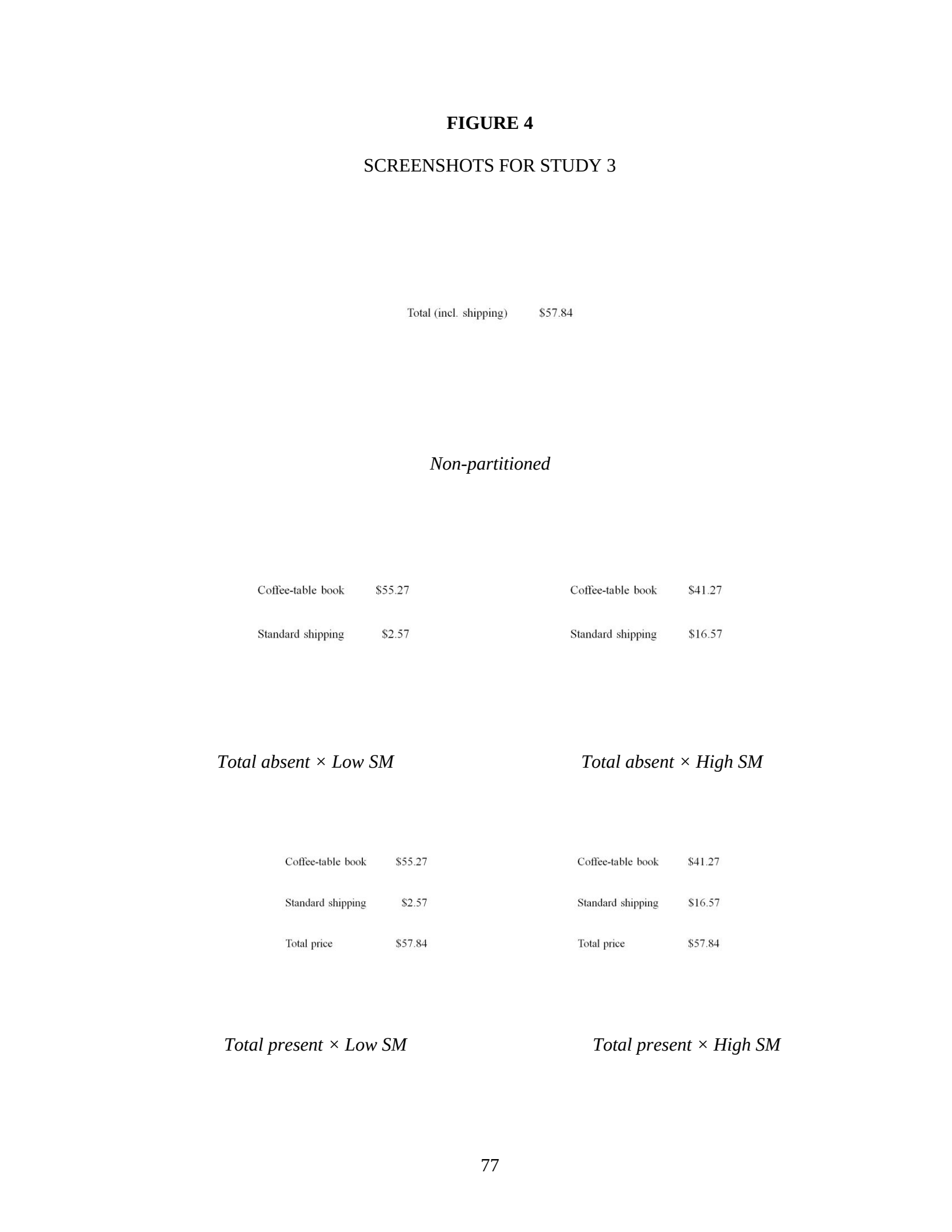
Participants sat in front of a Tobii monitor with cameras embedded in its perimeter. The cameras tracked the position of participants' eyes by measuring the position of the fovea multiple times every second. The task began with a calibration exercise to calibrate participants' eyes, followed by instructions informing participants that they would be presented with product information and that they should go through the information presented as if they were considering purchasing the products. The computer screen then presented information about a purchase scenario for purchasing a book online.

Participants navigated to the next screen by pressing the space bar on the keyboard. This screen contained pricing information about the book base price and the shipping surcharge, and participants had to navigate to the next screen by pressing the space bar on the keyboard. This screen then directed participants to the paper-based questionnaire.

As participants reviewed the stimuli on the screen, the Tobii monitor tracked their eye movements, allowing us to compute unobtrusive measures of attention such as fixation count, which allow us to track how much the fovea is fixated on a particular stimulus element. Figure 4 contains screenshots of the pricing information screen across all five between-subjects conditions for one product category.

FIGURE 4

SCREENSHOTS FOR STUDY 3



The paper-based questionnaire obtained ratings of participants' evaluation of the offer on the screen and their purchase intentions, similar to the measures that were used in Study 2, but with each product category being referenced in the measures, with nine-point rather than seven-point scales, and without any reverse-coded items. The paper-based questionnaire then directed participants back to the computer screen. In a similar manner, participants were presented information about nine other purchase scenarios and provided responses for each product. The 10 within-subject product categories were: online book and shipping fee, flight ticket and in-flight entertainment, camera and battery, textbook and software, concert ticket and service charge, car bumper and installation fee, NFL game ticket and valet parking fee, pizza and delivery fee, hotel and housekeeping fee, and computer and Windows.

In the low SM conditions, surcharge levels were selected so that, depending on the product category, RSM was between 3% and 12% and, in the high SM conditions, surcharge levels were selected so that RSM was between 20% and 75%. These levels were selected based on the results of Study 2, so that we would be able to test the positive effect of SM on attention and the negative effect of SM on preference, but also so that the surcharges were ecologically valid. All 10 product categories in a condition belonged to the same cell of our 2 × 2 + 1 experimental design. For example, participants in the low SM × total price absent condition saw 10 purchase scenarios in which the SM was low and the total price was absent. For the ninth and tenth product categories (hotel and desktop computer), we also obtained participants' estimates of the total price as recalled from memory; we did not obtain this measure for the earlier categories so as to avoid demand effects due to

participants paying unnatural attention to the pricing information because they knew that they would be asked to recall it. After the tenth set of screens and paper-based ratings, participants rated on nine-point scales (for all 10 categories) the typicality of partitioning (how typical it was for the surcharge to be partitioned out of the total price) and familiarity with the prices for products in the category.

Areas of Interest

In the partitioned conditions, each price information screen had an Area of Interest (AoI): the surcharge. The eye-tracking data set was created by obtaining fixation count for the surcharge in each product category. For the purpose of obtaining the eye-tracking data, AoIs were defined by the smallest rectangle that could contain all the text associated with each surcharge plus a buffer displacement of 50 pixels above and below the rectangle and 35 pixels to the left and right of the rectangle to account for potential sources of error in the eye-tracking equipment that relate to viewing angle inaccuracies of up to half a degree, leading to AoI height of 134 pixels.

Table 12 contains the means of the key dependent measures for Study 3.

TABLE 12

STUDY 3: MEANS OF KEY DEPENDENT MEASURES

Category	**Purchase intention**					**Offer evaluation**					**Fixation count**			
Total price	**NP**	**Absent**		**Present**		**NP**	**Absent**		**Present**		**Absent**		**Present**	
SM		**Low**	**High**	**Low**	**High**		**Low**	**High**	**Low**	**High**	**Low**	**High**	**Low**	**High**
Book shipping	4.1	4.2	4	4.5	4.1	4.4	5.3	4.4	5	5	2	2.7	2.1	2.8
Flight entertainment	6.0	6.9	6.2	6.3	5.5	6.4	6.9	6	6.3	5.9	2.7	3.3	2.4	3.2
Camera battery	7.1	6.1	5.6	6.5	6.6	7.6	6.9	6.2	7	7	2.2	2.2	1.8	2.3
Textbook software	7.0	6.4	6.3	6.8	6.9	4.3	4.8	4.4	4.4	4.6	1.9	2.1	1.7	2.2
Concert service charge	3.4	4.6	3.6	4.9	4.2	4.5	5.5	4.2	5.4	4.5	1.5	1.9	1.3	2.8
Bumper installation	7.9	7.9	7.7	7.5	7.6	7.4	7.1	7.1	7.2	7	1.7	2	1.9	2.6
NFL game parking	7.3	6.6	6.5	7	6.6	7.4	7.2	6.6	7.3	6.5	1.9	2.5	2	2.8
Pizza delivery	6.4	6.9	6.6	6.8	5.5	6.3	6.4	6.1	6.8	5.5	1.7	1.8	1.6	3.8
Hotel housekeeping	5.7	6.5	4.9	4.8	5.4	5.1	5.4	4.6	4.5	4.7	1.7	2	1.8	3.1
Computer OS	4.9	4.9	4.8	5.3	5.6	5.5	5.3	5.3	5.6	5.8	3.1	4.3	2.2	4.1

Results

Purchase intention and offer evaluation. A 10 (category) × 2 (SM) × 2 (presence of total price) mixed ANOVA on purchase intention revealed only a main effect of category ($F(9, 675) = 26.91$, $p < .001$). Purchase intention was higher when SM was low ($M = 6.06$) than when it was high ($M = 5.70$), but the difference was not significant ($p = .17$) and no other effects were significant either (ps > .11). However, the same 10 × 2 × 2 mixed ANOVA on offer evaluation revealed main effects of category ($F(9, 675) = 28.46$, $p < .001$) and SM ($F(1, 75) = 6.87$, $p = .01$). No other effects were significant (ps >= .31). Consistent with H1b, but not with H1a, offer evaluation was higher when SM was low ($M = 6.01$) than when it was high ($M = 5.56$). Using a preference index, which was an average of the individual purchase intention and offer evaluation items, led to similar results as on offer evaluation.

Eye-tracked attention. The same 10 × 2 × 2 mixed ANOVA on fixation count for the surcharge revealed main effects of category ($F(9, 684) = 7.83$, $p < .001$) and SM ($F(1, 76) = 13.41$, $p < .001$), and a marginal interaction between SM and presence of total price ($F(1, 76) = 2.88$, $p = .09$). No other effects were significant (ps >= .11). Consistent with H2, fixation count was higher when SM was high ($M = 2.71$) than when it was low ($M = 1.95$). The interaction between SM and presence of total price was due to a stronger effect of SM when the total price was present ($F(1, 41) = 10.50$, $p = .003$; Ms = 2.97 and 1.86) versus absent ($F(1, 41) = 2.72$, $p = .11$; Ms = 2.46 and 2.05).

Although we did not have a hypothesis about attention to the base price, attention to the base price should be higher when the total price is absent, so we

computed AoIs for the base prices and repeated the same 10 × 2 × 2 mixed ANOVA on fixation count for the base price. The analysis revealed main effects of category ($F(9, 684) = 7.23$, $p < .001$), presence of total price ($F(1, 76) = 5.88$, $p = .02$), and SM ($F(1, 76) = 9.26$, $p = .003$). Consistent with our expectations, fixation count was higher when the total price was absent ($M = 3.0$) than when it was present ($M = 2.5$). Fixation count was also higher when SM was high ($M = 3.1$) than when it was low ($M = 2.4$), perhaps because the larger SM led participants to process not just the surcharge, but also the base price in greater detail.

The same mixed ANOVA on gaze duration (Pieters and Wedel 2007) for the surcharge yielded similar results as fixation count, but without the interaction between SM and presence of total price. Finally, the same mixed ANOVA on gaze duration for the base price yielded similar results as fixation count, but there were also additional interactions between category and presence of total price and between category and SM.

Control measures. The same 10 (category) × 2 (SM) × 2 (presence of total price) mixed ANOVA on typicality revealed only a main effect of category ($F(9, 675) = 55.38$, $p < .001$) and a marginal interaction between presence of total price and SM ($F(1, 75) = 2.81$, $p < .098$), and the same mixed ANOVA on familiarity revealed only a main effect of category ($F(9, 675) = 30.08$, $p < .001$), suggesting that these variables could not explain the results on offer evaluation and attention to the surcharge due to the lack of a main effect of SM. Finally, a 2 (category) × 2 (SM) × 2 (presence of total price) mixed ANOVA on recalled total price revealed a main effect of category ($F(1, 72) = 2095.81$, $p < .001$) and a marginal interaction between

category and presence of total price ($F(1, 72) = 3.20$, $p < .078$). However, the lack of an effect of SM suggests that this variable cannot explain the effects on offer evaluation and attention to the surcharge either.

Discussion

The purpose of the current study was to attempt to replicate the negative effect of SM on preference and the positive effect of SM on attention as in Study 2, but with a physiological measure of attention. Consistent with Study 2, there is support for H1b on offer evaluation and for H2 on fixation count, a physiological measure of attention. Although there was no effect of SM on purchase intention, the effect was in the expected direction ($p = .17$), and likely lacked significance due to low power in the sample given the cell size of approximately 20. Additionally, unlike in Study 2, mediation tests by using Hayes's (2012) PROCESS macro did not reveal support for mediation by attention to the surcharge, although this might be because the eye-tracking fixation count and the paper-based offer evaluation are measured by using different methods, reducing the likelihood of mediation as compared to using only paper-based measures as in Study 2.

Based on a proposed study in the dissertation proposal, we reran Study 3 ($N = 129$) with female participants also participating, no non-partitioned condition, modified SMs for two product categories, counterbalanced order for these two categories, and recalled price measures added for these two categories. Supporting H2, the results from this study revealed a marginal positive effect of SM on fixation count for the surcharge ($F(1, 125) = 3.20$, $p = .08$; Ms = 2.75 vs. 2.31), but this was qualified by an interaction between category and SM ($F(9, 1125) = 3.842$, $p < .001$).

Additionally, there was no main effect of SM on purchase intention or offer evaluation ($p > .83$ and .54 respectively), although there were interactions between category and SM, indicating no support for either H1a or H1b. Therefore, we do not report this study in greater detail in the current essay.

General Discussion

The extant literature on partitioned pricing and surcharges suggests multiple mechanisms for the effect of SM on preference: an upward sloping relationship due to anchoring on lower base prices, a downward sloping relationship due to increased surcharge salience, and an inverted U-shaped relationship due to the joint effects of the two previously mentioned mechanisms. Extant empirical evidence is mixed, with strong support for a downward sloping relationship and some support for an upward sloping relationship so, in this essay, we attempted to pit these competing mechanisms against each other and to identify conditions under which one mechanism might be more dominant than the other.

Consistent with prior research that has shown a positive effect of eBay shipping fee on WTP (Cheema 2008; Hossain and Morgan 2006), Study 1 found a positive effect of shipping fee on WTP for eBay data across multiple product categories, and a category-specific analysis revealed evidence of the dual influences of base price anchoring and surcharge salience for the blu-ray trilogy. Study 2, on the other hand, used a more controlled, experimental setting and found a positive effect of SM on self-reported attention to the surcharge, and a negative effect of shipping fee on purchase intention and offer evaluation, consistent with the surcharge salience account for the effect of SM on preference. To the best of our knowledge, this is the

first paper in the partitioned pricing literature that explicitly investigates the role of attention in surcharge processing, and mediation testing showed attention to be a partial mediator of the effect of SM on purchase intention.

Although planned contrasts in Study 2 did not reveal the dual influences of base price anchoring and surcharge salience, the pattern of means suggests that base price anchoring is likely to dominate as a mechanism at lower SMs, till an inflection point, after which surcharge salience is likely to dominate as a mechanism. Subsequent post hoc analyses confirmed this inference, with post hoc contrasts providing support for the dual influences of base price anchoring and surcharge salience at different levels of SM. Finally, Study 3 used eye-tracking and again showed that SM had a positive effect on attention and a negative effect on offer evaluation. To the best of our knowledge, this is the first use of eye-tracking to demonstrate effects on attention in partitioned pricing.

Alternative Mechanisms

Other mechanisms that may explain when one influence dominates the other might be based on the pain of paying or chaos theory. The pain of paying suggests that consumers don't like paying for purchases (Prelec and Loewenstein 1998), and motivated consumers may focus on surcharges (as they are usually smaller than base prices) in order to lessen the pain of paying that is associated with salient pricing information. This implies that surcharge salience may be a more dominant underlying mechanism due to greater motivated processing for purchases that require a justification for the price paid, such as luxuries (vs. necessities) or hedonic purchases (vs. utilitarian purchases).

Chaos theory suggests that small initial differences result in dynamic systems having drastically different end states (Kellert 1993; Lorenz 1962). Applying chaos theory to partitioned pricing suggests that the determination of when the base price anchoring and surcharge salience accounts dominate is not easily testable because small differences due to price recall biases can have drastic impacts. As chaos theory suggests the same end states as base price anchoring or surcharge salience, it is not possible to empirically rule this out as an underlying mechanism. However, we note that chaos theory is more relevant to the study of dynamic systems, which evolve over time, rather than to the study of experimental systems with an intervention-based cause-and-effect structure, implying that chaos theory might be less relevant in the current context.

The Role of Attention

Both Study 2 and Study 3 suggest that one mechanism through which SM operates is attention. However, it is not yet clear whether the mechanism is via grasping attention or retaining attention. Attention grasped is primarily a function of stimulus salience whereas attention retained is primarily a proxy for the amount of processing involving a stimulus, and can be driven by mechanisms such as surcharge fairness and surcharge evaluation. The self-reported measure of attention does not distinguish between these two types of attention, and the eye-tracked measure of fixation count is also likely to take into account the attention-grasping and attention-retaining roles at play. However, the eye-tracked measure of time to first fixation is a good indicator of attention-grasping, and our analysis of this measure from the Study 3 dataset reveals a different pattern of effects to fixation count, suggesting that the

effects on offer evaluation are driven by attention-retaining rather than by attention-grasping. Future research might more explicitly tease apart these two potential roles of attention.

Given the role of attention in the effects demonstrated in this paper, future research might also investigate other factors that affect the amount of attention paid to stimuli. One such factor would be the typicality of partitioning a surcharge, which was defined in Chapter 2 as the degree to which partitioning a surcharge is the norm for a particular product category. We expect that typical surcharges do not attract undue attention because they are consistent with people's expectations whereas atypical surcharges might attract more attention (Lynch and Srull 1982). Therefore, as stated in Appendix 3, we predict that we will continue to see the effect of SM on preference for typical surcharges, but that the effect will be attenuated for atypical surcharges. Appendix 4 contains the details of studies that we ran to test this prediction, based on a proposed study in the dissertation proposal. However, we are not including these studies in the main body of this essay due to inconsistent results.

Limitations and Future Research

Auctions vs. fixed-price contexts. One concern with the inferences from the results in this essay revolves around the differences between auctions and fixed-price contexts. The original Morwitz, Greenleaf, and Johnson (1998) paper on partitioned pricing had two experiments, one of which was in an auction context. Therefore, although there are differences between auctions and fixed-price contexts, previous research has examined both as contexts in which partitioned pricing effects might be at play, and we continue in this tradition.

However, we acknowledge one potential difference between the contexts: surcharges are likely to be less salient in auctions, suggesting an inherent likelihood of stronger evidence for base price anchoring in auctions. In reality, surcharge salience may vary within an auction context and also within a fixed-price context, so any differences between auctions and fixed-price contexts are more likely to be driven by surcharge salience than by the context itself per se.

At the same time, partitioned pricing affects underlying preference in a consistent manner for auctions and fixed-price settings; the commonality is clearer when one considers a bidder's approach to auctions. A bidder sees an item and usually has a reference price for the item under auction. The bidder may then adjust upward or downward from the reference price based on what she is willing to pay and what she thinks other bidders might bid. After adjusting upward or downward, the bidder arrives at a winning bid that she decides to enter into the auction mechanism. At this point, as previous research suggests (Cheema 2008; Hossain and Morgan 2006), it appears as if bidders do not completely process the shipping fee or else they would adjust their winning bid downwards, so that there would be no effect of shipping fee on overall WTP (winning bid + shipping fee). This incomplete processing and its consequences are consistent with the base price anchoring mechanism that underlies partitioned pricing. Therefore, although auctions might differ from fixed-price contexts, partitioned pricing operates in a consistent manner across both contexts, allowing us to draw general inferences from studying the phenomenon in both contexts.

Inter-category differences in Study 1. Another concern with Study 1 is that the results varied across categories. The category-level average RSM values suggest that the differences might be because of different RSM ranges in each category. For example, the RSM ranges for the blu-ray trilogy and the Pokemon card were 2% to 696% and 1% to 300% respectively, suggesting scope for the dual influences of base price anchoring and surcharge salience to manifest themselves (although the smaller upper bound for the Pokemon card might explain why the effect of surcharge salience was not strong enough to lead to a significant coefficient for squared shipping fee). However, the RSM range for the iPod nano was 2% to 14% (with two outliers at 21% and 33%), suggesting insufficient variance in the independent measure for any relationship to manifest itself. Similarly, the RSM range for the halogen light bulb was 40% to 100%, and the regression results lack a coefficient for shipping fee due to insufficient variance in the independent measure.

Other differences across categories that might be driving the results may be because some of the categories were hedonic in nature (e.g., blu-ray trilogy and Pokemon card) and the others were more utilitarian (e.g., halogen light bulb). The pattern of results across categories suggests that the observed relationships between shipping fee and WTP may hold only for hedonic categories. In order to control for these inter-category differences, Study 2 used a single product category (a coffee-table book containing award-winning photographs) that was more hedonic than utilitarian in nature, and we also used the same product category in a replication attempt for Study 2. Additionally, we framed the product category as more utilitarian in another replication attempt in which the book was for an art class on campus.

Unexpected results in Study 2. The results from the Study 2 scenario indicate that base price anchoring dominated as the underlying mechanism till 15% RSM and surcharge salience dominated as the underlying mechanism from 30% RSM onwards, suggesting that the inflection point between these two underlying mechanisms occurred in the 15% to 30% range. Therefore, the unexpected results in the 20% and 25% conditions may be due to the effects of both underlying mechanisms operating almost equally strongly at the same time.

Consistent with the surcharge salience account, if participants more completely process the surcharge, they may have less uncertainty about the surcharge price and, instead of adjusting up from the base price, they may attempt to perform a mathematical addition operation (base price + surcharge) in order to arrive at the total price. However, if base price anchoring is also operating relatively strongly at the same time, the anchoring and adjustment process might provide a different mechanism by which participants attempt to arrive at the total price.

The consequence of these dual mechanisms might be some confusion and uncertainty for participants, which may reduce subsequent preference and intentions. In order to test this possibility, we isolated just the anomalous conditions (20% and 25%), and then checked the correlations between the dependent measures (purchase intention and offer evaluation) and the other measures, especially pricing clarity, confidence in recalled total price, and confidence in recalled shipping fee.

Although these correlations were not significant (ps > .12 and .75 for purchase intention and offer evaluation respectively), the correlations with seller trust (rs = .29 and .40, ps = .03 and .003 for purchase intention and offer evaluation) and surcharge

fairness (*r*s = .53 and .57, *p*s < .001 for purchase intention and offer evaluation) were significant. The significant correlations with surcharge fairness are consistent with the partial mediation by surcharge fairness across all eight conditions, so this is not surprising. However, the significant correlations with seller trust suggest that the potential confusion and uncertainty due to the competing mechanisms may have resulted in lower trust in the seller, which might be driving the anomalous results in the 20% and 25% conditions.

Another possibility is that the specific price levels in the 20% and 25% conditions were more typical or atypical than in the other conditions, which may be driving the anomalous results for these two conditions. From a search of price levels during stimuli design, all surcharge prices were ecologically valid, so they appear to be relatively typical. If the surcharge prices in these two conditions were more typical than in the other six conditions, this would suggest that participants should have paid less attention to them. However, the attention measure reveals that this is not a common explanation for the two conditions (Ms = 4.6 and 5.9 respectively).

Alternatively, if the surcharge prices were more atypical than in the other six conditions, this would suggest that participants should have paid more attention to them (again unsupported as the attention measure varied across the two conditions) and/or also reacted negatively due to violation of an injunctive (fairness) norm. However, surcharge fairness alone does not seem to provide a plausible explanation because purchase intention in the 30% condition was higher than in the 20% and 25% conditions, whereas surcharge fairness for the 30% condition was between the surcharge fairness ratings for the 20% and 25% conditions.

One plausible explanation based on typicality might be related to the typicality of partitioning the surcharge rather than to the typicality of the surcharge price. The typicality of partitioning the shipping fee in this scenario was directionally lower for the 20% and 25% conditions (Ms = 5.2 and 5.0 vs. 5.3 for the next lowest condition), and this relative atypicality of partitioning may have raised attention (unsupported as the attention measure varied across these two conditions) and/or also violated an injunctive (fairness) norm. It is not clear if participants responded to the surcharge fairness measure with this violation in mind (in addition to the surcharge price violating an injunctive norm), but future research might employ distinct measures for fairness of partitioning the shipping surcharge and fairness of the surcharge price in order to explain the unexpected results.

Effect of price level and presentational factors in Study 2. The RSM level for the inflection point between base price anchoring and surcharge salience need not be the same for all product categories, and it may even vary within a product category based on the price level. Changing the price level (e.g., $157.82 or $27.82 instead of $57.82) will result in different RSM levels if we use the same ASMs as were used in Study 2. However, we expect that the observed relationship between SM and preference in Study 2 will hold only for similar RSM levels, suggesting that we would also have to change the ASMs corresponding to the change in price level, so that the new RSM levels are similar to the levels used in Study 2. If price level is changed without changing the ASM levels, the effect on preference would depend on whether price level is increased or decreased: if price level is increased, the new RSM levels would be lower than in Study 2, suggesting that we would be more likely to see

evidence for base price anchoring and, if price level is decreased, the new RSM levels would be higher than in Study 2, suggesting that we would be more likely to see evidence for surcharge salience.

If the presentation format of the surcharge is changed from $ to %, the price recall bias underlying partitioned pricing should be more likely to occur given that the computation of total price will be more cognitively taxing for % surcharges. This should lead to a stronger effect of base price anchoring at all SM levels because, even when surcharge salience is high and the % surcharge is completely processed, converting the % to a $ amount may lead to anchoring and adjustment. Finally, if the total price is provided, the meta-analysis in Chapter 2 suggests a weaker effect of partitioned pricing due to attenuation of the price recall bias, and we expect a similarly attenuated influence of SM on preference through base price anchoring. However, we expect a continued influence of SM on attention to the surcharge through surcharge salience, and a continued influence of SM on preference through surcharge fairness (assuming that an injunctive norm is violated).

Managerial Implications and Conclusion

From a managerial perspective, the role of attention in the effect of SM on preference suggests that salient surcharges are processed more completely and reduce preference. On the other hand, the positive effect of SM on WTP for eBay auctions suggests that SM might have a positive effect on preference when the surcharges are less salient. The lower salience could be due to stimulus characteristics such as low levels of SM (e.g., the 5%, 10%, and 15% conditions in Study 2) and/or due to environmental characteristics such as the eBay auction mechanism resulting in less

salient shipping fees. Therefore, if managers know beforehand that surcharges will be less salient (e.g., low SM levels or typical surcharges such as eBay shipping), preference should be highest if managers make the SM as high as possible subject to the SM itself not increasing salience. On the other hand, if managers know beforehand that surcharges will be more salient (e.g., high SM levels or atypical surcharges such as cell phone Web features), preference should be highest if managers make the SM as low as possible.

In conclusion, we hope that this paper provides some guidance to managers about when to make SMs as high as possible – when the surcharges will not be salient – and when to make SMs as low as possible – when the surcharges will be salient. We also hope that this paper spurs further research on the dual roles of attention – attention-grasping and attention-retaining – as well as on factors such as typicality of partitioning, which might moderate the effect of SM on preference.

Appendices

APPENDIX 1: OBSERVATION DETAILS, EFFECT SIZES, AND WEIGHTS FOR META-ANALYSIS

#	Paper	Study and/or DV	Condition details	HLM group	N	d	Bias-corrected d	Vari-ance	N for weight	Weight	Weight (%)	Weighted, bias-corrected d
1	Albinsson, Burman, and Das (2010)	1, offer value	Low construal level	1	40	-.98	-.96	.11	40	8.96	.26	-.38
2	Albinsson, Burman, and Das (2010)	1, offer value	High construal level	2	45	.20	.20	.09	45	11.19	.33	.10
3	Albinsson, Burman, and Das (2010)	2, offer value	Low construal level	3	33	-1.76	-1.72	.17	33	6.02	.18	-.45
4	Albinsson, Burman, and Das (2010)	2, offer value	High construal level	4	46	-1.18	-1.16	.10	46	9.84	.29	-.50
5	Baghi, Rubaltelli, and Tedeschi (2010)	1, attractiveness	Mp3 player	5	102	-.96	-.96	.04	102	22.88	.67	-.96
6	Baghi, Rubaltelli, and Tedeschi (2010)	2, attractiveness	Breakfast coffee & croissant	6	60	-.81	-.80	.07	60	13.88	.41	-.49

#	Paper	Study and/or DV	Condition details	HLM group	N	d	Bias-corrected d	Vari-ance	N for weight	Weight	Weight (%)	Weighted, bias-corrected d
7	Bambauer-Sachse and Mangold (2010)	1, price attractiveness	Marketer not responsible	7	160	.27	.27	.03	160	39.65	1.16	.46
8	Bambauer-Sachse and Mangold (2010)	1, price attractiveness	Marketer responsible	8	160	-.01	-.01	.03	160	40.00	1.17	-.02
9	Bertini and Wathieu (2008)	1, preference	Good deal	9	103	.40	.39	.04	103	25.26	.74	.43
10	Bertini and Wathieu (2008)	1, preference	Bad deal	10	107	-.46	-.46	.04	107	26.06	.76	-.52
11	Bertini and Wathieu (2008)	3, preference	Good deal, low importance	11	97	.49	.48	.04	97	23.56	.69	.50
12	Bertini and Wathieu (2008)	3, preference	Bad deal, low importance	12	81	-.40	-.39	.05	81	19.87	.58	-.34
13	Bertini and Wathieu (2008)	3, preference	Good deal, high importance	13	86	-.11	-.11	.05	86	21.47	.63	-.10
14	Bertini and Wathieu (2008)	3, preference	Bad deal, high importance	14	86	.05	.05	.05	86	21.49	.63	.04
15	Blanthorne and Roberts (2011)	1, purchase intention	Color option, percentage	15	81	.32	.32	.05	81	19.99	.59	.28
16	Blanthorne and Roberts (2011)	1, purchase intention	Color option, dollar	16	82	.47	.47	.05	82	19.95	.58	.41

#	Paper	Study and/or DV	Condition details	HLM group	N	d	Bias-corrected d	Vari-ance	N for weight	Weight	Weight (%)	Weighted, bias-corrected d
17	Blanthorne and Roberts (2011)	1, purchase intention	Tax, percentage	17	83	.99	.98	.05	83	18.54	.54	.79
18	Blanthorne and Roberts (2011)	1, purchase intention	Tax, dollar	18	81	.46	.45	.05	81	19.75	.58	.39
19	Burman and Biswas (2007)	1, offer value	High NFC, reasonable	19	40.5	1.06	1.04	.11	40.5	8.93	.26	.40
20	Burman and Biswas (2007)	1, offer value	Low NFC, reasonable	20	40.5	-.07	-.07	.10	40.5	10.12	.30	-.03
21	Burman and Biswas (2007)	1, offer value	High NFC, unreasonable	21	41.5	-.74	-.73	.10	41.5	9.73	.29	-.31
22	Burman and Biswas (2007)	1, offer value	Low NFC, unreasonable	22	41.5	.20	.19	.10	41.5	10.33	.30	.09
23	Burman and Biswas (2007)	2, offer value	High NFC, reasonable	23	30	1.29	1.25	.16	30	6.27	.18	.34
24	Burman and Biswas (2007)	2, offer value	Low NFC, reasonable	24	30	-.46	-.45	.14	30	7.31	.21	-.14
25	Burman and Biswas (2007)	2, offer value	High NFC, unreasonable	25	48.5	-1.01	-1.00	.09	48.5	10.79	.32	-.47
26	Burman and Biswas (2007)	2, offer value	Low NFC, unreasonable	26	48.5	-.01	-.01	.08	48.5	12.12	.36	.00
27	Burman and Biswas (2007)	3, offer value	High NFC, reasonable	27	52.5	.95	.93	.08	52.5	11.83	.35	.48
28	Burman and Biswas (2007)	3, offer value	Low NFC, reasonable	28	52.5	-.16	-.16	.08	52.5	13.09	.38	-.09
29	Burman and Biswas (2007)	3, offer value	High NFC, unreasonable	29	45.5	-1.15	-1.13	.10	45.5	9.82	.29	-.48
30	Burman and Biswas (2007)	3, offer value	Low NFC, unreasonable	30	45.5	-.14	-.14	.09	45.5	11.35	.33	-.07

#	Paper	Study and/or DV	Condition details	HLM group	N	d	Bias-corrected d	Vari-ance	N for weight	Weight	Weight (%)	Weighted, bias-corrected d
31	Burman and Biswas (2007)	4, offer value	High NFC, reasonable	31	34.67	1.06	1.04	.13	34.67	7.64	.22	.35
32	Burman and Biswas (2007)	4, offer value	Low NFC, reasonable	32	34.67	.04	.04	.12	34.67	8.67	.25	.01
33	Burman and Biswas (2007)	4, offer value	High NFC, unreasonable	33	34.67	-.91	-.89	.13	34.67	7.89	.23	-.31
34	Burman and Biswas (2007)	4, offer value	Low NFC, unreasonable	34	34.67	.01	.01	.12	34.67	8.67	.25	.00
35	Chakravarti et al. (2002)	1, choice	Combined	35	444	.53	.53	.01	444	107.19	3.14	2.50
36	Chakravarti et al. (2002)	2, choice	Combined	36	512	.44	.44	.01	512	124.96	3.66	2.41
37	Chatterjee (2010)	1, deal value	Low base price, low ship fee, reduced shipping	37	41	.34	.34	.10	41	10.11	.30	.15
38	Chatterjee (2010)	1, deal value	High base price, low ship fee, reduced shipping	38	41	-.17	-.16	.10	41	10.22	.30	-.07
39	Chatterjee (2010)	1, deal value	Low base price, high ship fee, reduced shipping	39	41	-2.21	-2.16	.15	41	6.47	.19	-.61

#	Paper	Study and/or DV	Condition details	HLM group	N	d	Bias-corrected d	Vari-ance	N for weight	Weight	Weight (%)	Weighted, bias-corrected d
40	Chatterjee (2010)	1, deal value	High base price, high ship fee, reduced shipping	40	41	-.69	-.67	.10	41	9.70	.28	-.29
41	Cheema (2008)	2, sign-up likelihood	Low reputation	41	140	-.53	-.53	.03	70	33.81	.99	-.78
42	Cheema (2008)	2, sign-up likelihood	High reputation	42	140	-.15	-.15	.03	70	34.90	1.02	-.23
43	de Faria (2010)	Part A, willingness to purchase	Airport fees and taxes	43	100	-.03	-.03	.04	100	25.00	.73	-.03
44	de Faria (2010)	Part A, willingness to purchase	Admin fee	44	100	-.49	-.48	.04	100	24.29	.71	-.51
45	Hamilton and Srivastava (2008)	2, choice	Shipping	45	156	.09	.08	.03	156	38.96	1.14	.14
46	Hossain and Morgan (2006)	1, revenue	CD	46	20	.73	.70	.21	20	4.71	.14	.14
47	Hossain and Morgan (2006)	1, revenue	Xbox game	47	20	.17	.16	.20	20	4.98	.15	.04
48	Kim (2006)	1, purchase intention	Salient, dollar	48	55	-.58	-.57	.08	55	13.22	.39	-.33
49	Kim (2006)	1, purchase intention	Non-salient, dollar	49	55	.54	.53	.08	55	13.29	.39	.31
50	Kim (2006)	1, purchase intention	Salient, percentage	50	55	.54	.54	.08	55	13.27	.39	.31

#	Paper	Study and/or DV	Condition details	HLM group	N	d	Bias-corrected d	Vari-ance	N for weight	Weight	Weight (%)	Weighted, bias-corrected d
51	Kim (2006)	1, purchase intention	Non-salient, percentage	51	55	.54	.54	.08	55	13.27	.39	.31
52	Kim (2006)	2, purchase intention	Stimulus	52	143	-.34	-.34	.03	71.5	35.24	1.03	-.52
53	Kim (2006)	2, purchase intention	Recall	53	143	.35	.35	.03	71.5	35.22	1.03	.53
54	Lee and Han (2002)	1, brand attitude	External attribution	54	60	-.52	-.51	.07	60	14.52	.43	-.33
55	Lee and Han (2002)	1, brand attitude	Internal attribution	55	57	-.08	-.08	.07	57	14.24	.42	-.05
56	Lee, Choi, and Li (2014)	2, offer price attractiveness	Global info processing	56	99	.46	.45	.04	49.5	24.13	.71	.48
57	Lee, Choi, and Li (2014)	2, offer price attractiveness	Local info processing	57	99	-.13	-.12	.04	49.5	24.70	.72	-.13
58	Lee, Choi, and Li (2014)	3, offer attractiveness	Promotion focus	58	101	.71	.71	.04	50.5	23.76	.70	.74
59	Lee, Choi, and Li (2014)	3, offer attractiveness	Prevention focus	59	101	-.11	-.11	.04	50.5	25.21	.74	-.12
60	Lee, Choi, and Li (2014)	4, offer attractiveness	Promotion focus	60	126	.55	.55	.03	63	30.36	.89	.73
61	Lee, Choi, and Li (2014)	4, offer attractiveness	Prevention focus	61	126	.11	.11	.03	63	31.45	.92	.15
62	Love (2012)	1, choice of low-tier brand	MP3	62	62	-.45	-.45	.07	62	15.12	.44	-.30
63	Love (2012)	2, choice of low-tier brand		63	64.5	-.57	-.57	.06	64.5	15.50	.45	-.38

#	Paper	Study and/or DV	Condition details	HLM group	N	d	Bias-corrected d	Vari-ance	N for weight	Weight	Weight (%)	Weighted, bias-corrected d
64	Love (2012)	2, choice of high-tier brand		64	64.5	.39	.39	.06	64.5	15.83	.46	.27
65	Love (2012)	3, revenue	Low-tier brand	65	134	-.48	-.48	.03	134	32.57	.95	-.68
66	Love (2012)	3, revenue	High-tier brand	66	285	.34	.34	.01	285	70.24	2.06	1.04
67	Morwitz, Greenleaf, and Johnson (1998)	2, recalled cost	Combined	67	183	.37	.36	.02	183	45.00	1.32	.72
68	Muthitacharoen, Zhang, and Gillenson (2013)	1, total price	32 GB	68	376	.00	.00	.01	376	94.00	2.76	.01
69	Muthitacharoen, Zhang, and Gillenson (2013)	1, total price	64 GB	69	376	-.01	-.01	.01	376	94.00	2.76	-.04
70	Pan et al. (2013)	2, purchase intention	Low reputation	70	150	-.42	-.42	.03	150	36.69	1.08	-.67
71	Pan et al. (2013)	2, purchase intention	High reputation	71	150	-.16	-.15	.03	150	37.39	1.10	-.25
72	Redden, Fitzsimons, and Williams (2007)	1, purchase intention	Partitioning is norm	72	84	.34	.33	.05	56	20.71	.61	.30
73	Redden, Fitzsimons, and Williams (2007)	1, purchase intention	Partitioning is not norm	73	84	-.18	-.18	.05	28	20.92	.61	-.16

#	Paper	Study and/or DV	Condition details	HLM group	N	d	Bias-corrected d	Vari-ance	N for weight	Weight	Weight (%)	Weighted, bias-corrected d
74	Redden, Fitzsimons, and Williams (2007)	2, purchase intention	Partitioning is norm	74	308	.16	.16	.01	154	76.74	2.25	.55
75	Redden, Fitzsimons, and Williams (2007)	2, purchase intention	Partitioning is not norm	75	308	-.12	-.12	.01	154	76.86	2.25	-.41
76	Sahay, Mukherjee, and Diwani (2014)	1, offer attractiveness	Combined	76	206	-.44	-.44	.02	206	50.31	1.47	-.96
77	Sahay, Mukherjee, and Diwani (2014)	2, offer attractiveness	Combined	77	169	.33	.33	.02	169	41.68	1.22	.60
78	Schindler, Morrin, and Bechwati (2005)	1, offer liking	Combined	78	182	.15	.15	.02	182	45.37	1.33	.30
79	Sheng, Bao, and Pan (2007)	1, purchase intention	10% surcharge	79	27	.66	.64	.16	27	6.42	.19	.18
80	Sheng, Bao, and Pan (2007)	1, purchase intention	30% surcharge	80	28	.19	.19	.14	28	6.97	.20	.06
81	Sheng, Bao, and Pan (2007)	1, purchase intention	50% surcharge	81	27	-.48	-.46	.15	27	6.57	.19	-.13
82	Sheng, Bao, and Pan (2007)	2, purchase intention	Base price > surcharge	82	51	.08	.08	.08	51	12.74	.37	.05
83	Sheng, Bao, and Pan (2007)	2, purchase intention	Base price < surcharge	83	53	-.64	-.63	.08	53	12.61	.37	-.35
84	Sheng, Bao, and Pan (2007)	3, purchase intention	Unfair surcharge	84	38	-.56	-.54	.11	38	9.16	.27	-.22

#	Paper	Study and/or DV	Condition details	HLM group	N	d	Bias-corrected d	Vari-ance	N for weight	Weight	Weight (%)	Weighted, bias-corrected d
85	Sheng, Bao, and Pan (2007)	3, purchase intention	Fair surcharge	85	39	.42	.41	.10	39	9.55	.28	.17
86	Völckner, Rühle, and Spann (2012)	1, price response of demand	Combined	86	318	.33	.33	.01	318	78.44	2.30	1.12
87	Wang and Lynn (2010)	1, deal evaluation	Percentage, less than 15%	87	88	.49	.49	.05	88	21.36	.63	.46
88	Wang and Lynn (2010)	1, deal evaluation	Percentage, more than 15%	88	239	-.23	-.23	.02	239	59.37	1.74	-.59
89	Xia and Monroe (2004)	1, purchase intention	Combined	89	156	.47	.47	.03	156	37.95	1.11	.78
90	Yao and Zhang (2012)	1, beta of free shipping		90	326	-.22	-.22	.01	326	81.01	2.37	-.78
91	Albinsson, Burman, and Das (2010)	1, purchase intention	Low construal level	1	40	-.84	-.83	.11	40	9.21	.27	-.33
92	Albinsson, Burman, and Das (2010)	1, purchase intention	High construal level	2	45	.13	.13	.09	45	11.23	.33	.06
93	Albinsson, Burman, and Das (2010)	2, purchase intention	Low construal level	3	33	-1.86	-1.81	.17	33	5.85	.17	-.46
94	Albinsson, Burman, and Das (2010)	2, purchase intention	High construal level	4	46	-.72	-.71	.09	46	10.82	.32	-.33

#	Paper	Study and/or DV	Condition details	HLM group	N	d	Bias-corrected d	Vari-ance	N for weight	Weight	Weight (%)	Weighted, bias-corrected d
95	Baghi, Rubaltelli, and Tedeschi (2010)	1, attractiveness	Digital camera	5	102	-.61	-.60	.04	102	24.40	.72	-.64
96	Baghi, Rubaltelli, and Tedeschi (2010)	1, attractiveness	Microwave oven	5	102	-.07	-.07	.04	102	25.48	.75	-.08
97	Baghi, Rubaltelli, and Tedeschi (2010)	1, attractiveness	Laser printer	5	102	.04	.04	.04	102	25.50	.75	.04
98	Baghi, Rubaltelli, and Tedeschi (2010)	2, attractiveness	Movie ticket	6	60	-.64	-.63	.07	60	14.29	.42	-.39
99	Baghi, Rubaltelli, and Tedeschi (2010)	2, attractiveness	Music CD	6	60	-1.01	-1.00	.07	60	13.35	.39	-.58
100	Baghi, Rubaltelli, and Tedeschi (2010)	2, attractiveness	Pizza	6	60	-.81	-.80	.07	60	13.89	.41	-.48
101	Bertini and Wathieu (2008)	1, attractiveness	Good deal	9	103	.36	.35	.04	103	25.35	.74	.39
102	Bertini and Wathieu (2008)	1, attractiveness	Bad deal	10	107	-.33	-.33	.04	107	26.40	.77	-.38
103	Blanthorne and Roberts (2011)	1, recalled price	Color option, percentage	15	74	1.88	1.86	.08	74	12.91	.38	1.05
104	Blanthorne and Roberts (2011)	1, recalled price	Color option, dollar	16	78	1.06	1.04	.06	78	17.16	.50	.78

#	Paper	Study and/or DV	Condition details	HLM group	N	d	Bias-corrected d	Vari-ance	N for weight	Weight	Weight (%)	Weighted, bias-corrected d
105	Blanthorne and Roberts (2011)	1, recalled price	Tax, percentage	17	74	.96	.95	.06	74	16.62	.49	.69
106	Blanthorne and Roberts (2011)	1, recalled price	Tax, dollar	18	75	.62	.61	.06	75	17.90	.52	.48
107	Burman and Biswas (2007)	1, willingness to purchase	High NFC, reasonable	19	40.5	1.42	1.39	.12	40.5	8.16	.24	.49
108	Burman and Biswas (2007)	1, willingness to purchase	Low NFC, reasonable	20	40.5	-.07	-.07	.10	40.5	10.12	.30	-.03
109	Burman and Biswas (2007)	1, willingness to purchase	High NFC, unreasonable	21	41.5	-1.15	-1.13	.11	41.5	8.95	.26	-.44
110	Burman and Biswas (2007)	1, willingness to purchase	Low NFC, unreasonable	22	41.5	.25	.25	.10	41.5	10.30	.30	.11
111	Burman and Biswas (2007)	2, willingness to purchase	High NFC, reasonable	23	30	.87	.84	.15	30	6.89	.20	.25
112	Burman and Biswas (2007)	2, willingness to purchase	Low NFC, reasonable	24	30	-.38	-.37	.14	30	7.37	.22	-.12
113	Burman and Biswas (2007)	2, willingness to purchase	High NFC, unreasonable	25	48.5	-1.11	-1.09	.09	48.5	10.55	.31	-.50
114	Burman and Biswas (2007)	2, willingness to purchase	Low NFC, unreasonable	26	48.5	.08	.08	.08	48.5	12.12	.36	.04

#	Paper	Study and/or DV	Condition details	HLM group	N	d	Bias-corrected d	Vari-ance	N for weight	Weight	Weight (%)	Weighted, bias-corrected d
115	Burman and Biswas (2007)	3, willingness to purchase	High NFC, reasonable	27	52.5	1.37	1.35	.09	52.5	10.69	.31	.63
116	Burman and Biswas (2007)	3, willingness to purchase	Low NFC, reasonable	28	52.5	.22	.22	.08	52.5	13.05	.38	.12
117	Burman and Biswas (2007)	3, willingness to purchase	High NFC, unreasonable	29	45.5	-1.07	-1.05	.10	45.5	9.99	.29	-.46
118	Burman and Biswas (2007)	3, willingness to purchase	Low NFC, unreasonable	30	45.5	.15	.15	.09	45.5	11.34	.33	.08
119	Burman and Biswas (2007)	4, willingness to purchase	High NFC, reasonable	31	34.67	1.83	1.78	.16	34.67	6.20	.18	.48
120	Burman and Biswas (2007)	4, willingness to purchase	Low NFC, reasonable	32	34.67	.50	.49	.12	34.67	8.42	.25	.18
121	Burman and Biswas (2007)	4, willingness to purchase	High NFC, unreasonable	33	34.67	-1.12	-1.09	.13	34.67	7.55	.22	-.36
122	Burman and Biswas (2007)	4, willingness to purchase	Low NFC, unreasonable	34	34.67	.34	.33	.12	34.67	8.55	.25	.12
123	Chatterjee (2010)	1, purchase intention	Low base price, low ship fee, reduced shipping	37	41	-.08	-.08	.10	41	10.24	.30	-.03

#	Paper	Study and/or DV	Condition details	HLM group	N	d	Bias-corrected d	Vari-ance	N for weight	Weight	Weight (%)	Weighted, bias-corrected d
124	Chatterjee (2010)	1, purchase intention	High base price, low ship fee, reduced shipping	38	41	-.34	-.33	.10	41	10.11	.30	-.15
125	Chatterjee (2010)	1, purchase intention	Low base price, high ship fee, reduced shipping	39	41	-3.34	-3.28	.23	41	4.38	.13	-.63
126	Chatterjee (2010)	1, purchase intention	High base price, high ship fee, reduced shipping	40	41	-1.47	-1.45	.12	41	8.13	.24	-.51
127	de Faria (2010)	Part A, offer attractiveness	Airport fees and taxes	43	100	-.23	-.23	.04	100	24.84	.73	-.25
128	de Faria (2010)	Part A, offer attractiveness	Admin fee	44	100	-.36	-.35	.04	100	24.62	.72	-.38
129	Hamilton and Srivastava (2008)	2, choice	Labor	45	156	.32	.32	.03	156	38.50	1.13	.54
130	Hossain and Morgan (2006)	1, number of bids	CD	46	20	1.21	1.15	.23	20	4.29	.13	.22
131	Hossain and Morgan (2006)	1, number of bidders	CD	46	20	.29	.28	.20	20	4.95	.15	.06
132	Hossain and Morgan (2006)	1, number of bids	Xbox game	47	20	-.27	-.26	.20	20	4.96	.15	-.06

#	Paper	Study and/or DV	Condition details	HLM group	N	d	Bias-corrected d	Vari-ance	N for weight	Weight	Weight (%)	Weighted, bias-corrected d
133	Hossain and Morgan (2006)	1, number of bidders	Xbox game	47	20	.65	.62	.21	20	4.77	.14	.13
134	Kim (2006)	2, recalled price	Combined	91	143	1.44	1.44	.04	143	28.41	.83	1.78
135	Lee and Han (2002)	1, % recall error	Combined	92	141	.77	.77	.03	141	32.85	.96	1.10
136	Lee and Han (2002)	1, retailer attitude	External attribution	54	60	-.42	-.41	.07	60	14.68	.43	-.27
137	Lee and Han (2002)	1, retailer attitude	Internal attribution	55	57	-.21	-.20	.07	57	14.18	.42	-.13
138	Lee, Choi, and Li (2014)	3, purchase likelihood	Promotion focus	58	101	.47	.47	.04	50.5	24.57	.72	.51
139	Lee, Choi, and Li (2014)	3, purchase likelihood	Prevention focus	59	101	.13	.13	.04	50.5	25.20	.74	.14
140	Lee, Choi, and Li (2014)	4, purchase likelihood	Promotion focus	60	126	.46	.45	.03	63	30.71	.90	.61
141	Lee, Choi, and Li (2014)	4, purchase likelihood	Prevention focus	61	126	.22	.22	.03	63	31.31	.92	.30
142	Love (2012)	1, choice of low-tier brand	Stereo	62	62	-.26	-.26	.07	62	15.37	.45	-.17
143	Redden, Fitzsimons, and Williams (2007)	1, recalled cost	Combined	93	84	.34	.34	.05	84	20.70	.61	.31
144	Redden, Fitzsimons, and Williams (2007)	2, recalled cost	Combined	94	308	.21	.21	.01	308	76.57	2.24	.71
145	Sheng, Bao, and Pan (2007)	3, attitude	Unfair surcharge	84	38	-.69	-.68	.11	38	8.99	.26	-.27

#	Paper	Study and/or DV	Condition details	HLM group	N	d	Bias-corrected d	Vari-ance	N for weight	Weight	Weight (%)	Weighted, bias-corrected d
146	Sheng, Bao, and Pan (2007)	3, attitude	Fair surcharge	85	39	.10	.10	.10	39	9.74	.29	.04
147	Xia and Monroe (2004)	1, price satisfaction	Combined	89	156	.26	.26	.03	156	38.67	1.13	.44
148	Xia and Monroe (2004)	1, perceived value	Combined	89	156	.26	.26	.03	156	38.68	1.13	.43
149	Xia and Monroe (2004)	1, further search intention	Combined	89	156	.25	.25	.03	156	38.70	1.13	.42
						M = -.02	M = -.02		Total = 12,878.33		Total = 100%	M = .07

APPENDIX 2: INDEPENDENT VARIABLES FOR META-ANALYSIS OBSERVATIONS

Note: (a = common control, b = DV type, c = multiple scale-items, d = no. of variables manipulated, e = published, f = study outside US, g = within-subject, h = year, i = ASM, j = RSM, k = price level, l = surcharge benefit, m = surcharge controllability, n = surcharge format, o = seller reputation, p = total price present, q = typicality of partitioning)

#	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
1	-1	1	1	2	1	-1	-1	10	6.99	4.19	173.99	-1	1	-1	0	-1	1
2	-1	1	1	2	1	-1	-1	0	6.99	4.19	173.99	-1	1	-1	0	-1	1
3	-1	1	1	2	1	-1	-1	10	19.99	12.98	173.99	-1	1	-1	0	-1	1
4	-1	1	1	2	1	-1	-1	10	19.99	12.98	173.99	-1	1	-1	0	-1	1
5	-1	1	-1	2	1	1	-1	10	8.00	5.00	168.00	-1	1	-1	0	-1	-1
6	-1	1	-1	2	1	1	-1	10	.11	4.78	2.41	-1	1	-1	0	-1	-1
7	-1	1	-1	2	-1	1	-1	10	2.50	3.45	75.00	1	-1	-1	0	-1	1
8	-1	1	-1	2	-1	1	-1	10	2.50	3.45	75.00	-1	1	-1	0	-1	1
9	-1	1	-1	2	1	-1	-1	6	10.00	4.88	215.00	1	1	-1	0	-1	-1
10	-1	1	-1	2	1	-1	-1	9	10.00	4.88	215.00	-1	1	-1	0	-1	-1
11	-1	1	1	3	1	-1	-1	9	1.50	17.14	10.25	1	1	-1	0	-1	1
12	-1	1	1	3	1	-1	-1	9	1.50	17.14	10.25	-1	1	-1	0	-1	1
13	-1	1	1	3	1	-1	-1	9	1.50	17.14	10.25	1	1	-1	0	-1	1
14	-1	1	1	3	1	-1	-1	9	1.50	17.14	10.25	-1	1	-1	0	-1	1
15	1	1	-1	3	-1	-1	-1	9	41.94	6.00	740.47	1	1	1	0	-1	1
16	1	1	-1	3	-1	-1	-1	9	41.94	6.00	740.47	1	1	-1	0	-1	1
17	1	1	-1	3	-1	-1	-1	9	41.94	6.00	740.47	-1	-1	1	0	-1	1
18	1	1	-1	3	-1	-1	-1	9	41.94	6.00	740.47	-1	-1	-1	0	-1	1
19	-1	1	1	1	1	-1	-1	9	39.50	15.86	288.50	-1	0	-1	0	-1	1
20	-1	1	1	1	1	-1	-1	9	39.50	15.86	288.50	-1	0	-1	0	-1	1
21	-1	1	1	1	1	-1	-1	9	39.50	15.86	288.50	-1	0	-1	0	-1	1
22	-1	1	1	1	1	-1	-1	9	39.50	15.86	288.50	-1	0	-1	0	-1	1
23	-1	1	1	1	1	-1	-1	9	19.99	13.33	169.98	-1	1	-1	0	-1	1
24	-1	1	1	1	1	-1	-1	9	19.99	13.33	169.98	-1	1	-1	0	-1	1
25	-1	1	1	1	1	-1	-1	9	19.99	13.33	169.98	-1	1	-1	0	-1	1

#	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
26	-1	1	1	1	1	-1	-1	9	19.99	13.33	169.98	-1	1	-1	0	-1	1
27	-1	1	1	1	1	-1	-1	9	19.99	10.00	219.98	-1	1	-1	0	-1	1
28	-1	1	1	1	1	-1	-1	7	19.99	10.00	219.98	-1	1	-1	0	-1	1
29	-1	1	1	1	1	-1	-1	9	19.99	10.00	219.98	-1	1	-1	0	-1	1
30	-1	1	1	1	1	-1	-1	9	19.99	10.00	219.98	-1	1	-1	0	-1	1
31	1	1	1	2	1	-1	-1	9	8.95	4.50	207.95	-1	1	-1	0	-1	1
32	1	1	1	2	1	-1	-1	9	8.95	4.50	207.95	-1	1	-1	0	-1	1
33	1	1	1	2	1	-1	-1	9	18.95	10.03	207.95	-1	1	-1	0	-1	1
34	1	1	1	2	1	-1	-1	9	18.95	10.03	207.95	-1	1	-1	0	-1	1
35	-1	-1	0	3	1	-1	-1	9	100.00	25.00	499.95	1	1	-1	0	-1	0
36	-1	-1	0	3	1	-1	-1	10	82.50	20.25	489.95	1	1	-1	0	-1	0
37	-1	1	1	3	1	-1	-1	10	1.00	5.00	21.00	-1	1	-1	0	-1	1
38	-1	1	1	3	1	-1	-1	8	5.00	5.00	105.00	-1	1	-1	0	-1	1
39	-1	1	1	3	1	-1	-1	8	7.00	35.00	27.00	-1	1	-1	0	-1	1
40	-1	1	1	3	1	-1	-1	8	35.00	35.00	135.00	-1	1	-1	0	-1	1
41	-1	1	-1	2	1	-1	-1	14	9.86	37.92	35.86	-1	0	-1	-1	1	1
42	-1	1	-1	2	1	-1	-1	14	9.86	37.92	35.86	-1	0	-1	1	1	1
43	1	1	1	2	-1	1	-1	12	9.00	30.01	38.99	-1	-1	-1	0	1	1
44	1	1	1	2	-1	1	-1	12	9.00	30.01	38.99	-1	1	-1	0	1	1
45	-1	-1	0	1	1	-1	-1	12	32.50	36.13	122.45	-1	1	-1	0	1	1
46	-1	-1	0	3	1	-1	-1	12	3.99	82.27	8.84	-1	1	-1	-1	-1	1
47	-1	-1	0	3	1	-1	-1	12	3.99	11.92	37.48	-1	1	-1	-1	-1	1
48	1	1	-1	3	1	-1	-1	12	12.76	18.50	81.75	-1	1	-1	0	-1	1
49	1	1	-1	3	1	-1	-1	12	12.76	18.50	81.75	-1	1	-1	0	-1	1
50	1	1	-1	3	1	-1	-1	16	12.76	18.50	81.75	-1	1	1	0	-1	1
51	1	1	-1	3	1	-1	-1	16	12.76	18.50	81.75	-1	1	1	0	-1	1
52	-1	1	1	2	1	-1	-1	12	21.95	7.70	306.90	-1	1	-1	0	-1	1
53	-1	1	1	2	1	-1	-1	12	21.95	7.70	306.90	-1	1	-1	0	-1	1
54	-1	1	1	4	1	1	1	14	76.30	10.00	839.00	0	0	1	0	-1	0
55	-1	1	1	4	1	1	1	14	76.30	10.00	839.00	0	0	1	0	-1	0
56	-1	1	1	2	1	-1	-1	14	11.00	31.44	45.99	-1	1	-1	0	-1	1
57	-1	1	1	2	1	-1	-1	14	11.00	31.44	45.99	-1	1	-1	0	-1	1

#	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
58	-1	1	1	2	1	-1	-1	15	40.00	8.16	529.99	-1	1	-1	0	-1	1
59	-1	1	1	2	1	-1	-1	15	40.00	8.16	529.99	-1	1	-1	0	-1	1
60	-1	1	1	2	1	-1	-1	15	38.00	10.64	395.00	-1	0	-1	0	-1	1
61	-1	1	1	2	1	-1	-1	15	38.00	10.64	395.00	-1	0	-1	0	-1	1
62	-1	-1	0	3	1	-1	1	12	15.00	75.00	35.00	1	1	-1	0	-1	-1
63	1	-1	0	2	1	-1	-1	12	100.00	45.45	320.00	1	1	-1	0	-1	-1
64	1	-1	0	2	1	-1	-1	13	100.00	33.33	400.00	1	1	-1	0	-1	-1
65	-1	-1	0	2	1	-1	-1	12	18.62	8.47	238.39	-1	1	-1	0	-1	1
66	-1	-1	0	2	1	-1	-1	12	16.54	4.51	383.46	-1	1	-1	0	-1	1
67	-1	-1	0	2	1	-1	-1	16	12.95	18.51	82.90	-1	1	0	0	-1	1
68	-1	-1	0	1	1	-1	-1	16	17.42	2.62	683.03	-1	1	-1	0	-1	1
69	-1	-1	0	1	1	-1	-1	16	24.81	3.19	802.02	-1	1	-1	0	-1	1
70	-1	1	1	3	1	1	-1	16	1.00	.30	336.33	-1	0	-1	-1	1	0
71	-1	1	1	3	1	1	-1	12	1.00	.30	336.33	-1	0	-1	1	1	0
72	-1	1	-1	1	-1	-1	-1	12	9.99	12.81	87.98	1	1	-1	0	-1	1
73	-1	1	-1	1	-1	-1	-1	4	9.99	12.81	87.98	1	1	-1	0	-1	-1
74	-1	1	-1	2	-1	-1	-1	4	9.99	13.69	82.98	1	1	-1	0	-1	1
75	-1	1	-1	2	-1	-1	-1	16	9.99	13.69	82.98	1	1	-1	0	-1	-1
76	-1	1	-1	2	-1	1	-1	16	90.00	18.83	568.00	-1	1	-1	0	1	1
77	-1	1	-1	2	-1	1	-1	4	90.00	3.63	2568.00	-1	1	-1	0	1	1
78	-1	1	1	2	1	-1	-1	4	15.00	23.08	80.00	-1	1	-1	0	-1	1
79	-1	1	1	2	1	-1	1	8	5.00	10.01	54.95	-1	1	-1	0	-1	1
80	-1	1	1	2	1	-1	1	8	15.00	30.03	64.95	-1	1	-1	0	-1	1
81	-1	1	1	2	1	-1	1	10	25.00	50.05	74.95	-1	1	-1	0	-1	1
82	-1	1	1	2	1	-1	1	10	9.00	18.04	58.90	-1	1	-1	0	-1	1
83	-1	1	1	2	1	-1	1	10	9.00	113.92	16.90	-1	1	-1	0	-1	1
84	-1	1	1	2	1	-1	1	9	49.00	5.51	939.00	-1	0	-1	0	-1	0
85	-1	1	1	2	1	-1	1	9	49.00	5.51	939.00	-1	1	-1	0	-1	1
86	-1	-1	0	2	1	1	-1	9	12.00	20.29	71.13	-1	1	-1	0	-1	1
87	-1	1	1	2	-1	-1	-1	9	4.03	11.99	37.65	1	1	1	0	1	1
88	-1	1	1	2	-1	-1	-1	9	6.41	20.52	37.65	1	1	1	0	1	1
89	-1	1	1	4	1	-1	-1	9	104.00	8.92	1270.00	-1	0	0	0	-1	1

#	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
90	-1	-1	0	10	1	-1	-1	9	18.48	3.39	562.72	-1	1	-1	0	-1	1
91	-1	1	1	2	1	-1	-1	9	6.99	4.19	173.99	-1	1	-1	0	-1	1
92	-1	1	1	2	1	-1	-1	9	6.99	4.19	173.99	-1	1	-1	0	-1	1
93	-1	1	1	2	1	-1	-1	9	19.99	12.98	173.99	-1	1	-1	0	-1	1
94	-1	1	1	2	1	-1	-1	9	19.99	12.98	173.99	-1	1	-1	0	-1	1
95	-1	1	-1	2	1	1	-1	9	8.00	5.00	168.00	-1	1	-1	0	-1	-1
96	-1	1	-1	2	1	1	-1	9	8.00	5.00	168.00	-1	1	-1	0	-1	-1
97	-1	1	-1	2	1	1	-1	9	8.00	5.00	168.00	-1	1	-1	0	-1	-1
98	-1	1	-1	2	1	1	-1	9	.35	5.00	7.35	-1	1	-1	0	-1	-1
99	-1	1	-1	2	1	1	-1	9	1.50	6.00	26.50	-1	1	-1	0	-1	-1
100	-1	1	-1	2	1	1	-1	4	.25	5.00	5.25	-1	1	-1	0	-1	-1
101	-1	1	-1	2	1	-1	-1	12	10.00	4.88	215.00	1	1	-1	0	-1	-1
102	-1	1	-1	2	1	-1	-1	12	10.00	4.88	215.00	-1	1	-1	0	-1	-1
103	1	-1	0	3	-1	-1	-1	12	41.94	6.00	740.47	1	1	1	0	-1	1
104	1	-1	0	3	-1	-1	-1	12	41.94	6.00	740.47	1	1	-1	0	-1	1
105	1	-1	0	3	-1	-1	-1	12	41.94	6.00	740.47	-1	-1	1	0	-1	1
106	1	-1	0	3	-1	-1	-1	12	41.94	6.00	740.47	-1	-1	-1	0	-1	1
107	-1	1	1	1	1	-1	-1	12	39.50	15.86	288.50	-1	0	-1	0	-1	1
108	-1	1	1	1	1	-1	-1	12	39.50	15.86	288.50	-1	0	-1	0	-1	1
109	-1	1	1	1	1	-1	-1	12	39.50	15.86	288.50	-1	0	-1	0	-1	1
110	-1	1	1	1	1	-1	-1	12	39.50	15.86	288.50	-1	0	-1	0	-1	1
111	-1	1	1	1	1	-1	-1	12	19.99	13.33	169.98	-1	1	-1	0	-1	1
112	-1	1	1	1	1	-1	-1	12	19.99	13.33	169.98	-1	1	-1	0	-1	1
113	-1	1	1	1	1	-1	-1	12	19.99	13.33	169.98	-1	1	-1	0	-1	1
114	-1	1	1	1	1	-1	-1	16	19.99	13.33	169.98	-1	1	-1	0	-1	1
115	-1	1	1	1	1	-1	-1	16	19.99	10.00	219.98	-1	1	-1	0	-1	1
116	-1	1	1	1	1	-1	-1	16	19.99	10.00	219.98	-1	1	-1	0	-1	1
117	-1	1	1	1	1	-1	-1	16	19.99	10.00	219.98	-1	1	-1	0	-1	1
118	-1	1	1	1	1	-1	-1	14	19.99	10.00	219.98	-1	1	-1	0	-1	1
119	1	1	1	2	1	-1	-1	13	8.95	4.50	207.95	-1	1	-1	0	-1	1
120	1	1	1	2	1	-1	-1	12	8.95	4.50	207.95	-1	1	-1	0	-1	1
121	1	1	1	2	1	-1	-1	12	18.95	10.03	207.95	-1	1	-1	0	-1	1

#	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
122	1	1	1	2	1	-1	-1	8	18.95	10.03	207.95	-1	1	-1	0	-1	1
123	-1	1	1	3	1	-1	-1	9	1.00	5.00	21.00	-1	1	-1	0	-1	1
124	-1	1	1	3	1	-1	-1	9	5.00	5.00	105.00	-1	1	-1	0	-1	1
125	-1	1	1	3	1	-1	-1	4	7.00	35.00	27.00	-1	1	-1	0	-1	1
126	-1	1	1	3	1	-1	-1	4	35.00	35.00	135.00	-1	1	-1	0	-1	1
127	1	1	1	2	-1	1	-1	6	9.00	30.01	38.99	-1	-1	-1	0	1	1
128	1	1	1	2	-1	1	-1	6	9.00	30.01	38.99	-1	1	-1	0	1	1
129	-1	-1	0	1	1	-1	-1	6	32.50	36.13	122.45	-1	1	-1	0	1	1
130	-1	-1	0	3	1	-1	-1	9	3.99	1.26	320.00	-1	1	-1	-1	-1	1
131	-1	-1	0	3	1	-1	-1	9	3.99	1.26	320.00	-1	1	-1	-1	-1	1
132	-1	-1	0	3	1	-1	-1	9	3.99	1.70	238.39	-1	1	-1	-1	-1	1
133	-1	-1	0	3	1	-1	-1	9	3.99	1.70	238.39	-1	1	-1	-1	-1	1
134	-1	-1	0	2	1	-1	-1	8	21.95	7.70	306.90	-1	1	-1	0	-1	1
135	-1	-1	0	4	1	1	1	8	76.30	10.00	839.00	0	0	1	0	-1	0
136	-1	1	1	4	1	1	1	8	76.30	10.00	839.00	0	0	1	0	-1	0
137	-1	1	1	4	1	1	1	12	76.30	10.00	839.00	0	0	1	0	-1	0
138	-1	1	1	2	1	-1	-1	12	40.00	8.16	529.99	-1	1	-1	0	-1	1
139	-1	1	1	2	1	-1	-1	14	40.00	8.16	529.99	-1	1	-1	0	-1	1
140	-1	1	1	2	1	-1	-1	13	38.00	10.64	395.00	0	0	-1	0	-1	0
141	-1	1	1	2	1	-1	-1	13	38.00	10.64	395.00	0	0	-1	0	-1	0
142	-1	-1	0	3	1	-1	1	13	100.00	50.00	300.00	1	1	-1	0	-1	-1
143	-1	-1	0	1	-1	-1	-1	13	9.99	12.81	87.98	1	0	-1	0	-1	0
144	-1	-1	0	2	-1	-1	-1	13	9.99	13.69	82.98	-1	0	-1	0	-1	0
145	-1	1	1	2	1	-1	1	13	49.00	5.51	939.00	-1	0	-1	0	-1	0
146	-1	1	1	2	1	-1	1	8	49.00	5.51	939.00	-1	1	-1	0	-1	1
147	-1	1	1	4	1	-1	-1	8	104.00	8.92	1270.00	-1	0	0	0	-1	1
148	-1	1	1	4	1	-1	-1	8	104.00	8.92	1270.00	-1	0	0	0	-1	1
149	-1	1	1	4	1	-1	-1	8	104.00	8.92	1270.00	-1	0	0	0	-1	1

APPENDIX 3: THEORY AND HYPOTHESIS FOR MODERATING EFFECT OF TYPICALITY

We investigate the role of the typicality of partitioning a surcharge, which we defined in Chapter 2 as the degree to which partitioning a surcharge is representative of the descriptive norm (Briesch et al. 1997) for a particular product category. The price recall bias effect found by Morwitz, Greenleaf, and Johnson (1998) is predicated on the fact that consumers do not notice the surcharges presented to them. While this might be true in the case of common surcharges such as taxes or shipping fees, surcharges that are not usually partitioned out of the total price could attract attention to themselves by being more visually salient because of the novelty associated with partitioning them.

Redden, Fitzsimons, and Williams (2007) examine this issue by focusing on descriptive norms (Briesch et al. 1997), which specify what consumers have come to expect from a firm given how it has behaved in the past and given what other firms are doing in the marketplace. These norms help consumers set expectations regarding how they believe things will be, and Redden and colleagues found that, when partitioning is not the norm, the price recall bias due to partitioning might be attenuated, with further negative consequences due to perceived violations of fairness. Hamilton and Srivastava (2008) also address this issue in their second study. The authors found that participants were less likely to choose a supplier offering free labor (versus another supplier offering the same total price, with 43% apportioned as labor costs) when they believed that free labor was less common. This stream of research suggests that descriptive norms have a role to play in how consumers respond to partitioned prices.

When partitioning a surcharge is the norm for a particular category, we define the typicality of partitioning as being high or typical and, when partitioning a surcharge is not the norm for a particular category, we define the typicality of partitioning as being low or atypical. Atypical partitioning does not conform to consumers' expectations, because of which the salience of the partitioned component is increased (Lynch and Srull 1982). On the other hand, typical partitioning conforms to consumers' expectations, and it does not increase the salience of the partitioned component. Therefore, we propose the following hypothesis:

H3: Atypical partitioning will (a) increase the attention paid to surcharges and (b) attenuate the impact of SM on preference.

APPENDIX 4: STUDIES TO TEST MODERATING EFFECT OF TYPICALITY

Participants and Procedure

Two hundred and fifty-three students participated in these studies for course credit. Study 4a was an eye-tracking and paper-based study, and Study 4b was a paper-based study. Sample size for Study 4a was predetermined as the number of participants in 15 one-hour research sessions (141), and sample size for Study 4b was predetermined as the number of participants in 18 one-hour research sessions, but who had not done Study 4a (112). Data collection stopped at the end of the predetermined number of sessions.

Participants were randomly assigned to the conditions of a 2 (SM: low, high) × 2 (typicality of partitioning: typical, atypical) between-subjects design. Participants were asked to imagine that they were thinking of purchasing a new digital camera to take on an upcoming vacation. They were informed that they searched online and found a Nikon D3100 camera (picture displayed) that was rated 4.75 stars out of 5 by Consumer Reports. The camera had a wide-angle zoom lens and the seller would ship it to their home. For Study 4a, participants saw the base price and the surcharge on the next computer screen, and for Study 4b, the base price and the surcharge were provided below the scenario details. In the typical conditions, the base price was for "Camera (incl. lens)" and the surcharge was for "Shipping," and in the atypical conditions, the base price was for "Camera (incl. shipping)" and the surcharge was for "Wide-angle zoom lens." In the low SM conditions, the base price was $505.67

and the surcharge was $7.69, and in the high SM conditions, the base price was $498.67 and the surcharge was $14.69.

Participants then responded to paper-based measures for purchase intention, offer evaluation, seller motives, attention to the surcharge, surcharge evaluation, perceived SM, quality of camera, shipping, and lens, shipping and lens benefit, typicality of lens and shipping surcharge, typical price range for shipping and lens surcharge, and familiarity with digital cameras. From these measures, we computed measures of quality, benefit, typicality of partitioning, and typical price ranges for the surcharged and non-surcharge components. All scales used seven-point scale-items except the typicality measures, which used nine-point scale-items.

Results

Manipulation checks. A 2 (SM: low, high) × 2 (typicality: typical, atypical) ANOVA on typicality of the surcharged component revealed only the expected effect of typicality (Study 4a: $F(1, 136) = 27.81$, $p < .001$; Study 4b: $F(1, 101) = 27.24$, $p < .001$), indicating a successful manipulation. Typicality was higher in the typical conditions (*M*s = 7.0 and 6.9) than in the atypical conditions (*M*s = 5.2 and 4.9). The same ANOVA on the perceived SM measure revealed (marginally) significant effects of SM (Study 4a: $F(1, 137) = 6.78$, $p = .01$; Study 4b: $F(1, 108) = 3.65$, $p = .06$) and typicality (Study 4a: $F(1, 137) = 5.76$, $p = .02$; Study 4b: $F(1, 108) = 5.41$, $p = .02$), indicating a successful manipulation. As expected, perceived SM was higher for high SM (*M*s = 3.6 and 3.5) than for low SM (*M*s = 3.1 and 3.0), and it was also higher in the typical conditions (*M*s = 3.6 and 3.6) than in the atypical conditions (*M*s = 3.1 and 2.9).

Purchase intention. A 2 (SM: low, high) × 2 (typicality: typical, atypical) between-subjects ANOVA on Study 4a purchase intention revealed only a marginal effect of typicality ($F(1, 137) = 2.79$, $p = .097$). Purchase intention was marginally lower in the typical condition ($M = 3.8$) than in the atypical condition ($M = 4.2$). Planned *t*-tests did not reveal effects of SM in either the typical or the atypical conditions. The same 2 × 2 ANOVA on Study 4b purchase intention revealed no effects (ps > .27), likely due to insufficient power in the sample. Planned *t*-tests again did not reveal effects of SM in either the typical or the atypical conditions.

Offer evaluation. A 2 (SM: low, high) × 2 (typicality: typical, atypical) between-subjects ANOVA on Study 4a offer evaluation revealed marginal effects of SM ($F(1, 137) = 2.88$, $p = .09$) and typicality ($F(1, 137) = 3.62$, $p = .06$) and an interaction between SM and typicality ($F(1, 137) = 7.15$, $p = .008$). Offer evaluation was lower when SM was low ($M = 3.8$) than when it was high ($M = 4.1$), and in the typical condition ($M = 3.7$) than in the atypical condition ($M = 4.1$). The interaction revealed that there was a positive effect of SM in the typical conditions (Ms = 3.3 vs. 4.2, $p = .003$), but no effect in the atypical conditions (Ms = 4.2 vs. 4.0, $p = .49$), which is consistent with H3b.

The same 2 × 2 ANOVA on Study 4b offer evaluation revealed only a marginal interaction between SM and typicality ($F(1, 108) = 3.72$, $p = .06$). The interaction revealed that there was a negative effect of SM in the typical conditions (Ms = 4.3 and 3.5, $p = .03$), but no effect in the atypical conditions (Ms = 4.0 and 4.2, $p = .62$), which is consistent with H3b. A preference measure that was created by averaging the purchase intention items and the offer evaluation items yielded similar

results as on offer evaluation. Although both studies offer support for the moderating role of typicality on the effect of SM on preference, the pattern of results differs. The Study 4b pattern was in line with predictions, suggesting more noisy downstream measures in Study 4a due to the intermediate eye-tracking data collection.

Attention to the surcharge. The same 2 × 2 ANOVA on Study 4a fixation count revealed only a marginal interaction between SM and typicality ($F(1, 137) = 3.73$, $p = .06$). The interaction revealed that, consistent with H3a, there was a positive effect of SM in the typical conditions (*M*s = 1.8 and 2.8, $p = .01$), but no effect in the atypical conditions (*M*s = 2.6 and 2.4, $p = .78$). The same 2 × 2 ANOVA on gaze time revealed a similar pattern of means, but there was only a marginal main effect of SM ($F(1, 137) = 2.79$, $p = .097$). The same 2 × 2 ANOVA on Study 4a self-reported attention revealed only main effects of SM ($F(1, 137) = 8.07$, $p = .005$) and typicality ($F(1, 137) = 6.16$, $p = .01$), but no interaction. Finally, the same 2 × 2 ANOVA on Study 4b self-reported attention did not reveal any effects (all *p*s > .20). We return to the discrepancy between the eye-tracked and paper-based measures in the discussion.

Surcharge evaluation. The same 2 × 2 ANOVA on Study 4a surcharge evaluation revealed only a main effect of typicality ($F(1, 137) = 10.75$, $p = .001$). Surcharge evaluation was higher in the atypical condition than in the typical condition (*M*s = 4.7 vs. 3.9), suggesting that atypicality led to increased surcharge evaluation for both low and high SMs, which might explain the effect on Study 4a offer evaluation. The same 2 × 2 ANOVA on Study 4b surcharge evaluation revealed only a main effect of SM ($F(1, 137) = 5.22$, $p = .02$). Surcharge evaluation was higher when SM was low than when it was high (*M*s = 4.7 vs. 4.0), which might explain the

effect on Study 4b offer evaluation. However, the effects on surcharge evaluation in Studies 4a and 4b are inconsistent with each other and cannot explain the effects of interest across the studies.

Alternative explanations. In both studies, camera quality, benefit of the non-surcharged component, and typical price ranges for both components varied by condition, but the other measures did not vary in one or both studies, ruling them out as underlying mechanisms for the effects on attention and preference. A 2 (SM: low, high) × 2 (typicality: typical, atypical) ANOVA revealed that Study 4a camera quality was higher when SM was low ($F(1, 137) = 4.17$, $p = .04$; *M*s = 5.9 vs. 5.6), but Study 4b camera quality was marginally lower when SM was low ($F(1, 108) = 3.88$, $p = .05$; *M*s = 5.5 vs. 5.9), ruling out camera quality as an explanation for the effects of interest. The same 2 × 2 ANOVA revealed that benefit of the non-surcharged component was (marginally) higher in the typical condition (Study 4a: $F(1, 136) = 4.00$, $p = .048$; *M*s = 5.7 vs. 5.2 and Study 4b: $F(1, 101) = 3.64$, $p = .06$; *M*s = 5.8 vs. 5.4), but this should result in higher offer evaluation in the typical condition than in the atypical condition. However, we observe the opposite in Study 4b, ruling out benefit of the non-surcharged component as an underlying driver of the effects of interest.

The same 2 × 2 ANOVA on the price range lower and upper bounds for the surcharged and non-surcharged components revealed (marginal) main effects of SM (Study 4a: $F(1, 136) = 2.78$, $p = .098$ and Study 4b: $F(1, 101) = 3.14$, $p = .08$) and typicality (Study 4a: $F(1, 136) = 29.31$, $p < .001$ and Study 4b: $F(1, 101) = 16.87$, $p < .001$) for non-surcharged component lower bound, and only main effects of typicality

for surcharged component lower bound (Study 4a: $F(1, 136) = 12.46$, $p = .001$ and Study 4b: $F(1, 101) = 11.62$, $p < .001$), surcharged component upper bound (Study 4a: $F(1, 136) = 23.14$, $p < .001$ and Study 4b: $F(1, 101) = 16.34$, $p < .001$), and non-surcharged component upper bound (Study 4a: $F(1, 136) = 5.11$, $p = .03$ and Study 4b: $F(1, 101) = 10.26$, $p = .002$). Non-surcharged component lower bound was marginally higher when SM was low than when it was high (Study 4a: *M*s = $66 vs. $42 and Study 4b: *M*s = $56 vs. $31) and higher in the typical condition than in the atypical condition (Study 4a: *M*s = $94 vs. $13 and Study 4b: *M*s = $77 vs. $11). Similarly, the typical condition had higher means than the atypical condition for non-surcharged component upper bound (Study 4a: *M*s = $176 vs. $106 and Study 4b: *M*s = $177 vs. $41) and lower means than the atypical condition for surcharged component lower bound (Study 4a: *M*s = $7 vs. $44 and Study 4b: *M*s = $6 vs. $17) and upper bound (Study 4a: *M*s = $17 vs. $106 and Study 4b: *M*s = $16 vs. $41), suggesting the role of expected component price rather than typicality as an underlying driver of the effects of interest.

Discussion

The purpose of the current study was to show the moderating role of typicality of partitioning on the effect of SM on preference. Consistent with H3b, the effect of SM in the typical conditions was attenuated in the atypical conditions. However, Study 4a showed a positive effect of SM in the typical conditions and Study 4b showed a negative effect of SM in the typical conditions, and the reason for this inconsistency is not clear. Perhaps the eye-tracking portion of Study 4a resulted in more noisy downstream measures considering that the Study 4a pattern was

unexpected, but the Study 4b pattern was in line with predictions. At the same time, of the attention measures, the eye-tracked fixation count measure from Study 4a was consistent with H3a, but the paper-based measures in Study 4a and Study 4b were not. This internal inconsistency might be because of the lower fidelity of paper-based measures as compared to the physiological measure. Additionally, the effects of the typicality manipulation on expected component prices suggest a possible alternative explanation to the role of typicality.

Follow-Up Studies

To overcome the limitations of Studies 4a and 4b, we ran a follow-up study. Study 5 (N = 134) was a paper-based study with the same 2 × 2 design as Study 4b, but with the following differences: the camera brand was changed, we used a model with a total price in the $100 range rather than in the $500 range and a camera case was used as the atypical secondary component instead of the wide-angle zoom lens to reduce the role of component prices, and finally the low and high SMs were two-digit surcharges ($10.69 and $19.69). The pattern of means for preference was similar to Study 4b: a negative effect of SM for typical surcharges and no difference for atypical surcharges; however, the interactions were not significant and neither were the planned *t*-tests. At the same time, self-reported attention to the surcharge did not show an interaction effect, but planned *t*-tests revealed a significant positive effect of SM for typical surcharges and no difference for atypical surcharges, which is consistent with the eye-tracked measure of attention in Study 4a, but not with the self-reported measures of attention in Studies 4a and 4b. Also, a typicality manipulation check revealed a main effect of typicality and an interaction between SM and

typicality, so the manipulation was not cleanly achieved. Finally, expected price ranges for components and controllability also varied by component, leading to potential confounds, due to which we are unable to make firm inferences from this study.

To overcome these limitations, we ran another follow-up study. Study 6 (N = 166) was a paper-based study with the same 2 × 2 design as Studies 4a, 4b, and 5, but with the following differences compared to Study 5: the secondary component was kept the same (lens) across conditions to rule out differences in factors such as benefit, controllability, and expected price range. Typicality was instead varied by using a norms manipulation similar to the manipulations in the experiments in Chapter 2: participants saw either four partitioned prices or four all-inclusive prices to create the norm for partitioning or not, and then they saw the target price, which had either a low or a high SM. The typicality manipulation was clean with only a main effect of typicality, but lens quality and benefit varied by condition, leading to potential confounds. More important, 2 × 2 ANOVAs on preference and attention did not reveal significant interactions or the expected pattern of means, so we are unable to draw inferences from this study either.

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