



ASSOCIATION FOR CONSUMER RESEARCH

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Effects of Amount of Information on Overconfidence

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Title: Effects of amount of information on overconfidenceAuthors: Tsai, Claire; Klayman, Joshua; Hastie, ReidAffiliation: The University of ChicagoAbstract: When a person makes a judgment based on evidence and assesses confidence in that judgment, what is the effect of providing more judgment-relevant information? Findings by Oskamp (1965) and by Slovic and Corrigan (1977) suggest that more information leads to increasing overconfidence. , We replicate the finding that receiving more information leads judges to increase their confidence even when their predictive accuracy does not improve. We identify some likely candidates for cues people use to judge confidence that do not correlate well with actual accuracy.

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SPECIAL SESSION SUMMARY

Consumer Response to Price Presentation Formats: Implications for Partitioned Pricing and Transaction Bundling

Rebecca Hamilton, University of Maryland

SESSION OVERVIEW

Consider the following scenarios:

An online auto parts retailer is choosing its pricing strategy. Is it better to charge \$89.95 for a specific part plus \$32.50 for shipping or \$69.95 plus \$52.50 for shipping?

A catalog company is setting prices. Is it better to charge \$39 for a jacket and \$12 for shipping or charge \$51 including shipping? Will preferences change if the price of the jacket is \$149?

An auto dealer is making an offer to a consumer purchasing a new car and trading in an old car. Is it better to provide a good deal on the new car and a bad deal on the trade-in, a bad deal on the new car and a good deal on the trade-in, or a moderately good deal on both?

These three scenarios highlight transactions in which prices are partitioned among multiple, separable components that are naturally related (e.g., price of product and price of shipping) or occur together in time (e.g., buying a new car and trading in an old one). Although the idea that differences in price presentation affect consumer evaluations and purchase intentions is well entrenched in the marketing literature, it is only recently that research has begun to examine how consumers process partitioned prices (Morwitz et al. 1998; Xia and Monroe 2004).

Earlier work suggests that consumers may process partitioned and non-partitioned prices differently. Consumers may use simplifying strategies to process partitioned prices, such as ignoring relatively small surcharges or anchoring on one component of the partitioned price, making partitioned prices seem lower than non-partitioned prices (Morwitz et al. 1998). There is also evidence that prices partitioning can make certain components more salient than when the same components are presented under a single price tag (Chakravarti et al. 2002).

Building on this earlier work, the three papers in this session provide evidence that heuristic processing and salience cannot fully explain differences in consumers' reactions to partitioned prices when the same total price is partitioned in different ways. In the first paper, Hamilton and Srivastava show that consumers systematically prefer that more of the total price be allocated to components that are high in perceived value rather than low in perceived value, suggesting that consumer price sensitivity can vary across components of a partitioned offer. In the second paper, Roggeveen, Xia, and Monroe show that consumer skepticism moderates the beneficial effect of partitioned relative to non-partitioned prices. Using attribution theory as the underlying framework, they show that preferences for partitioned prices are influenced by both beliefs that a company makes a profit from shipping charges and the price of the product. Finally, Srivastava and Chakravarti demonstrate that variations in price presentation format affect consumers' valuations for both the overall transaction and each component transaction. Overall transaction evaluations are influenced by quite malleable component transaction prices.

Together, these papers show that consumer perceptions are influenced in a systematic and predictable way by price partition-

ing. Eric Greenleaf, the session discussant, highlighted both the theoretical and practical contributions of this work.

EXTENDED ABSTRACTS

“Consumer Reactions to Partitioned Prices: Variations in Price Sensitivity Across Components”

Rebecca Hamilton, University of Maryland

Joydeep Srivastava, University of Maryland

Prices are often partitioned into two or more components that the consumer must purchase together, such as an auto part and the labor to install it, or a book purchased online plus shipping and handling. When both components are mandatory, sellers can choose to allocate more or less of the total price to each component. Controlling for the total price, we show that consumers have systematic preferences for offers based on the relative sizes of price components.

This research links consumers' preferences for certain price partitions to their price sensitivity for various components of the total price. We propose that differences in price sensitivity across the components of a partitioned price are linked to consumers' perceptions of value. The perceived value of a product is positively influenced by product benefits and negatively influenced by price (Dodds, Monroe and Grewal 1991; Zeithaml 1988). If partitioning promotes component-level evaluation, we propose that consumers should be less sensitive to prices of components that are perceived to provide greater consumption benefit.

To test this proposition, participants in our first study were asked to choose between two suppliers of a new front bumper for their car, supplier A and supplier B. The auto part, a good, was combined with two different service components. For half of the participants, the offer was described as being from an auto parts supplier, and was partitioned into separate charges for the front bumper and shipping. For the other half of the participants, the offer was described as being from an auto service shop, and was partitioned into separate charges for the front bumper and installation. Holding the total price constant, supplier A charged 27% of the total price for the service (shipping or labor), while supplier B charged 43% of the total price for the service. To minimize the effect of differential processing across components, we also provided the total price. Participants ($N=74$) systematically preferred to pay a lower percentage of the total price for the service component (which provides less consumption benefit), regardless of whether the service was shipping or installation.

In study 2, to further rule out a processing explanation, we varied whether the good or the service was the larger of the two components. For half of the participants, the service component, installation, was 76% of the total price, and the good, new headlamps, was 24% of the total price. For the other half of the participants, installation was 27% of the total price, and the good, a new front bumper, was 73% of the total price. Again, participants ($N=85$) preferred to pay less for the service component, and there was no difference across conditions.

In study 3, we used a conjoint task to measure price sensitivity more directly. In contrast to the within-subjects designs of studies 1 and 2, we used a between-subjects design, and we partitioned the price of two goods. Participants were tasked with selecting a new

refrigerator (as in Chakravarti et al. 2002) that had both an icemaker and a sound silencing system. We chose these two features because we expected them to vary in their perceived consumption benefits. A pretest ($N=76$) indicated that our college student participants perceived more consumption benefit in the icemaker than in the sound silencing system. After study participants read the scenario, they ranked their preferences for nine different refrigerators. For half of the participants, the price of the icemaker and the base price of the refrigerator were varied across alternatives, and the sound silencing system was simply indicated to be present. For the other half of the participants, the price of the sound silencing system and the base price of the refrigerator were varied, and the icemaker was simply indicated to be present.

We regressed participants' preference rankings on the component price levels to measure participants' sensitivity to changes in the base price of the refrigerator and to changes in the price of the icemaker or sound silencing system components. We performed separate regressions for each of the 81 participants, and then we compared the beta weights across conditions. As expected, we found that sensitivity to component prices (as measured by the unstandardized beta weights) was significantly higher for those in the sound silencing system condition than for those in the icemaker condition. These results indicate that participants were more sensitive to changes in the price of the low-benefit component, the sound silencing system, than to changes in the price of the high-benefit component, the icemaker. In contrast, participants were equally sensitive to changes in the base price of the refrigerator across conditions. Thus, even when price information is presented in exactly the same way, the nature of the components makes a difference.

In summary, controlling for processing differences and salience of price components, consumers are more sensitive to changes in the prices of some components than other components, whether these components are goods and services (studies 1 and 2) or pure goods (study 3). Specifically, in study 3, price sensitivity was demonstrated to be higher for a component perceived to have low consumption benefit than for a component perceived to have high consumption benefit. Because price partitioning encourages component-level processing, sellers should consider the perceived consumption benefits of components when allocating the total price among components.

“How Attributions and the Product's Price Impact the Effectiveness of Price Partitioning”

Anne L. Roggeveen, Babson University

Lan Xia, Bentley College

Kent B. Monroe, Richmond University

As on-line shopping becomes more popular, marketers face the decision of how to present shipping and handling charges to their customers. Some companies charge one price for the product and advertise free shipping and handling (i.e., bundled price). Other companies charge one price for the product and a separate price for the shipping and handling (i.e., partitioned price). Information from the Direct Marketing Association indicates charging a bundled price and advertising “free shipping and handling” is the most effective purchase incentive (DMA 2000, p. 63). Yet, there is evidence that partitioned pricing may be advantageous to direct marketers. Partitioning shipping charges may lead to lower total recalled costs, which is expected to lead to increased demand (Morwitz, Greenleaf, and Johnson 1998). Research shows however that these results are qualified by how appropriate the consumer views the shipping charge to be, which is influenced by the amount, type, and presentation of surcharge (Xia and Monroe 2004).

This research extends the price partitioning research in two ways. First, we examine a potential boundary of the positive effect of price partitioning by looking at the interaction of attributions about the profit companies make from the shipping charge and product price. Previous research has shown that consumer skepticism about shipping charges moderates how the price format influences consumer reactions. Specifically, Schindler, Morrin, and Bechwati (2004) found that when customers are skeptical, bundling is more effective than partitioning. We expect that knowing a company makes a profit from the shipping charges will cause consumers to be skeptical such that bundling will be more effective than partitioning when the company makes a profit but we expect this to hold only when the total cost is fairly inexpensive. The rationale is that when the product is inexpensive and shipping is bundled, the overall cost seems reasonable and shipping is not salient. However, when shipping is partitioned from an inexpensive product's price, the shipping charge appears high in relation to the product cost and hence becomes salient. In contrast, for expensive products, when shipping is bundled and the total price seems high, consumers prefer to know how much the shipping charge is with expensive products. Therefore, when the product is inexpensive, bundled price is more effective than partitioned price but when the product is expensive, partitioned price is more effective.

In a 2 x 2 x 2 between-subjects design ($n=243$), the base product's price (\$39 or \$149 jacket), whether the shipping charge is partitioned (partitioned vs. bundled), and the attribution for the shipping charge (company does not make a profit from the shipping vs. company does make a profit from the shipping) were manipulated. A shipping and handling charge of \$12 was applied to all conditions. We find the hypothesized three-way interaction.

Second, while previous research on price partitioning research has focused on the influence of price format on pre-purchase processes, we examine whether partitioned pricing influences consumers' product return after purchase. After measuring purchase intentions, a follow-up scenario was provided suggesting that after the jacket was purchased, the color of the jacket did not look as you thought it would. Then, participants are told the shipping price is non-refundable and asked whether they would return the jacket. We find that partitioned price leads to lower return intentions compared with the bundled price, but only for the inexpensive product. When the product is expensive, return intention is high regardless of the price format. Analysis revealed that when shipping costs are bundled and the jacket is inexpensive, participants believe they will be refunded more money hence the higher likelihood to return. In addition, we find that knowing a company does not make a profit from the shipping charges makes consumers think they will get more money back when the shipping is bundled (versus partitioned) with the product's price.

Study 2, replicating the results in a different context, examines how a product's weight influences consumer reactions to partitioning of prices. It is expected that when the weight is light (heavy), consumers will react similarly to the condition in which they knew the company was making a profit (not making a profit) from the shipping charge. Using a 2 (partitioned versus bundled) x 2 (light product versus heavy product) x 2 (inexpensive vs. expensive product) between-subjects design, we examined both pre- and post-purchase reactions.

Overall, this research suggests that managing consumers' price perceptions using different price structures is crucial. For a relatively low priced product, a high shipping and handling charge would scare consumers away even if the charge is honestly just to cover the cost. Therefore, shifting all or part of this cost to the base price of the product may be a good tactic. On the other hand,

charging the same amount of shipping for a higher priced product could be well accepted by consumers and create perceptions that benefit the retailers.

“Transaction Bundling: Effect of Price Presentation on Consumer Perceptions”

Joydeep Srivastava, University of Maryland

Dipankar Chakravarti, University of Colorado

Consumers are often confronted with transactions that are naturally related or occur together in time. For example, new car purchases are often made in conjunction with the trade-in of an older car and a vacation involves the purchase of air-ticket and lodging. In such situations, marketers have various options in how to price and present the overall transaction. For example, a car dealer has the option to treat the purchase of a new car and the trading-in of the old car as separate transactions with different price tags or as a bundled (consolidated) transaction where the overall transaction is presented under a single price tag. The manner in which the overall transaction is priced can significantly alter consumer perceptions (Chakravarti et al. 2002).

Even when the transaction is presented under separate price tags, a car dealer may create different gain (loss) scenarios from the same net transaction. To the extent that reference prices are available for both transactions, the manner in which the component transactions are priced could lead to different representations of the separate transactions and hence the overall exchange episode (Purohit 1995). For example, a car dealer can choose to provide a good deal on the new car but a poor deal on the trade-in. Alternatively, the dealer can provide a good deal on the trade-in and a poor deal on the new car, or the dealer could provide moderately good deals on both the new car and the trade-in, while maintaining the same net dollar amount for the overall transaction. Although marketers can implement these different price presentations relatively easily, there is little systematic research on the effects of such price presentation on consumers.

This research examines how variations in the price presentation of transaction bundles affect consumer perceptions. While economic theory would predict no differences in consumer preferences across the different price presentations, the mental accounting principle of segregate the gains (Thaler 1985) would suggest that consumers are likely to prefer the overall transaction where the dealer provides moderately good deals on both the new car and the trade-in. Alternatively, consumers may be more sensitive to the price of the new car as that is the focal transaction or consumers may be more sensitive to the price of the trade-in because of the general inclination to demand more for giving up something they own (endowment).

This paper reports the results of two studies that examine consumer preferences for transaction bundles as a function of price presentation. Using a scenario involving the purchase of a new car along with the trade-in of an old car, study 1 had six conditions, all with a separate price for the new car and a separate price for the trade-in. In all conditions, reference prices were provided for the new car and the trade-in such that the overall transaction would always result in a gain. The six conditions varied how the net total price was split across the new car and the trade-in. For example, in the conditions where there was a gain on one component and loss on the other, the price of the new car was \$15,000 and the trade-in value was \$4,000 whereas in the related condition, the new car price was \$18,000 and the trade-in value was \$7,000. The results of study 1 (n=158) show the different price presentations systematically affected consumer perceptions. Specifically, in contrast to the principle of segregating the gains, consumers were more sensitive

to the price of the new car. The overall transactions in which the price of the new car was relatively low were preferred to the transactions in which the price of the trade-in value was relatively high. These results suggest that consumer preferences for overall transactions are affected by how the component transactions are priced.

Study 2 then adds a consolidated condition where the overall transaction is presented under a single price tag to the six conditions used in study 1 and also examines how consumer attachment (involvement) with the trade-in affects preferences for the different transactions. The results (n=296) replicate the findings of study 1 in the low attachment condition. However, when consumers are trading-in a car that they were attached to, they prefer the overall transactions where the price of the trade-in is relatively high. In addition, the consolidated price presentation is uniformly preferred to the segregated price presentation in the high attachment condition but not in the low attachment condition. Together the findings of studies 1 and 2 show that consumers are differentially price sensitive to the component transactions and that this price sensitivity is malleable. The findings have both theoretical and managerial implications.

REFERENCES

- Chakravarti, Dipankar, Rajan Krish, Pallab Paul, and Joydeep Srivastava (2002), “Partitioned Presentation of Multicomponent Bundle Prices: Evaluation, Choice and Underlying Processing Effects,” *Journal of Consumer Psychology*, 12 (3), 215-229.
- Dodds, William B., Kent B. Monroe and Dhruv Grewal (1991), “Effects of Price, Brand and Store Information on Buyers’ Product Evaluations,” *Journal of Marketing Research*, 28 (August), 307-319.
- Morwitz, Vicki, Eric A. Greenleaf, and Eric J. Johnson (1998), “Divide and Prosper: Consumers’ Reactions to Partitioned Prices,” *Journal of Marketing Research*, 35 (November), 453-463.
- Schindler, Robert M., Maureen Morrin, and Nada Nasr Bechwati (2005), “Shipping Charges and Shipping-Charge Skepticism,” *Journal of Interactive Marketing*, 19 (1), 41-53.
- Thaler, Richard (1985), “Mental Accounting and Consumer Choice,” *Marketing Science*, 4 (3), 199-214.
- Xia, Lan and Kent B. Monroe (2004), “Price Partitioning on the Internet,” *Journal of Interactive Marketing*, 18 (4), 63-73.
- Zeithaml, Valarie A. (1988), “Consumer Perceptions of Price, Quality and Value: A Means-End Model and Synthesis of Evidence,” *Journal of Marketing*, 52 (July), 2-22.

Scale Development for Consumer Confusion

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INTRODUCTION

Consumers experienced an unrivalled expansion of options with reference to entertainment, lifestyle, and working life within the last decades. Just consider of the countless TV stations, the ever increasing choice of sodas or the numerous working models. This rising freedom is often associated with a higher standard of living. Consumers are gaining power—this popular development is called consumer democracy (cf., Bosshart 2004). Not retailers determine what consumers buy, but consumers themselves. But as Caldwell recently pointed out (2004), most people are terrible choosers. As freedom of choice is accompanied with abandoning traditions and habits, one is required to get involved with the single offers in an increasing assortment pool. Years ago, for example, buying a Coke was not a challenge. Today, one has to choose between 15 or more varieties (among brands: e. g., Coca Cola, Pepsi, Virgin Cola but also within product lines: e. g., Coca Cola Vanilla, Crystal or Diet). Thereby, most consumers are driven to make the right choices. This “tyranny of choice”—as Barry Schwartz (2004) named the phenomenon of increasing choices and consumer suffering—can cause Consumer Confusion. Consumers are not able to choose efficiently anymore. Which of the 200 TV-channels complies with my needs tonight? What is the difference between the two most common types of coffee (Robustica and Arabica)? Which components are essential for a home computer? These mainly rudimentary examples indicate, that the explosion of choice plays an important role in confusing consumers. Malhotra (1984) demonstrated that product variety in retail environments leads to a higher decision density for consumers which can “result in a variety of dysfunctional consequences such as *confusion*, panic, perplexity, frustration and withdrawal” (Malhotra 1984, 14).

Not only the increasing options but all stimuli generated by marketing instruments are potential causes for Consumer Confusion. Missing quality references, frequent price changes or complex indications of product compositions are store environment stimuli that may cause confusion. Of course, consumers are able to adapt to any environment but retailers are thereby confronted with negative consequences. Due to reduction strategies (simplification of purchase decisions), consumers often abandon their purchase intention or make their decision by means of just a few criterions (e. g., price).

There is clearly need for research on this issue: “While the design of pleasant retail environments is certainly a pertinent marketing goal, it might be also useful to study the darker side of the shopping experience and try to identify the environmental elements that create negative consumer feelings during shopping” (D’Astous 2000, 149). Our study intends to follow this direction for future research. Based on qualitative and quantitative studies, a scale measuring Consumer Confusion is developed. On one side, the measurement instrument provides a basis for future research, investigating interrelationships between different groups of consumers or different industries, and on the other, it offers retailers a tool that can be employed to observe current triggers of confusion. By identifying these key elements, retailers are given a guidance for their strategy development and consequently, for profiling their stores.

The paper is divided into three major sections. First, we discuss previous research that has been conducted concerning

consumer confusion. In this first section, we identify factors which conceptionally lead to Consumer Confusion. Secondly, we present our qualitative findings on confusion triggers and subsequently, we depict the quantitative study that allowed us to develop the scale for Consumer Confusion. Finally, we discuss the general implications of our findings and point out directions for future research.

LITERATURE REVIEW

Consumer Confusion as a phenomenon of its own is not yet considered in well-established consumer behavior scholar books (e. g., Assael 1997; Blackwell, Miniard, and Engel 2001). Nevertheless, confusion triggers have been mentioned in the marketing literature for quite a long time, but either in other respect or in a very isolated manner.

Trade-mark infringements enforced research efforts concerning the physical similarity of original brand and me-too products (c.f., Miaoulis and D’Amato 1978; Loken, Ross and Hinkle 1986; Foxman, Muehling and Berger 1990; Kapferer 1995). Because consumers transfer attributes (e. g., quality, functionality) from the original brand to imitational products if similarity is given, manufacturers of original products had-and still have-a strong interest to restrain copycats. The research process enabled the judges to settle objectively disputes of manufacturers in courtrooms. Still prominent is the action “Tic Tac vs. Mighty Mints” which was taken place in the seventies. This biased perception is called *Brand Confusion* (Mitchell and Papavassiliou 1999, 320). While research on Brand Confusion exclusively focuses on the physical similarity of products, research on Consumer Confusion extends this research interest by capturing the store environments multi-dimensionality. While Brand Confusion predominantly concerns (legal) issues between manufacturers, Consumer Confusion originates at the store and involves retailers’ as well as consumers’ behavior.

Having recognized, that a store *environment* does have a substantial influence on shopping (and in particular choice) behavior, environment psychologists urged to focus on confusion triggers other than just product appearance (c.f., Berlyne 1960). Subsequently in retail management, researchers dealt amongst other variables with the effect of music (c.f., Yalch and Spangenberg 1990), colors (c.f., Bellizzi, Crowley, and Hasty 1983), light (c.f., Areni and Kim 1994) and scent (c.f., Mitchell, Kahn, and Knasko 1995). Although this research stream has isolated the effects of particular environmental stimuli to date, there is not much understanding of which elements in the retail atmosphere are most salient to consumers when forming an approach-avoidance evaluation (Turley and Milliman 2000). However, to create successful marketing measures, it is crucial to understand what (combination of) variables contribute to an orienting/confusing environment which subsequently leads to approach/avoidance behavior. Furthermore, consumers don’t perceive an environment element (e. g. scent) in an isolated manner when entering a store. The perception is affected by versatile interacting components. In order to evaluate a store’s potential to confuse consumers, the focus has to be on the environment (including perceivable signals of all marketing instruments).

Mitchell and Papavassiliou (1997 and 1999) first initiated a holistic consideration of Consumer Confusion. They widened the research interest from the rather tight perspective of trade-mark infringement to a more holistic discussion including additional