



ASSOCIATION FOR CONSUMER RESEARCH

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Spending on the Fly: Mental Budgets, Promotions, and Spending Behavior

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Recent research suggests that consumers have in-store slack for grocery trips – they leave room in their mental budgets to make unplanned purchases. We evaluate how promotional savings' effect on spending varies depending on whether the item is planned or unplanned and whether it is purchased before or after the shopper's in-store slack is depleted. We conducted a field study wherein respondents used a handheld scanner to record the order of purchases. Highlighting the importance of a mental budgeting perspective, our results suggest that many in-store promotions simply serve to influence what unplanned items people buy rather than generate incremental spending.

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SPECIAL SESSION SUMMARY

Pre-Purchase Planning and Post-Purchase Learning: The Role of Internal and External Factors

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SESSION OVERVIEW

For over 40 years, consumer planning has drawn considerable interest among marketing researchers (e.g., Kollat and Willett 1967). This session adds to our understanding of antecedents of consumer planning and post-purchase learning behavior. The central themes that unite the four papers in the session are (1) how internal factors or shopper characteristics influence planned vs. unplanned purchase behavior, (2) the role of external factors or interventions in determining planning performance, and (3) whether consumers learn from their prior planning and purchases and what shopper characteristics explain this learning paradigm.

Internal Factors

All four papers examine the role of internal factors in planning and learning from shopping. From the pre-purchase planning perspective, based on a dataset covering over 18,000 grocery store purchases in 58 categories, the Bell/Corsten/Knox paper demonstrates that both traditional demographics and other shopper “habit-related traits” such as “enjoyment of shopping” and “information gathering styles” affect unplanned buying. Based on a field study wherein respondents used a handheld scanner to record the order of purchases, the Stillely/Inman/Wakefield paper indicates that consumers have a mental budget that allocates some amount of money to make unplanned purchases on a specific grocery shopping trip. From the post-purchase learning perspective, in two simulated online shopping experiments, Huang and Hutchinson examine planning as a metacognitive process and show that previous planning experience increases consumers’ awareness of the need to plan and forces them to think more strategically. As a result, individuals successfully transfer their planning skill from one shopping context to a new one. Finally, based on the results of a series of two-stage shopping experiments, the Chang/Cho/Lee paper demonstrates that consumers often seek out information about prior irreversible purchases they have made and this information search behavior can be explained by shopper characteristics. Particularly, cognitively-oriented consumers tend to avoid uncertainty and engage in post-purchase information search to confirm that they have indeed made the right purchase decision, whereas experientially-oriented consumers engage in such behavior for emotion enhancement purposes.

External Factors

In terms of how the external factors or interventions influence consumer planning behavior, Inman, and Wakefield examine how in-store promotional savings influence mental budgeting for planned vs. unplanned purchases. Their results suggest that many promotions do not influence basket size for the planned items, although they have an impact on unplanned purchase spending after consumers’ in-store slack is depleted. Differently, the Bell, Corsten, and Knox not only replicate the classic findings on positive effect of available time and negative effect of store knowledge on unplanned buying as in Park, Iyer, and Smith (1989), but also use panel structure of their data to reconcile the positive effect of store knowledge as reported in Inman, Winer, and Ferraro (2009) — a household in a familiar store can do more unplanned buying when they have more time. Huang and Hutchinson paper indicate that

requiring consumers to explicitly verbalize their plans at a “deep” level not only benefits their initial planning performance but also facilitates their planning transfer across domains (compared to control groups that do not verbalize or verbalize at a “shallow” level). Finally, Chang, Cho, and Lee successfully manipulate participants’ post-purchase information processing style by asking them to either think or feel about a purchase decision.

The focus of this session is part of a larger literature on consumers’ pre-purchase information processing, in-store decision making, and post-purchase knowledge learning and transfer. This is consistent with many ACR members’ research interests.

EXTENDED ABSTRACTS

“Unplanned Buying by Supermarket Shoppers”

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“Supermarkets are places of high impulse buying ... fully 60 to 70 percent of purchases there were unplanned, grocery industry studies have shown us.” Paco Underhill (*Why We Buy: The Science of Shopping*)

Unplanned buying is a rich and ubiquitous aspect of consumer shopping behavior, yet surprisingly little academic research examines it in detail. Understanding why, how, and when it occurs has implications for consumers, managers, and researchers. In a recent study, Inman, Winer, and Ferraro (2009) explore consumer welfare — how might consumers safeguard themselves from “too much” unplanned buying? Acting in accordance with the widespread belief that unplanned buying is pervasive and environmentally-driven (see Paco Underhill quote above) managers allocate significant resources to “in-store merchandizing”. Wal-Mart CMO John Fleming notes: “The store is our number one media channel”; on July 28, 2008 *Advertising Age* reported “... the oft-quoted statistic ... boosted shopper marketing and made other advertising seem almost pointless.” Classic (e.g., Kollat and Willett 1967) and recent (e.g., Inman, Winer, and Ferraro 2009) academic articles study in-store decision making using cross-sectional shopper intercept data, or, alternatively develop field experiments (e.g., Park, Iyer, and Smith 1989). In this paper, we supplement these efforts by studying the costs and benefits of unplanned category purchases, from the perspective of the entire shopping process.

We decompose variation in unplanned buying as it results from the confluence of three factors: the shopper, the store in which the trip is taken, and context for the trip itself. We hypothesize that three classes of factors—shopper predispositions (including demographics and shopping habits), store environments, and shopping trip contexts—affect the cost-benefit calculus for unplanned buying. Within each factor we study a number of sub-factors that are expected to affect the net benefit of unplanned buying. Following Beatty and Ferrell (1998) and Rook and Fisher (1995), our measures of shopper “traits” are not confined to demographics alone, but also include measures of the household’s overall shopping habits. We also include a variety of store image (e.g., Bell and Lattin

1999) and trip-specific factors (Fox and Hoch 2005; Lee and Arieli 2006). Some shoppers have a greater inclination to delay planning until inside the store than others; furthermore, different store environments could engender different rates of unplanned buying from the same shopper, as could different trips with different needs.

A multi-level random effects Poisson model calibrated on a dataset covering over 18,000 purchases in 58 categories is used to explain variation in the number of unplanned categories in the shopping basket. An important (and unique) feature of the data is that they vary over time, as well as over households and stores. This allows us to report the decomposition of variance due to trips, household-store combinations, and households. We find a high degree of within-household clustering (for two trips taken by the same household, the intra-class correlation is .579). Conversely, for any two trips taken at the same store, the intra-class correlation is extremely low (less than .010). For different trips by the same household at the same store, the intra-class correlation rises to .684, since, in addition to the household and store clustering, we add the household-store interaction clustering.

Thus, the variance decomposition implies unplanned buying is largely a household-driven phenomenon, explainable in part by traditional demographics, but more by other “traits” that reflect long-run shopping habits including “enjoyment of shopping” and “information gathering styles”. Even though individual difference variables are the most important class of factors in the model, these household observables account for only 40% of the total variation. Shopping trip factors including trip antecedents, trip types, and in-store experiences are can also exert substantial shifts in the base rate of unplanned buying. While we do find evidence of persistent chain level effects, we were unable to link these to perceptual differences in prices or assortments. We replicate the classic findings on time available (more unplanned buying) and high store knowledge (less unplanned buying) in Park, Iyer, and Smith (1989) and use the panel structure of our data to reconcile the positive effect of store knowledge reported in Inman, Winer, and Ferraro (2009)—a household in a familiar store can do more unplanned buying, provided more time is available.

One implication is that researchers with an interest in unplanned buying might measure other “traits” such as proclivity for impulsivity (e.g., Rook and Fisher 1995), or the propensity to be a “spendthrift” or “tightwad” (Scott, Cryder, and Loewenstein 2008). Moreover, there is a need for more comprehensive theories of “shopping styles” and their normative relationship to unplanned buying. Promising candidates are theories of shopping goals (e.g., Lee and Arieli 2006), shopping efficiency (e.g., Chandon, Wansink, and Laurent 2000), and the “pain of payment” (Scott, Cryder, and Loewenstein 2008).

“Spending on the Fly: Mental Budgets, Promotions, and Spending Behavior”

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Grocery shopping is an example of a consumer domain where budgeting is commonly found (i.e., Heath and Soll 1996; Heilman, Nakamoto and Rao 2002). More recently, Stilley, Inman, and Wakefield (2009) take the idea of mental budgets further by demonstrating that consumers have a mental budget for the amount of money that they plan to spend on a specific grocery shopping trip and by showing that this mental budget includes room for unplanned purchases. Specifically, they introduce the idea that the trip budget consists of both an itemized portion (amount allocated to planned purchases) and in-store slack (the portion of the mental

budget that remains available for in-store decisions). We argue that the amount of in-store slack remaining at a given point during the trip has important implications regarding the impact of promotional savings. We rationalize four hypotheses which focus on savings on planned items and then present two hypotheses regarding savings on unplanned items.

To test these hypotheses, we conducted a field study in which respondents used a hand held scanner to record the order of purchases. Specifically, 400 customers were systematically intercepted as they entered three different grocery stores located in a southwestern city. Respondents were offered a \$10 incentive that was given to them at the end of the trip (for future use to mitigate a windfall effect). Before they entered the store, respondents were first asked what items they planned to purchase. They were then asked to estimate how much they intended to spend in total and to estimate the cost of the items they planned to purchase (i.e., their itemized budget). This approach allows us to measure the respondents’ in-store slack by subtracting the itemized budget from the total planned spend. After completing these initial questions, respondents were then provided with a handheld scanner gun and instructed how to scan the barcode of each item as they placed it in their cart or basket. This methodology enables us to record the order of purchases and therefore determine which items were purchased before and after the in-store slack was exceeded. After the respondents checked out, they completed an exit interview and their receipt was copied. Respondents also provided their frequent shopper card number, which allowed us to access their shopping history.

Our research makes at least four important contributions. First, we find that savings on planned items before the in-store slack is exhausted are positively related to the amount spent on planned items, but that the amount of the increase depends on income. In fact, we find that savings on planned items before the slack is depleted have no impact on spending for below-average income households. The results support our thesis that the underlying mechanism is that higher income enables stockpiling of the planned items. Second, we find that savings on planned items are positively related to unplanned item spending, but that this relationship only obtains when the savings on planned items are realized after the consumer’s in-store slack is depleted. Third, we show that savings on unplanned items that are purchased before the consumers’ in-store slack is depleted have no impact on basket size except for high income consumers paying with a debit or credit card. This suggests that, for most consumers, the savings are simply absorbed into the in-store slack. Fourth, savings on unplanned items that are purchased after the consumer’s in-store slack is depleted are positively related to basket size for consumers regardless of income or payment method. This suggests that promotions can be effective in encouraging incremental purchases if the promotion is encountered after the consumers’ in-store slack is exceeded. Highlighting the importance of a mental budgeting perspective, our results have theoretical implications as well as implications for the placement of promotions in the store pattern and the nature of promoted items.

“Seeking Emotion Enhancement or Uncertainty Resolution? A Dual-System Approach to Examining Post-Purchase Information Search”

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Leonard Lee, Columbia Business School, USA

Product information search is typically assumed to follow the recognition of a purchase need and to occur before decision making. Once a sale transaction is completed, searching for information

(e.g. price) on the purchased product seems futile and even irrational. Real-life observation and prior research (e.g. Russo and Leclerc 1994), however, suggest that such post-purchase search behavior is pervasive among consumers despite having no apparent consequence.

In this research, we examine the prevalence of post-purchase information (particularly prices of already purchased products) search behavior in shopping and its underlying motivations. We propose two distinct reasons for this behavior—(1) to resolve uncertainty and ascertain that the right purchase decision has been made (Shani and Zeelenberg 2007); and (2) for emotion-enhancement particularly if consumers are confident of having made the right purchase decision. We draw upon Epstein's (1994) Cognitive-Experiential Self-Theory (CEST) as an integrative conceptual framework for these two accounts, and investigate whether the two information-processing styles (experiential or cognitive) may differentially drive post-purchase information search. Specifically, we hypothesize that, while consumers who rely more on cognitive processing during decision making would seek post-purchase product information when they are uncertain about having made the right decision, consumers who rely more on experiential processing focus on their current shopping experience and tend to seek such information for emotion-enhancement purposes, particularly when they are reasonably confident that they have made the right purchase decision. We tested our hypothesis in two experiments.

In experiment 1 (N=86), we traced participants' real-time search behavior in a two-stage online shopping experiment using the mouselab paradigm (Payne, Bettman and Johnson 1993). Participants were endowed with \$10 and asked to shop at an online-shopping website selling five desktop toys (e.g. stress ball, wood-cube puzzle), each presented in the form of a picture, a short description, size specification, and price. Participants had to purchase one item with the given cash. After making their purchase, participants were asked to shop at a second store selling ten desktop toys including the five they had already seen in the first store. (We counterbalanced which five of the ten products participants could buy in the first store.) After a short filler task, participants had to complete the Rational-Experiential Inventory (REI) as a measure of their information-processing style (Epstein et al. 1996). To manipulate participants' degree of confidence in whether they were paying a good price for their purchase in the first store, we told half the participants that the prices were discounted by 50% ("large"), and the other half, 10% ("small"). We found a significant crossover interaction between discount size and participants' information-processing style on their propensity to search within the second store for the price of the product they had already purchased in the first store ($p=.05$). Planned comparisons further revealed that whereas rationally-oriented participants were more likely to engage in post-purchase price search when the discount in the first store was small (57%) than when it was large (32%), experiential-oriented participants were more likely to engage in post-purchase price search when the discount was large instead (43% vs. 27%).

We replicated this result in experiment 2 (N=273) in which we manipulated participants' information-processing style prior to shopping. Participants were asked to complete two purportedly unrelated tasks. In the first task, half the participants were asked to describe a difficult decision they had to make in the past and in which they decided based on careful thinking and it turned out to be the right decision, while the other half were asked to describe a difficult decision they had to make in which they used their feelings instead. Next, participants were asked to imagine that they needed a new MP3 player and decided to buy one after looking at various models at an electronics store; they were told that the store was

having a semi-annual clearance sale with the discount size being 5% ("small") or 50% ("large"). Subsequently, they saw another store that sells the same model of MP3 player they had just bought and had to indicate whether they would enter the store to check out the price of the player. Again, we found a significant crossover interaction between discount size and information-processing style on participants' likelihood to seek out the price of the MP3 player they just purchased ($p=.004$); while cognitively-oriented participants were more likely to search when the discount in Store A was small (61%) than when it was large (50%), experientially-oriented participants were more likely to search when the discount was large (64%) than when it was small (45%).

Together, these findings lend a first look at two contrasting motivations that spur consumers to seek post-purchase information that might appear non-consequential, suggesting disparate situations under which different types of consumers would engage in such behavior.

"There is More to Planned Purchases than Knowing What You Want: Dynamic Planning and Learning in A Repeated Multi-Store Price Search Task"

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As consumers, our lives are full of planning. Understanding the strengths and weaknesses of consumer planning, how planning performance improves with experience, and the possible interventions that may help people form better shopping strategies have important implications for marketers, policy makers, and consumers. Despite the importance of this topic, there is a scarcity of research on consumer planning in marketing. Most research has focused on planned vs. unplanned purchases and defines planned purchases strictly as those items that were fully specified before entering the store (e.g., on a shopping list). These studies did not examine the process of planning itself and ignored the fact that an "unplanned" purchase made in the store can be the result of a well developed plan that intentionally stopped short of full specification. For example, a consumer who has a well-formed plan to choose the lowest priced brand in a small consideration set would be categorized as making unplanned purchases because he does not determine the specific brand before entering the store.

In the current research, planning is defined as developing a scheme or procedure for the accomplishment of an objective before the commencement of the task. Our definition emphasizes the metacognitive aspect of planning in that people intentionally and actively construct, retrieve, and update their plans to achieve their purposes. In order to identify a specific task to study planning, we first conducted two exploratory studies (N=260) in which we asked people to describe how they planned for their most recent shopping trips for different products (e.g., grocery, electronics, clothing). It was shown that both information search and learning from repeated shopping experience are two important components of consumer planning. Based on these pretest results, we selected an activity that is familiar to most consumers, incorporates both information search and learning, and also represents an important research area in marketing for many years—repeated multi-store price search. Specifically, participants were given a total budget and asked to take repeated shopping trips and make a purchase on each shopping trip. They were facing multiple stores that always included at least an EDLP (every day low price) store and a HILO store (charging a high regular price half of the time and a low sale price the other half of the time). Their goal was to minimize their total cost and they were paid based on their performance. In this task, planning consists of two parts: what consumers do at the very beginning to learn about

stores and what shopping strategies they adopt based on what they learn. Based on optimal search for this task, we use the percentage of consumers who both searched exhaustively on the first shopping trip and adopted optimal cherry picking (i.e., visit the HILO store first, if the price is low, make the purchase; if the price is high, switch to the EDLP store to make the purchase) on the last two shopping trips as our dependent variable to measure planning.

We showed in two simulated shopping experiments that consumers often fail to plan optimally and do not appreciate the value of early learning. Fortunately, encouraging consumers to explicitly plan and justify their store visits can improve their performance, and merely planning without thinking about the underlying rationale of the plan is not as helpful. Furthermore, after obtaining relevant experience consumers are able to transfer their planning to shopping in a different situation successfully. Finally, both explicit planning and transfer effects do not result from consumers' increased awareness to cope with memory load and keep all the critical price information in their short term memory.

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