Why Coastal Dwellers May Prefer Tide: the Effects of Conceptually-Related Environmental Cues on Product Evaluation

Jonah Berger, University of Pennsylvania, USA
Grainne Fitzsimons, University of Waterloo, Canada

Little empirical research has examined the implicit effects of environmental cues on consumer behavior. Across four studies using a combination of field and laboratory methods, the authors find that products are more accessible and evaluated more favorably, when the surrounding environment contains more conceptually-related cues. More frequent exposure to conceptually-related cues increases product accessibility and makes the product easier to process. This conceptual fluency, in turn, influences product evaluation and purchase likelihood, which vary directly with the frequency of exposure to conceptually-related cues. These results illustrate that conceptual priming effects can have a strong impact on real-world consumer judgments.

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SYMPOSIUM SUMMARY
Welcome to the Jungle: Understanding How Environmental Cues Influence Consumption in “The Wild”
Lisa A. Cavanaugh, Duke University, USA

SESSION OVERVIEW
How do the various cues in a shopping environment affect consumer choice? Every day consumers are exposed to a myriad of sights and sounds—colorful displays, promotional stands, different store configurations, and music playing over the loudspeaker. While exposure to “priming” in the lab has reliably shown effects on consumers, considerable skepticism remains as to whether these environmental cues do much, if anything, in more complex, real world environments. The purpose of this symposium is to better understand the impact of such environmental cues on consumer behavior, though a mixture of well-controlled lab experiments and real world field studies.

While these environmental cues are recognized by consumers and marketers alike, the extent or the direction of their influence is not well understood. Do the places and people you just happen to pass on your way to the store influence the choices you make? Do crowded stores and narrow aisles influence the products you select? Does ambient music you hear influence the type of products you buy or the size of donation you make at the register? Does the sight of a prominent holiday display make you more likely to indulge yourself or more likely to indulge others? These and other questions will be examined by the papers in this symposium.

Together the three papers in this session address how a variety of sensory cues in the consumer’s environment influence product evaluation, selection, and donation behavior. More importantly, they uncover the underlying mechanisms that drive these effects. To this end, the first paper shows that products are evaluated more favorably and are more likely to be purchased when the surrounding environment contains more conceptually-related cues. The second paper shows that perceptions of physical confinement affect consumers’ variety-seeking behavior. The third paper shows that the imagery and sounds prevalent in store environments around popular holidays (e.g., Christmas, Valentine’s Day) can trigger very different emotional reactions among consumers with countervailing consequences for consumption.

Tanya Chartrand will connect the three papers and serve as the symposium discussant. Tanya is well known for her research on non-conscious goal pursuit and automatic processing of social environments. Her research suggests that much of our daily life is determined by mental processes put into motion by features of the environment, which may operate above or below consumers’ conscious awareness (see, e.g., Bargh and Chartrand 1999). Her comments will integrate the various papers while also encouraging discussion among the audience and suggesting interesting potential directions for future research.

EXTENDED ABSTRACTS

“Why Coastal Dwellers May Prefer Tide: The Effects of Conceptually-Related Environmental Cues on Product Evaluation”
Jonah Berger, University of Pennsylvania, USA
Grainne Fitzsimons, University of Waterloo, Canada

Every day, consumers’ environments bombard them with different stimuli. People see certain colors around particular holidays (e.g., orange on Halloween), may read a lot about Mars in the news when a NASA mission is ongoing, and may see their neighbors walking dogs as they come home from work. Might these diverse cues influence people’s consumer preferences? We know that direct product exposure, through ads and point of purchase displays, should positively affect sales (e.g., Baker 1999; Zajonc 1968), but what about exposure to perceptually or conceptually linked stimuli? The more consumers see Tide advertisements, the more they should like and purchase Tide, but what about exposure to stimuli related to Tide? Might it be the case that the more consumers see stimuli like waves, the more they will like and purchase Tide?

This presentation investigates how exposure to simple cues in everyday environments can influence consumer behavior. Our hypotheses are based on psychological research regarding spreading activation. Situational cues or primes can automatically activate associated representations in memory, leading them to become more accessible (e.g., Higgins, Rholes, and Jones 1977). Accessibility can then spread to related constructs via an associative network (Anderson 1983; Collins and Loftus 1975; Neely 1977). According to this spreading activation account, priming (or activating) a given construct in memory leads to the spontaneous activation of related constructs in memory. Building on processing fluency research (Lee and Labroo 2004; Whitletsea 1993) we argue that this activation should lead to more positive evaluations. Consequently, we argue that exposure to everyday real world stimuli can have important downstream effects on perceptually or conceptually-related products.

Four studies examined how environmental cues prevalent in real-world environments influence the accessibility and evaluation of conceptually-related products. Our first study simply sought to establish that real-world environmental cues can activate—or make more accessible—related product representations. We took advantage of a natural temporary difference in the prevalence of certain environmental cues, by using the fact that exposure to the color orange varies greatly around Halloween. Either right before Halloween, or one week later (when all the pumpkins, etc. disappear), participants were approached outside a supermarket and asked to list the first brands of candy and soda that came to mind. Results indicated that the mere increased presence of the color orange in the natural environment was enough to influence product accessibility; consumer products associated with the color orange (i.e., Reese’s Pieces and orange soda) were more accessible the day before Halloween as opposed to a week later.

Field Study 2 investigated how exposure to conceptually linked environmental cues influences product evaluation. We again relied on the natural environment for stimuli exposure. Some undergraduates ate in dining halls that used trays, while others ate in dining halls that did not use trays. Consequently, participants varied in how frequently they were exposed to trays over our week long study. We also manipulated whether a digital music player (ePlay) was linked to this, versus another, environmental cue. At the onset of the study, half the participants learned a slogan that linked the music player to dining hall trays (“Dinner is carried by a tray, music is carried by ePlay”) while the other half learned a control slogan that linked the music player to a cue (i.e., luggage) that did not vary across groups (“Luggage carries your gear, ePlay carries...
what you want to hear”). Thus in the 2 (slogan) x 2 (environment) design, only one group of participants was exposed to more frequent conceptually linked product cues. One week later, partici-
pants reported their product evaluations and indicated how fre-
quently they had seen trays in the past week.

Results indicated that merely being exposed to conceptually linked product cues was enough to increase product evaluations. Participants who had learned a slogan linking the product to dining hall trays, and ate in dining halls which used trays, liked the digital music player more. A moderated mediation analysis further under-
scored our hypothesis that the effects were driven by differential exposure to conceptually-linked environmental cues. Another study (Experiment 3) found similar effects linking products to a different environmental cue (i.e., luggage). People who traveled during the study, and thus were exposed to luggage more frequently, reported higher product purchase likelihood and greater willingness to pay.

To further examine the role of conceptual fluency in producing these effects, Experiment 4 directly manipulated exposure to conceptually linked environmental cues. Participants were shown either zero, five, or ten pictures of dogs as part of a study on “brightness perception” and then, in an ostensibly unrelated experi-
ment, reported their evaluations of various sneakers, including some from the brand Puma. The results indicated that frequent exposure to conceptually linked stimuli increased product evalua-
tions. Participants who saw more pictures of dogs evaluated puma sneakers more favorably.

Taken together, these studies demonstrate how subtle, every-
day environment cues can have an important impact on consumer behavior. Exposure to conceptually linked stimuli can increase product accessibility, which in turn can lead to increased evaluation and purchase likelihood. These findings deepen our understanding of conceptual fluency (Lee and Labroo 2004) by demonstrating the underlying role of processing ease and examining the effects of frequent (in addition to recent) exposure. They also answer calls from priming researchers (Bargh 2006) by beginning to examine how such effects play out in noisy real world contexts. Seeing dogs can increase evaluations of Puma sneakers and living near the beach (i.e., waves) might even lead people to purchase Tide…

“Physical Confinement and Variety Seeking”
Rui Juliet Zhu, University of British Columbia, Canada

How does physical confinement affect consumers’ behavior? Imagine shopping in a grocery store with narrow aisles; will the feelings of confinement created by the narrow aisles affect your product choices? Building on reactance theory (Brehm 1966; Wicklund 1974), we argue that such physical confinement can lead to psychological reactance, and that one consequence of this reactance is variety seeking.

Reactance theory suggests that when an individual’s freedom is curtailed, she will experience a state of psychological reactance, which in turn will evoke behaviors aimed at regaining her freedom. In the consumer behavior literature, reactance research has focused on the choice context that can induce reactance, such as when constraints are placed on choice sets (e.g., stock-outs, Fitzsimons 2000) or when consumers are offered unwanted advice (Fitzsimons and Lehman 2003). A commonly observed consequence of such reactance is that individuals tend to adopt or strengthen an attitude or behavior that runs counter to what was intended for or presented to them (e.g., Fitzsimons and Lehman 2004). Building on this line of research, in this paper we investigate an important yet novel source of reactance in consumer behavior: physical confinement. We propose that asking individuals to make choices in (relative) physical confinement will evoke reactance. We predict that a unique consequence of this reactance is variety-seeking behavior because it is viewed as an expression of choice freedom (Kim and Drolet 2003). Three studies support our theorizing.

The first study tests our basic hypothesis that a relatively confining versus a relatively less-confining space will lead to more variety-seeking. We randomly assigned participants to one of the two conditions, Wide Aisle (7ft) or Narrow Aisle (3.5ft) using dividers placed in a large laboratory space. At the end of the aisle was a table with six bowls containing six different popular candy bars. Participants were instructed to proceed down the aisle and choose three candy bars of any kind, in any combination they pleased. As anticipated, participants in the Narrow Aisle condition chose a greater variety of candy bars than their Wide Aisle counter-
parts.

In the next study we test the implication of our finding in study 1 to the choice of lesser known brands. We reasoned that where people seek variety they would be more likely to choose brands that they are less familiar with. Another motivation of this study was to test whether aisle width affects overall category choice or only market share. We consider familiar and unfamiliar charities as our “brands” in this study. Seventy-five undergraduate students com-
pleted the study in exchange of $10. We randomly assigned participants to a narrow or a wide aisle as in study 1. We placed a table at the end of the aisle where participants were asked to complete a short questionnaire. In the target task, participants were presented with a list and short description of six charities. Three of these were familiar charities to our participants and three were obscure. Participants were asked to indicate: 1) whether they would be willing to donate any or all of their $10 to any of the charities; 2) if so, how much they would donate; and, 3) how they would allocate their donation among the six charities in the event that they elected to make a donation.

The results revealed a significant influence of aisle width on our participants’ choices. We created two donation intention indica-
tors, one for the familiar charities and one for the unfamiliar charities. No treatment effect was found on donation intentions for familiar charities. However, we found a significant main effect of aisle width on intentions to donate to the less familiar charities, such that participants in the Narrow Aisle condition were more likely to donate to the less familiar charities than their Wide Aisle counter-
parts. Next we examined whether the amount of money people donated differed by condition. There was no treatment effect on total donation amount, which suggests that the overall category choice is not sensitive to aisle width. We did, however, find a difference in the amount of money donated to each cause. Specifically, those in the Wide Aisle condition donated slightly more to the familiar charities. In contrast—and most interestingly—Narrow Aisle participants donated significantly more money to the unfamiliar charities compared with participants in the Wide Aisle condition.

In our third study we examine whether feelings of physical confinement can have the same effect as actual physical confine-
ment. We held constant the aisle width at approximately 5 feet, and evoked a sense of confinement (and reactance) by prompting participants think about how narrow the aisle was (confinement condition) or not (control condition). After completing a series of unrelated measures participants were presented with ten pairs of gambles, and asked to choose one gamble from each pair. Each pair included a high probability, low payoff bet (“P-bet”) and a low probability, high payoff bet (“$-bet”) of approximately the same expected value. We found that participants in the confinement condition were more likely to choose an equal amount of P and $ bets, representing the highest degree of variety seeking, compared with control participants, who tended to prefer $ bets.
Finally, in an in-progress study, we attempt to confirm that reactance is indeed driving our variety-seeking effect using a similar procedure to study 3 where we also measure individuals’ chronic reactance tendency. We anticipate that highly reactive participants should seek more variety when they are asked to focus on the aisle’s narrowness than participants who are not. However, such a difference should be reduced among those who are chronically low in reactance. Initial results seem to support this theorizing.

In sum, we demonstrate that physical confinement can evoke reactance and consequently lead to variety-seeking. Thus, we identify an important antecedent of reactance (i.e., physical confinement) and highlight a unique consequence (i.e., variety-seeking). In addition, this research contributes to the study of how structural aspects of the physical environment affect behavior.

“Happy Holidays? How Sights and Sounds of the Holidays Cue Different Feelings & Consumption Behaviors”
Lisa A. Cavanaugh, Duke University, USA
Gavan J. Fitzsimons, Duke University, USA

How do emotional holiday cues affect consumer behavior in real shopping environments? Generally the holidays are expected to prime positive feelings and large scale expenditure by consumers, particularly around holidays with an emphasis on gift giving, such as Christmas and Valentine’s Day. Each holiday season consumers are flooded with seasonal holiday imagery not only at the shopping malls but also at their local grocery stores. Consumers can rarely pick up a gallon of milk or loaf of bread without passing a colorful display or hearing music reminding them of the upcoming holiday at hand. How do these sights and sounds of the holidays influence consumption? We argue that seemingly small differences in how holidays are portrayed can trigger different types of feelings and appraisals with important consequences for consumption. Our studies look at the impact on the selection of groceries, gifts, food choices, and charitable donations in a real store environment.

Holiday decorations and themed music are often thought to enhance the holiday shopping experience and make people feel happy. Building from the literature on environmental cues (Meyers-Levy and Zhu 2007) and differential response to primes (Wheeler and Berger 2007), we look at how holiday cues differentially affect consumers. We examine how personally relevant cues trigger emotional appraisals (i.e., staves of the situation and options for coping) and hence lead to more or less indulgence. We argue that different types of cues around the same holiday will trigger different types of feelings and meanings with important consequences for consumption. Specifically we test whether different portrayals of the same holiday can shape the choices that consumers make in real store environments. For example, some environmental cues portray Christmas as a religious holiday with manger scenes and traditional music (e.g., Silent Night, Oh Come All Ye Faithful) while others portray Christmas as a non-religious holiday with emphasis on Santa Claus, reindeer, and non-religious music (e.g., Winter Wonderland, Silverbells). Moreover, Valentine’s Day has traditionally been portrayed as a holiday for lovers, however, the greeting card industry and self-affirming singles have worked diligently to reframe Valentine’s Day as a holiday for loved ones more generally (e.g., cards and gifts exchanged between girl friends and siblings). Our series of studies show that the sights and sounds associated with different portrayals of these holidays can lead to very different choices and behavior at the register.

The Christmas Study I. The Christmas studies test our hypothesis that different portrayals of the same holiday will lead to more or less indulgent behavior. We randomly assigned participants to one of two Christmas imagery conditions: Religious or Non-

Religious prior to making product selections. Under the auspices of a greeting card evaluation task, those in the Religious condition were exposed to greeting cards with religious Christmas imagery and music. Those in the Non-Religious condition were exposed to cards with non-religious imagery and music. Participants then allocated a $50 gift certificate between an indulgent and non-indulgent option. Religious affiliation (Christian/Non-Christian) was a measured factor. We found that Christians who saw Religious portrayals were less likely to opt for indulgent products for themselves. Yet, Christians who saw Non-Religious portrayals of Christmas were significantly more likely to indulge than Non-Christians who saw the exact same portrayal.

The Christmas Study II. Participants who had been exposed to either Religious or Non-Religious Christmas imagery entered a store environment. As participants entered the store, either religious or non-religious Christmas music was playing. The key dependent measure was indulgence, specifically the number of store brands vs. national brands selected across a variety of household product categories. Those who had viewed the Religious portrayal of Christmas and heard religious music chose significantly more in-store brands (i.e., indulging the least for themselves and spending less overall). Yet, those who heard religious music were also most likely to choose more indulgent gifts for others. Notably participants did not believe that the music had impacted their choices. Our final dependent measure of interest was donation behavior. After making all their product selections, participants had an opportunity to donate to two different charities—a local charity and an international charity—at the cash register. We find that those who had seen religious imagery and heard religious music playing in store: a) donated the most money and b) donated significantly more money to the international charity than those who heard non-religious music playing in the store environment.

Valentine’s Day Study I. The Valentine’s Day study was designed to test the implication of Christmas study II within a different holiday context and with generation of different types of feelings. Non-partnered individuals sometimes refer to Valentine’s Day as “Single Person’s Awareness Day.” A prevalent stereotype consists of lonely singles home alone engaging in self-indulgent behavior, but we wondered whether this stereotype would hold across contexts. We hypothesized that consumers’ relationship status would affect the way consumers respond to Valentine’s Day cues and indulgence opportunities. In Valentine’s Day study I, female participants were randomly assigned to one of two conditions: Romantic Valentine’s Day imagery or Friendly Valentine’s Day imagery via a greeting card evaluation task. Relationship status (single vs. partnered) was a measured factor. We found a significant interaction of imagery and relationship status such that non-partnered individuals who had viewed the Friendly Valentine’s Day cards were less likely to indulge than those who had viewed Romantic cards.

Valentine’s Day Study II. Female participants were exposed to either Romantic or Friendly Valentine’s Day imagery and then entered a grocery store where they encountered a large Valentine’s Day display (e.g., roses, giant teddy bear, chocolates) and seasonal music playing. Participants made a series of choices in store and checked out at the register. Our key measures of interest were self-indulgence, in the form of choices of foods and money spent on personal care products, and reported feelings. We find that imagery and relationship status influence self-indulgence in distinct ways. Non-partnered females resist tempting food but indulge more with personal care products. Our results show that while Valentine’s Day undoubtedly increases individuals’ awareness of their own relationship status, the effects on their consumption are sometimes counterintuitive but ultimately functional.
In sum, we show that holiday cues which reaffirm important goals can dampen self-indulgence while cues that may threaten goals lead to coping through indulgence.

REFERENCES


