The Effects of Recurrent Mortality Salience Mediated By the Availability Heuristic on Risky Behavior and Subjective Probability

Joseph Thomas Paniculangara, University of Central Florida

Recurrent mortality salience may increase propensity for risky hedonic behaviors as has been observed under conditions of manipulated mortality salience. This recurrent mortality salience could be initiated by conditions of existence that lead to frequent reminders of fatalities associated with such existence. As a result, it is suggested that the availability heuristic would inflate the subjective probability of those causes of mortality that are readily apparent and associated with such existence - leading to lessening of the subjective probability associated with other causes of mortality in domains that are relatively invisible. In terms of support theory, the availability heuristic increases the support perceived for the focal hypothesis and would lead to enhanced implicit subadditivity for the alternate hypothesis. Due to the typicality of risky behavior it might also be possible to elicit implicit superadditivity for judgments of subjective probability relevant to others in contrast to oneself. According to terror management theory, mortality salience results in striving to increase self-esteem. It is suggested that individuals would display risk-seeking behavior as a result of operating in an area of perceived loss of self-esteem relative to their reference points. Further, on release from recurrent mortality salience, such individuals might display risk-averse behavior. Thus, it is proposed that prospect theory can be applied to the malleable dispositional construct of self-esteem. Given the choice between low-risk and high-risk hedonic behavior, individuals would choose the latter when operating under recurrent mortality salience and judge such high-risk behavior as negligible in terms of risk.

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The Effects of Recurrent Mortality Salience Mediated by the Availability Heuristic on Risky Behavior and Subjective Probability

Evidence from AIDS Related Cognition and Sexual Behavior of Indian Truckers

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Extended Abstract

Cognitions related to HIV/ AIDS as well as sexual behaviors of Indian truckers have been the targets of attention from social marketers, as well as the foci of research by academic researchers yielding intriguing results. For example, it was found that only 14% of Indian truckers were aware that using condoms reduces their chances of contracting HIV/ AIDS, yet 79% of them were aware that AIDS is incurable. These and other findings suggest that Indian truckers demonstrate better knowledge of HIV/ AIDS in general than of the specific knowledge that condoms are effective in preventing the spread of the disease. In addition, 75% of Indian truckers believed that the women they had casual sex with could have HIV/ AIDS, but 92% of them believed that there was “no chance” that they would contract the disease in their lifetimes (Bryan, Fisher and Benziger, 2001). It can be assumed that persuasive messages targeted at Indian truckers would urge them to use condoms and such messages would be placed in media patronized by them. Why then, do Indian truckers exhibit low awareness of the protection against HIV afforded by condoms, demonstrate low usage of condoms and believe that they are immune to HIV despite their beliefs that their partners are highly susceptible to HIV? The answer may lie in the high rate of fatalities among Indian truckers on the highways.

The highway network in India is comparatively unsafe with the majority of accidents involving dilapidated trucks driven by truckers who are often either intoxicated or under the influence of cheap narcotics. Major accidents result in wrecks of trucks that are pushed to the side of the highway where they are visible to other truckers (Mohan, 2004). As a result, death due to a highway accident is made much more salient to Indian truckers than that due to diseases such as HIV/ AIDS. In general, death as a result of an accident is highly visible as opposed to death as a result of disease which claims one victim at a time in a private space.

People who are non-professional drivers judge accidents to cause as many deaths as disease, although disease causes 16 times as many deaths as accidents (Slovic, Fischhoff and Lichtenstein, 1982). This effect might be exacerbated for Indian truckers due to the visibility of instances of fatalities resulting from truck accidents, which would probably increase truckers’ subjective probability of death due to accident, owing to the operation of the availability heuristic (Tversky and Kahneman, 1973). Support theory (Tversky and Koehler, 1994) describes subjective probability as a relation between the judgment of the support for a focal hypothesis (description of an event) and that of the alternative hypothesis (description of the other event). Refinements of support theory suggest that if truckers judge the focal hypothesis of death due to accident as highly probable, it would result in discounting of the alternative hypothesis of death due to causes other than accident, as a result of the enhancement effect (Koehler, Brenner and Tversky, 1997). Unpacking the alternate hypothesis into components such as death due to HIV/ AIDS would result in implicit subadditivity. Implicit subadditivity results when the aggregate of the subjective probabilities of the components of the alternate hypothesis exceeds that of the alternate hypothesis. However, a reminder of the typicality of the behavior for the trucker population may result in implicit superadditivity for oneself, since the individual trucker would like to distance himself from the delinquent behavior and implicit subadditivity typical of the trucker population (Sloman et al, 2004) based on a finding related to terror management theory (Arndt et al, 2002).

It is likely that seeing wrecks of trucks by the side of the highway would induce mortality salience in Indian truckers. It also seem plausible that seeing a number of accidents and wrecks of trucks would result in recurrent mortality salience. Mortality salience effects have been explained by terror management theory. According to terror management theory (Greenberg, Pyszczynski and Solomon, 1986), self-esteem serves to protect individuals from anxiety under conditions that remind them of their mortality. Individuals seek to deny their mortality by embracing a cultural worldview and deriving self-esteem from living up to its values. When mortality salience occurs, individuals seek to defend their cultural worldview as well as to increase their self-esteem. An example of the former effect would be resistance to persuasion that carries messages counter to their worldview (Shehryar and Hunt, 2005) especially if the source of such messages was seen to be a member of an out-group (Harmon-Jones et al, 1997). The latter effect could be seen in efforts to reinforce self-esteem in domains that are held to be most relevant to the level of self-esteem of individuals (Goldenberg et al, 2000; Ferraro, Shiv and Bettman, 2005).

Due to the perceived deficiency in self-esteem as a result of mortality salience, it is likely that Indian truckers perceive a loss in self-esteem relative to their subjective reference points. As a result, Indian truckers might be exhibiting risk-seeking behavior due to their perception of relative loss as described in prospect theory (Kahneman and Tversky, 1979). Risky driving behavior has been induced as a result of mortality salience in those for whom driving is important to their self-esteem (Ben-Ari, Florian and Mikulincer, 1999). Similarly, risk-seeking hedonic behavior of unprotected casual sex would probably result due to recurrent mortality salience. Further, it is suggested that release from recurrent mortality salience would serve to boost self-esteem resulting in risk-averse behavior as described in prospect theory.

It is expected that this paper will contribute to social marketing. Apart from Indian truckers, there are myriad other groups who labor under recurrent mortality salience such as the military on active service and even the general population living under threat. It might be seen that the military on active service display a greater frequency of non-combat injuries and fatalities. An understanding of the attitudes toward risk and risky behavior will enable description of risk behavior and cognition under recurrent mortality salience.

References


Negotiating the challenges of communicating HIV/AIDS messages, which include stigma, conflicting cultural ideals, and politically-charged resource constraints, requires a systematic stream of research. Using a series of phenomenological interviews in our exploration of the main constituencies in successful message development and delivery, namely the creative producers, the message developers, and the target audience, we acknowledge the contributions of Cultural Studies theory (Hall 1993) and to a lesser extent the Political Economy of Media (Schiller 1995).

Summary
According to UNAIDS, in 2003 approximately 38 million people globally were estimated to be living with HIV and nearly 3 million died from the disease (www.unaids.org). In fact 95% of the people living with HIV/AIDS are in the developing world with the African, Caribbean and Pacific (ACP) countries suffering the most. Although awareness and knowledge of AIDS levels are steadily increasing among targeted populations, the spread of AIDS in these countries continues to rise at alarming rates.

In response to repeated calls for transformative research and to the moral mandate for a compassionate response to the world’s AIDS crisis, this paper—on an admittedly micro level—investigates the impact of culture and government in mediated communications about HIV/AIDS awareness and prevention in the Caribbean (Rothschild and Anderson 1998; Nowak and Siska 1995; Hill 1993; Mody 1991). Negotiating the challenges of this sensitive topic, which include stigma, conflicting cultural ideals, and politically-charged resource constraints, requires a systematic stream of research. Using a series of phenomenological interviews in our exploration of the main constituencies in successful message development and delivery, namely the creative producers, the message developers, and the target audience, we acknowledge the contributions of Cultural Studies theory (Hall 1993) and to a lesser extent the Political Economy of Media (Schiller 1995). This study focuses on the perspective of the producer of the messages (i.e., creative personnel).

Conceptualization
Cultural Studies theory’s most applicable assertion in the context of this study is its challenge to the linear “sender-message-receiver” pattern of traditional communication theory. According to Hall (1993), there are several complex relationships within each step of the communication process and they are often iterative and vulnerable to what is termed that “oppositional readings” where the intended
meaning of the message is lost or misinterpreted. As a result the audience is empowered and can now be seen as active participants in the communication process. This concept of audience participation is not new to the marketing literature and has been addressed in terms of message comprehension (Burnkrant and Unnava 1995; Greenwald and Leavitt 1984), ascribing meaning (McQuarrie and Mick 1992, Mittal 2002; Thompson, Pollio and Locander 1994), and experiential consumption (Arnould and Price 1993; Bitner 1992) among other concepts.

Additionally, Cultural Studies theory holds that in the course of communication another series of relationships determine what is produced and how it is produced. It is this aspect of the process that is the focus of this particular endeavor—the relationship between the message producers (i.e., advertising agencies and creative shops) and the message developers (i.e., government and community-based organizations). The cultural background of the message designers themselves is significant as the collective experiences of the message designer may help or hurt the message production process. For example, a message producer who belongs to the same cultural background of the audience “...may be more knowledgeable about their problems, but may share their caste and class prejudices...” (Mody 1991, 105). Those prejudices may very well be the ones which contributed to adverse conditions for the audience—conditions which the communication campaign may be designed to reverse or eradicate (e.g., HIV/AIDS stigma).

As Johar, Holbrook and Stern (2001) have duly noted, creativity is appreciated in the marketing discipline, but rarely studied. Much of the literature surrounding the creative aspect of advertising revolves around consumers’ response to various forms (Stewart and Koslow 1989; McQuarrie and Mick 1992; Clow, Roy, and Hershey 2001), the interpersonal relationships among agency personnel and between client and agency (Thompson and Haytko 1997), or the motivational perspectives of a career in art direction or copywriting (Kover, James, and Sonner 1997; Young 2000). The call for scholars and practitioners to think more about the “creative spark, which drives much of advertising” remains virtually unanswered (Zinkham 1995). Consequently, it behooves marketers to gain a richer understanding of the lived experience of the creative personnel who bring these messages to fulfillment.

Method

The proposed study will take place in May 2006 and is in response to an initial round of research by a native graduate student, which dealt with three key issues: 1) assessing the baseline knowledge of key HIV/AIDS issues among the producers and recipients of the message, 2) determining the degree of experiential overlap between these two groups, and 3) gauging the effectiveness of message communication. It considered three main constituencies: 1) the producers and developers of the work (via 11 interviews), 2) the target audience (via a five-person focus group), and 3) the crafted messages themselves (via content analysis of 17 posters). No formal hypotheses were submitted. All activity took place between January and June 2003; however the communication artifacts were used island-wide between January and June 2003.

The results showed there was acceptable baseline knowledge of key HIV/AIDS issues among the producers and selected recipients of the message; however the degree of experiential overlap between these two groups was ambiguous as target audience participation was decidedly problematic. In a similar vein, the lack of a structured research instrument made the task of evaluating messages effectiveness difficult to ascertain. Before developing a subsequent round of research to address the gaps in the preliminary study and collect more statistically compelling data, the study has been reduced into smaller segments, the first being conversations with the producers.

Participants will be asked to describe the events that led up to involvement with this project per the guidelines put forth in Thompson, Locander, and Pollio (1990) for phenomenological interviewing. Interviews will be conversational in nature with the interviewee leading the exchange (both researchers will be present whenever feasible and appropriate). Rather than include explicit inquiry about the professional relationship with non-profits and public sector organizations or the impact of cultural heritage on their work, those lessons are expected to emerge from the data. The interview transcripts will be revisited using a deliberately iterative interpretative approach (Thompson 1997).

Current research objectives revolve around gaining a richer understanding of the following areas of inquiry 1) each participant’s personal journey in their career, 2) the knowledge of key HIV/AIDS issues among the producers, and 3) the process of negotiating form and content of the HIV/AIDS production project. This should help to develop a more theoretical understanding of the process used in message production and uncover any latent patterns in both the content and construction of the mediated communication.

Two frameworks will likely guide the retrieval of meaning from these narrative accounts. The first is the Social Adaptation of Thompson’s Hermeneutic Framework, which includes the following constructs: 1) perception of benefits; 2) consumer resistance; 3) countervailing consequences; and 4) countervailing socio-cultural forces (Rothschild and Andreasen 1998). The second is the UNAIDS/Penn State framework, which affirms five inter-related, behavior-shaping contextual domains—government policy, socio-economic status, culture, gender relations and spirituality (Airhihenbuwa, Bunmi, and Obregon 1999).

Findings/Implications

Preliminary findings from the first study suggest a possible relationship between “consumer resistance” (from the Thompson framework) and “gender relations” (from UNAIDS/Penn State framework), which may help explain, for example, why messages that feature a woman purchasing condoms lack credibility within the Caribbean context. Other issues such as the use of Jamaican patois (a national dialect of broken English), the challenge to solicit the insight of political influencers without obligation to physically represent them in posters, and the need to honor both legislative and cultural restrictions on the type of information shared (e.g., fear appeals or heavily rational, numbers-driven tactics are discouraged and likely will not be funded), exemplify the intersection of theory and practice within a social marketing context and offer tactical routes to improving message effectiveness. Nevertheless, it is anticipated that a richer understanding of the producer’s perspective will further illuminate the meaning of the preliminary findings.

References


SESSION OVERVIEW

More than 20 years of consumer research have demonstrated how changes in the assortment affect variety perceptions, satisfaction, and choice. This session adds to our understanding of the psychological processes leading to these outcomes by revealing: 1) how variations in the structure and organization of assortments change psychological processes, and, 2) how these decision processes are linked to important outcomes such as assortment perceptions and WTP. Specifically, the papers focus on two mechanisms that underlie different reactions to assortments: similarity vs. dissimilarity processing and consumers’ beliefs regarding their ability to preference match.

Poynor and Diehl investigate how different types of externally provided category structures (taxonomic or goal-based) impact the decision process. They demonstrate that taxonomic groupings cause consumers to focus on dissimilarities among items, while goal-based groupings increase the focus on similarities. As a result, participants selecting from goal-based groupings perceive the items in the assortment to be more similar and choose less expensive items from goal-based than from taxonomic sets.

Schlosser and White examine how removing items from a choice set affects opinions of the remaining items. Contrary to predictions based on reactance theory and halo effects, they show that consumers’ reactions to available items depend on the reasons provided for the unavailability and on whether assortment characteristics highlight the similarities among items within the assortment. If similarities are focal, judgments of the remaining items are more favorable when unavailable items were sold out rather than discontinued, but the opposite is true when dissimilarities are focal. Further, choice process satisfaction mediates and individual differences in market knowledge moderate these effects.

Griffin and Broniarczyk investigate the effect of alignable versus nonalignable options on search effort and satisfaction. Nonalignable compared to alignable options trigger greater search. Initially such heightened search effort increases satisfaction because consumers feel they are more likely to find a good preference match. However, further search among nonalignable options makes necessary trade-offs salient, decreasing perceptions of preference match and reducing satisfaction.

These three papers focus on 1) similarity vs. dissimilarity processing and 2) consumers’ beliefs about preference match as drivers of consumers’ reactions to assortments. Their findings demonstrate that 1) Similarity vs. dissimilarity-based processing alters consumers’ reactions to assortments. Engaging in greater dissimilarity testing decreases perceived substitutability among items which affects perceptions of the assortment (P&D), leads to higher WTP (P&D) but also to more negative reactions to stock-outs (S&W). 2) Further, consumers’ beliefs about their ability to preference match also affect reactions to assortments. How consumers react to stock-outs is affected by whether they believe they will be able to choose advantageously from the remaining items (S&W). In addition, consumers’ beliefs about their ability to preference match determine whether an increase in search effort increases or decreases satisfaction (G& B).

These three papers investigate consumers’ reactions to assortments from very different perspectives; however, their findings converge on a few common psychological mechanisms that help improve our understanding of the psychological processes that drive substantive outcomes to assortment differences.

EXTENDED ABSTRACTS

“The Psychology of Category Design: The Impact of Goal-Derived Structures on Consumer Information Processing and Choice”
Cait Poynor, University of South Carolina
Kristin Diehl, University of Southern California

The enormous variety available in retail settings has alternately fascinated and frustrated both consumers and researchers (e.g. Iyengar and Lepper 2000, Schwartz 2004). Recent trends in retailing suggest that major retailers hope to manage such large assortments through reorganization rather than reduction of their stock (Anderson 2005). Our research investigates how different types of externally-provided categories (taxonomic or goal-derived) impact choice by prompting the consumer to adopt different information processing strategies. Particularly, we compare the information processing strategies adopted in taxonomic groupings, which are organized around shared attributes of the alternatives, to the strategies adopted in “goal-derived categories” (Medin and Barsalou 1981) which group items sharing benefits or occasions of use (Desai and Ratneshwar 2003). In one pilot study and two lab experiments, implicit and explicit measures provide evidence for the proposed shift in processing strategies, as well as effects on variety perceptions and prices paid.

Since taxonomic groups highlight structural similarities among options, we propose that consumers adopt an information processing strategy which facilitates discrimination among seemingly similar alternatives. Thus, we expect that consumers will accentuate existing differences and, in line with the classic model of contrast (Mussweiler 2003, Schwartz and Tversky 1980) will create both local and global contrast among these items when options are organized in taxonomic groups.

In goal-based groups, however, consumers face a different processing task: Goal-grouped items do not highlight structural similarities and may even be characterized by attribute dissimilarities. We expect that consumers will first determine a basis for comparison in goal-based groups, by engaging in similarity testing. That is, they will ask themselves, “In what way are these alternatives similar, and therefore, on what basis can I make my decision?” (Johnson 1989). With the identification of each additional basis of comparison, alternatives should become progressively assimilated to one another (Mussweiler 2003). As such, even if the underlying assortment from which choices are made is identical, inter-item as well as overall assortment similarity should be perceived as higher in goal-based groups (assimilation) but lower in taxonomic (contrast) groupings.

Prior research also demonstrates that as perceptions of similarity and product parity increase, individuals are less willing to pay higher prices. Therefore, we predict that as a consequence of the assimilative processing in goal-derived sets, participants will pay lower prices than will participants who make choices from taxonomic sets.
Pilot study In a pilot study, undergraduates imagined that they had a job interview and were shopping for a new pair of shoes. We then directed them to an actual online shoe retailer, Zappos.com, where they browsed the shoe selection organized either in terms of taxonomic identifiers (e.g., high heels, flats, sandals) or occasions of use (e.g., “The Office”, “Rodeo Drive”, “Country Club”). After browsing as long as they wished, participants chose their first and second choice of shoes. They then rated the variety of the website’s overall assortment and the similarity between their first and second choice shoes. Controlling for age and gender, participants who made their selections from the taxonomically-organized site reported significantly higher variety in the set as a whole, as well as less similarity between their first and second choice shoes, than did those who browsed the goal-derived sets. Since this pilot was undertaken in an ecologically valid yet noisy environment, where little control could be exerted over the actual similarities of products viewed, study 1 further investigates our predictions in a very controlled setting.

Study 1 In this study, students chose teas from a simulated online retailer. Participants were randomly assigned to one of three between-subjects conditions. Teas were organized either by taxonomic characteristics (Black, Green, Mint, and Rooibos), by the goal they help achieve (Energy-Boost, Stress-Relief, Cardio-Health, and Weight-Loss), or, for the control condition, grouped randomly into four pages (Page 1, Page 2, Page 3, Page 4). Importantly, the same 32 teas appeared in all conditions and were available to all participants.

After reading basic information about tea, participants browsed the site, selected at least 4 teas which interested them for consideration, and identified a first and second choice from their consideration set. They then rated the perceived similarity of items in the assortment and the perceived similarity of their first and second choice. We used two implicit measures to investigate the underlying decision processes. As such, participants were presented with their consideration set and asked to sort the set into two groups as they saw fit. Assimilation processes triggered by goal-derived groupings should create closer associations among options resulting in greater psychological cohesion. When assortment are organized along goal-derived categories it should therefore take longer to sort items and the proportion of items sorted into the two groups should deviate from a 50-50 split.

As predicted, assimilation processes in goal-derived groups are found both relative to taxonomically-organized sets and relative to the control group of randomly-organized alternatives. Participants in the goal-derived condition reported greater similarity between their first and second choice items as well as among all the items in the assortment, compared to participants who chose from taxonomic organizations and participants who chose from the randomly-ordered sets. In addition, analyses of the time taken to sort the individuals’ consideration sets and the balance of the sorted groups suggest that choosing from goal-derived sets results in higher levels of psychological cohesion among alternatives than choosing from taxonomically-grouped sets, supporting the proposed psychological process.

Study 2 Study 2 adapted the basic experimental paradigm used in Study 1, adding a within-subjects covariate trial, prices for each tea and an incentive compatible payment scheme. This adaptation allows us to examine the effect of external categorization on prices paid. In this study, all participants first selected a tea from a randomly-ordered set, providing us with an individual-level willingness-to-pay measure. They were then assigned to either the goal-derived or taxonomic condition. As anticipated, participants choosing from the taxonomic organizations chose options at a significantly lower price than participants choosing from the goal-derived sets.

This research demonstrates that different external category structures can generate both theoretically interesting and managementally important effects. We demonstrate that taxonomic and goal-based organizations alter the way in which consumers process information, and thus that differences in category structures impact perceptions of inter-item similarity, change perceptions of assortment variety and prompt consumer to pick lower priced products. Future research may compare these findings to situations where preferences are held more strongly and in particular consider how other types of groupings, such as those based on brands, may impact consumers’ perceptions and choices.

“The Company They Keep: The Influence of Reasons for Option Limitation on Assortment Judgments”
Ann Schlosser, University of Washington
Tiffany White, University of Illinois

Prior research has demonstrated that adding alternatives to existing choice sets can influence judgments of original items in the set (e.g., Huber, Payne and Puto 1982; Simonson 1989). Receiving far less direct attention is the effect of removing alternatives from a set on judgments of the remaining items in the set (Zhang and Fitzsimmons 1999). Research has shown that compared to having all alternatives available to choose from, removing items from a choice set (option limitation) can negatively affect satisfaction with the choice process (Zhang and Fitzsimmons 1999) and can increase store-switching behavior (Fitzsimons 2000; Broniarzczky, Hoyer and McAlistier 1998). Yet, option limitation can have positive effects as well. For instance, option limitation can lead to higher decision satisfaction when the consideration set is large than small, presumably because it reduces the difficulty in making a choice by decreasing the number of alternatives that need to be compared (Fitzsimons 2000). We argue that the effect of option limitation on assortment judgments also depends upon the reasons firms provide for item unavailability, namely whether unavailability is attributed to high demand (sold out) or low demand (discontinued), as well as characteristics of the assortment that highlight similarities between items in the assortment. Specifically, if the reasons for unavailability are favorable due to high demand (sold out), then judgments of the remaining items should be higher to the extent that the assortment is perceived as likely to contain other similar items. This can occur when the assortment is large or when the assortment is organized in a way that causes individuals to process the choice options in terms of their similarities rather than differences. However, the reverse should occur when the reasons for unavailability are less favorable due to low demand (discontinued).

Our predictions qualify those of reactance theory. Brehm’s (1966) framework suggests that when one’s freedom to choose is threatened (e.g., items from an assortment are no longer available to choose), individuals experience a strong motivation to restore that freedom, often by derogating the source of the restriction (Fitzsimons and Lehmann 2004). Moreover, reactance is often greater to the extent that the removed item is preferred (Clee and Wicklund 1980). Hence, consumers may feel greater reactance when the reason for the removed item is preferred (it was in high demand) than when it would not be preferred (it was in low demand). Consequently, judgments of the available items may be lower when the reason for option limitation suggests that the unavailable alternatives would have been preferred (sold out) than not preferred (discontinued).

Alternatively, responses to option limitation may exhibit a halo effect (Thuridike 1920). Specifically, the favorableness of the
reasons for option limitation may spill over to affect the judgments of the remaining items in the assortment. Existing research suggests individuals’ general impression about a target causes them to judge the target similarly on other dimensions (Solomonson and Lance 1997). As a result, individuals’ general impressions are relatively homogeneous across their evaluations. Likewise, the reasons for option limitation may influence individuals’ general impressions of the assortment such that consumers’ opinions of the remaining items in the set should reflect the favorability of the reason for option limitation. That is, judgments of the remaining items in an assortment should be higher when the reasons for option limitation are favorable than unfavorable (i.e., sold out vs. discontinued).

We test our predictions against these contrasting accounts in three experiments in which we vary the reasons for option limitation (i.e., sold out or discontinued) and assortment characteristics (i.e., assortment size and organization). In study 1, we reasoned that individuals would perceive greater similarity among items when the assortment size is large than small. In study 2, we held fixed assortment size and manipulated assortment organization, specifically the extent to which assortment items were organized in a manner that facilitated item-specific (i.e., attending to the differences between alternatives) or relational (i.e., attending to the similarities between alternatives) processing. Finally, in study 3, we tested an important moderator of these effects. Specifically, if our findings are indeed driven by consumers’ intuitions about relative demand for sold out versus discontinued items, then our effects should hold only for those with relatively high versus low knowledge about market forces (e.g., the economic logic of supply and demand). Across these studies, we find that judgments of the available items depended not only on the reasons provided for option limitation but also upon factors influencing the likelihood that assortment items were similar. Specifically, when assortment was perceived as containing similar items, judgments were more positive when the unavailable items were labeled as sold out versus discontinued. However, when the assortment was perceived to contain dissimilar items, judgments were more favorable when unavailable items were discontinued versus sold out (study 3). Furthermore, we find that this interactive effect is mediated by participants’ beliefs that they were able to choose the best option from the remaining items (study 2) and moderated by individual differences in market knowledge (study 3).

Theoretically, we contribute to the choice literature, which has examined the influence of adding items to a choice set on attitudes towards existing items in the set, but has devoted far less attention to understanding the impact of removing items from the choice set on evaluations of the existing choice items. We also contribute to the choice reduction literature by demonstrating that the influence of option limitation on judgments of the available assortment is moderated by the reasons for the reduction and whether other similar items are likely to exist in among the remaining alternatives.

“Search Paradox: The Role of Feature Alignability in the Rise and Fall of Satisfaction”
Jill Griffin, University of Evansville
Susan Broniarczyk, University of Texas at Austin

“Man is the only animal whose desires increase as they are fed; the only animal that is never satisfied.”
Henry George (1839-1897)

This research seeks to identify situations where people are compelled to search further in spite of diminishing satisfaction. Specifically, we examine the role feature alignability plays in search quantity and search outcomes. A set of options can be considered alignable when it contains options that vary along a comparable feature. In contrast, a nonalignable set contains options that vary along non-comparable or unique features (Markman 1999; Gourville and Soman, 2005).

Searching among nonalignable options can increase learning about different features and benefits, whereas searching among alignable options provides information on just a single dimension. Consequently, it is argued that search among nonalignable options is more informative and engaging than is search among alignable options. Therefore, we expect greater search among nonalignable options than among alignable ones.

The impact of search on satisfaction is subject to a dual effect. Considering more options increases the chances of finding a close match to preferences (Baumol and Ide 1956). This is the basic argument for the cost-benefit tradeoff to search (Stigler 1961) where more effort leads to greater reward, in this case higher satisfaction. However, increased search can also increase desires for various features of a product. When physical product constraints or budget constraints require difficult tradeoffs to be made, an increase in desires can increase the psychological cost of choosing, decreasing satisfaction. We anticipate that both effects occur simultaneously. Which effect will dominate depends on the type and the number of options considered.

Regardless of alignability, we expect an initial increase in satisfaction from search as a person finds the feature or level of the feature that is most appealing. Nonalignable options are inherently more dissimilar than alignable ones, so we would expect a greater initial increase in satisfaction as the chance of finding a good match to personal preferences increases substantially with the first few nonalignable options searched.

As search continues, desires increase and the psychological cost of choosing begins to mount as tradeoffs must be made. When choosing among alignable options, a person receives some level of the alignable feature regardless of the choice, so the psychological cost of choice is not too great. In contrast, a choice among nonalignable options is inherently associated with feelings of loss as people pre-attach to various features of the options during search (Carmon, Wertenbroch, and Zeelenberg 2003) but cannot have them all. This would predict a greater decrease in satisfaction resulting from search among nonalignable than among alignable options.

The results of two studies support this dual effect of search on satisfaction for nonalignable but not for alignable options. Specifically, people experience an initial increase and then decline (inverted U shape) in satisfaction with continued search among nonalignable options, whereas satisfaction remains fairly flat for alignable options.

Study 1 is a mixed design: 2 (feature alignability) x 3 (number of options) x 2 (category). Feature alignability is a between-subjects factor with features being either alignable or nonalignable. Number of options is a between-subjects factor with participants viewing 3, 9, or 15 options in a category with negative attribute correlation. Category is a within-subjects factor including the categories of computers and mp3 players with order counterbalanced. Participants are directed to a website and instructed to examine options and select the one they would be most likely to purchase.

The results demonstrate that people are inclined to search further among nonalignable than among alignable options. Furthermore, alignability of options moderates the impact of search on desires congruency. An inverted U shape for satisfaction with respect to search is found for nonalignable options but not for