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Same Prime, Different Effects: Segmentation in Nonconscious Behavior Influence

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Three experiments demonstrate that the same primed construct (e.g., a formal event) has different effects on the subsequent choices of different groups of people (e.g., men and women). Further, these differences in prime effects are attributable to the different associations these groups have with the primed construct. These effects are demonstrated with three different primes and choice domains, and differences in effects are shown with both demographic (e.g., gender) and personality (e.g., extraversion) characteristics. These results highlight the importance of understanding unique, personal associations to primes and demonstrate that segmentation is also important for predicting more automatically driven choices.

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SPECIAL SESSION SUMMARY

From First to Second Generation: Moderated Nonconscious Behavior Effects

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SESSION SUMMARY

Consumer behavior researchers are becoming increasingly aware of the variety of nonconscious influences on behavior (e.g., Dijksterhuis, Smith, van Baaren, & Wigboldus, 2005; Chartrand, 2005; Simonson, 2005; Janisewski & van Osselear, 2005), and it is now generally acknowledged that stimuli can affect people's behavior without their intention or awareness. Research in this area is entering its second generation. Whereas most previous research was aimed at demonstrating that these effects occurred, more recent research is aimed at illuminating moderators for these general effects. Can the same prime have different effects on different groups of people? Can established effects be reversed? Can primes have the same effects on behavior, but operate via different mechanisms under different conditions and for different people? The present session outlines several individual difference and situational moderators of established automatic behavior effects. These moderators illustrate the boundary conditions that identify when and among whom these effects occur, but also lend evidence regarding their mechanism.

The first presentation, by Wheeler and Berger, shows that the same prime can have different, and sometimes opposite effects on choice, depending on the unique personal associations recipients have with the prime. Across three experiments and using both demographic and individual difference segmentation variables, they show that the effects of primes on choices of different groups of people can be predicted by understanding their personal prime associations. The experiments further demonstrate that the differential priming effects are mediated by the unique personal associations the recipients have with the prime.

The second presentation, by Dalton and Chartrand, examines how exposure to relationship partners affects goal pursuit. Whereas previous research has demonstrated that exposure to relationship partners leads to pursuit of the goals they have for the prime recipient, the current studies show that these effects can be reversed. The first study shows that accessibility of overly controlling relationship partners actually leads to pursuit of goals incompatible with those the relationship partner has for recipients, presumably in an attempt to restore personal freedom. The second study lends additional evidence for this account by showing that low reactance individuals pursue the goals of salient relationship partners, but high reactance individuals do not. Hence, reactance can automatically moderate nonconscious goal pursuit and can manifest both as a function of prime targets and individual differences.

The final presentation, by Smeesters, Wheeler, and Kay, examines direction of focus as a moderator of whether primes will affect behavior via perceptions of others or more directly. They hypothesized that when features promote focus on other individuals in the situation, perceptions of those individuals will be biased by activated constructs, and changes in behavior will be mediated by such perceptions. When features promote self-focus, on the other hand, behavioral changes will not be mediated by perceptions of other people. Across a series of studies, and using both manipulations and measurements of self-focus vs. other-focus, they supported these hypotheses. Their studies show that primes can generate the same effects on economic decisions, but via different mechanisms, depending on the level of other focus.

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EXTENDED ABSTRACTS

"Same Prime, Different Effects: Segmentation in Nonconscious Behavior Influence"

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Segmentation has long been recognized as a critical procedure in influencing consumer behavior. The varying needs, wants, experiences, and psychological characteristics of different consumer groups require individualized marketing attempts tailored to these subsets of people. Although the need for segmentation has been widely acknowledged for traditional marketing campaigns, the importance of segmentation for more non-conscious influence attempts has not been recognized. Indeed, one part of the power of such influence techniques is the assumed potential for them to influence different people in similar ways. Because such influence techniques rely on basic associative processes, it has been implicitly assumed that stimuli should exert consistent effects across different types of people.

In the present experiments, we demonstrate that the same primes can exert different, and sometimes opposite effects on recipients, depending on the unique personal associations they have to the primed stimulus. Much as unique experiences and associations can affect responses to more deliberate influence attempts, we show that they can also affect less overt influences. Across three studies, and using both demographic and individual difference segmentation variables, we show that different subgroups of consumers exhibit predictable differences in their responses to primes. Specifically, we show that primes can significantly affect consumer choice, but that the effects differ across subgroups of individuals who tend to have different prime associations.

The first experiment used the domain of clothing shopping. Pretests indicated that men and women have different shopping associations. Whereas men tend to be more "purpose-driven" or pragmatic and efficient, women tend to be more "possibility-driven" and browse just to see what is out there. We predicted that these different tendencies, once activated, would influence participants' subsequent choices in an unrelated task. Thus in the main experiment, men and women were randomly assigned to write about either clothes shopping or a control topic (i.e. geography).

Then in an ostensibly unrelated study they were asked to make a series of hypothetical choices, some of which between more “purpose-driven” and “possibility-driven” options (e.g., driving a direct route cross-country vs. taking the scenic route). Results indicated that the effect of the prime on subsequent choices differed based on participants’ gender; writing about shopping (versus geography) led women to make more possibility-driven choices in the subsequent context whereas it led men to make more purpose-driven choices.

The second experiment used the domain of formal events. Pretests indicated that when attending a formal event, men have a goal to dress rather similar to others, whereas women have a goal to dress rather differently from others. Thus in the main experiment, men and women were instructed to write about attending a formal event (or geography) before choosing between different products. Results again indicated different effects of the prime based on gender; women who wrote about the formal event (versus geography) subsequently chose more unique items whereas men who wrote about the formal event tended to choose more common items.

In the final experiment, introverts and extroverts were instructed to write about attending a party (or geography) before selecting different items they would like to receive in a drawing. Previous research has demonstrated that introverts and extroverts have different optimal levels of arousal. Introverts are aroused more easily than extroverts. As a result, they prefer lower-arousal situations and tend to be more easily over-aroused than extroverts. Consequently we predicted that thinking about a party would affect the subsequent choice of introverts and extroverts differently; introverts should be subsequently more likely to choose more low-arousal prizes, consistent with their desire to lower arousal at parties, whereas extroverts should be less affected by the prime. Results confirmed this hypothesis. Further, additional analyses showed that these different effects were mediated by the different associations (i.e. level of stimulation) that introverts and extroverts have with parties.

“Nonconscious Relationship Reactance: When Significant Others Prime Opposing Goals”

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Numerous empirical investigations demonstrate that goals can be activated by the environment and pursued outside of individuals’ conscious awareness and intent (for a review, see Chartrand, Dalton, & Cheng, in press). Recent research demonstrates that one environmental antecedent of nonconscious goal pursuit is “significant others.” Fitzsimons and Bargh (2003) reported that filling out a questionnaire about a friend led participants to nonconsciously pursue an interpersonal goal to help others. Likewise, Shah (2003) found that subliminally priming the name of a significant other led participants to nonconsciously pursue a goal that a significant other had for them. These and other studies (Aarts, Gollwitzer, & Hassin, 2004; Anderson, Reznik, & Manzella, 1996) demonstrate that unobtrusively activating significant other representations can put associated goals into operation automatically. But do individuals always assimilate to the goals they associate with significant others? Can goal contrast occur, even at a nonconscious and automatic level?

Despite the importance of preserving social relationships (Shah, 2003; Fitzsimons & Bargh, 2003) and the strength of social influences in general (e.g., Milgram, 1963; Rosenthal, 1985), sometimes individuals behave in opposition to social influences. For instance, when individuals feel that social forces threaten their autonomy, they are compelled to behave in oppositional ways. This

motivational state and the resulting behavior have been labeled *reactance* (Brehm, 1966). We reason that the motivational state of reactance is not unlike other motivational states: the frequency and consistency with which one has experienced it in a particular situation will determine whether it can be nonconsciously activated. Therefore, individuals who have habitually experienced reactance while interacting with a significant other should come to have this motivational state automatically evoked upon exposure to the significant other. Following from this view, we conjecture that whether individuals’ goal pursuits automatically assimilate to, or contrast away from, their significant other’s wishes will depend on whether or not individuals perceive their significant others as threats to their personal freedoms. We test this hypothesis in two experiments.

Experiment 1

Embedded in a large mass testing session, students completed a Significant Others Questionnaire. In it, students indicated the first names of the people who most want them to work hard, have fun, and 8 other goals (included to hide the purpose), and then rated these people on various dimensions. Students were later recruited for the main experiment if they listed different people for the work hard and have fun goals, and if their ratings for those two people fell within the upper quartile of responses to the questions, “how much does that person trigger that motive or emotion in you?” and “how much does that person want to control you?”.

When they arrived for the experiment, participants were randomly assigned to be subliminally primed with the name of the significant other who wanted them to work hard or have fun, under the guise of a “visual acuity task.” Next, participants completed a 17-item anagram task, followed by a funneled debriefing that probed for suspicions about the experimental procedures.

We predicted that subliminal exposure to the name of a controlling significant other would produce automatic reactance, such that participants primed with the name of a controlling significant other would answer fewer anagrams correctly when that significant other wanted them to work hard compared to when that significant other wanted them to have fun. This is precisely what we found. Moreover, participants (in both Study 1 and 2) were not suspicious of the true relation between the experimental tasks or aware of the nature of the primes, suggesting that the significant other primes affected participants’ anagram performance nonconsciously. These results suggest that people who perceive a significant other as highly controlling automatically and nonconsciously reject the wishes of that significant other and instead pursue goals that oppose those wishes.

Experiment 2

We reasoned that people’s perceptions that their relationship partners are controlling might often be related to a more habitual tendency to believe that people in general wish to control them. Thus, rather than measuring the extent to which individuals perceived significant others as controlling, in Study 2 we measured trait reactance. In addition, we sought to examine the role of trait reactance as a moderator of the influence of significant other primes on goal-directed behavior, so we included participants who expressed reactant tendencies to varying degrees on an individual difference measure.

In the experiment, participants first completed the Significant Others Questionnaire. Next, in a so-called “divided attention task,” participants were subliminally primed with the name of the significant other who wanted them to work hard, relax, or an 8-letter string that did not resemble a word (control condition). Participants then

completed a 28-item anagram task, the 11-item Hong Refined Reactance Scale (Hong, 1992; Hong & Faedda, 1996), and finally, a funneled debriefing.

We predicted that trait reactance would moderate the effect of significant other priming on goal-directed behavior. As predicted, in response to significant other primes, low reactant participants pursued the goals their significant others had for them, while high reactant participants pursued opposing goals. Our results also showed that trait reactance was associated with perceptions of control: high reactant participants rated their significant others as more controlling than did low reactant participants. Therefore, although the triggers of reactance varied from other people (in Study 1) to individual differences in reactance (in Study 2), the data suggest that the mechanism underlying automatic reactance in both studies is the perception of significant others as threats to autonomy.

Conclusion

Our research demonstrates that it is possible for people to reject the wishes of significant others and engage in behaviors that directly oppose significant others' wishes, all without conscious intention or awareness. We have identified two triggers of this effect, both based on perceptions of control: (1) significant others perceived as controlling, and (2) individuals chronically high in reactant tendencies, who tend to see others as controlling. Both triggers result in automatic and nonconscious reactions against significant others' wishes.

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"Nonconscious Effects on Economic Decisions: The Role of Perceptual Construals in Mediating Priming-to-Behavior Effects"

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Recent consumer behavior literature has suggested that research should investigate to the extent to which behaviors thought to be deliberate can be influenced by non-conscious processes (e.g., Bargh, 2002; Dijksterhuis, Smith, Van Baaren, & Wigboldus, 2005). Many seemingly deliberative behaviors (e.g., answering quiz questions, Dijksterhuis & van Knippenberg, 1998) can be influenced by factors that operate outside of awareness. Although researchers have established a wide range of non-conscious influences, the mediational paths by which effects operate have received relatively little attention (Bargh, 2006; Wheeler & Petty, 2001). The present paper examines (a) to what extent decisions made in various economic decision-making situations (e.g., the ultimatum game) can be non-consciously influenced, and (b) potential mediational paths (e.g., perceptual construal of an interaction partner) for such effects. The present studies also provide evidence of moderated mediation; that is, our studies provide insight into when different mediational paths will be responsible for economic choices in these situations.

We have conducted several studies in which we examine how priming of cooperation-related constructs (e.g., kindness/unkindness, cooperation/competition) affects behavior in various economic decision-making situations. These situations are interpersonal—a decision maker must decide whether to make a relatively cooperative or competitive economic decision toward another person. In some cases, primes could affect these economic decisions indirectly by affecting perceptions of the other person (e.g., seeing them as more competitive) and hence one's own behavior (e.g., allocating less to them). In other cases, primes could affect these decisions through other routes (e.g., directly influencing behavior). A critical determinant of how primes may affect decisions in these contexts could be the extent to which the decision maker is focused on the other person (Neuberg & Fiske, 1987).

As the focus on the other person increases, the likelihood of the prime biasing perceptions of the other person should also increase. The extent to which one is other-focused can depend on the situation as well as dispositional factors. Some situations require greater focus on other people and some individuals are more chronically other-focused than others. We predicted that when other-focus is increased in economic decision-making situations, individuals will form impressions of the other person consistent with accessible constructs and these impressions will mediate their choices. For example, if one is primed with competitiveness, one will perceive the interaction partner to be more competitive, and as a result, act more competitively oneself (van Lange & Kuhlman, 1994). Therefore, when other focus is *high*, primes should *indirectly* affect decisions, mediated via perceptual construal of the interaction partner. On the other hand, when other-focus is *low*, primes should *directly* affect perceptions, without affecting perceptual construal of the interaction partner.

In our first study, participants were invited to play an ultimatum game. In this game, participants propose a division of money between themselves and an interaction partner. If the partner accepts the division, each person gets the proposed amount. If the partner refuses the division, neither person receives any money. We were interested in whether and how the primed constructs would affect their decisions. This study had a 2 (priming: unkind primes vs. neutral primes) x 2 (other focus: high vs. low) between-participants design. Participants were either subliminally primed

with unkind-related concepts or neutral concepts. In addition, participants were assigned to either the high or low other-focus condition. This was manipulated by using a translation task developed by Davis and Brock (1975), in which participants guess the meaning of foreign words using either first-person pronouns or third-person pronouns. We measured each participant's impression of their interaction partner as well as their level of cooperation in their allocation.

Results supported our hypotheses. In the low other-focus condition, the primes affected level of cooperation, but not impressions of the interaction partner. Participants were less cooperative when primed with the unkind words, but their impressions of their interaction partner were unaffected. In the high other-focus condition, the primes affected both level of cooperation and impressions of the interaction partner. Participants were less cooperative when primed with the unkind words, and they also perceived their interaction partner to be less kind. Mediation analyses showed that their allocations were mediated by their perceptions of the interaction partner. Thus, priming can both directly and indirectly affect behavior, depending on the level of other-focus.

Two additional studies replicated and extended these results using different situations (i.e., reciprocal and non-reciprocal dictator games), different primes (i.e., competition and cooperation primes), and an individual difference variable of other focus (i.e., communal orientation, Clark, et al., 1987). They illustrate that in games promoting high levels of other-focus (i.e., reciprocal dictator games), effects of primes on behavior are mediated by impressions of their interaction partner. In games with low levels of other focus (i.e., non-reciprocal dictator games), the effects of primes on behavior are *not* mediated by impressions of the interaction partner. They also find that the effects of the primes on behavior are mediated by perceptions of their interaction partner for individuals high, but not low, in communal orientation.

These studies show that behaviors traditionally assumed to be rational and deliberate can be non-consciously influenced by making cooperation/competition-related concepts more accessible. In support of Bargh's (2006) plea to outline the different pathways by which primes can affect social behavior, we demonstrated that primes can affect decisions in both direct and indirect ways depending on recipients' level of other-focus. This moderated mediation approach provides new and exciting insights into the multiple means through which accessible constructs can guide behavior as well as when each mechanism is likely to be in operation.

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SPECIAL SESSION SUMMARY

Variety, Expectations and Choice

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SESSION OVERVIEW

Consumer's choices, and the satisfaction consumers derive from these choices, are often dependent on the expectations they hold. This session uses consumer expectations as a foundation for investigating the role of product assortment and variety-seeking in consumer choice and satisfaction. Building on the existing literature (Chernev 2003a; Iyengar and Lepper 1999; Iyengar and Lepper 2000; Kahn and Wansink 2004), this session investigated the role of variety and consumer expectations as they affect the choices consumers make, the satisfaction consumers derive from their choices, as well as the satisfaction consumers derive from choices made on their behalf. The session unified the findings of the individual papers into a broader framework for conceptualizing the psychological mechanisms underlying the impact of consumer expectations on satisfaction and choice in a variety of different decision contexts. Specifically, the session addressed the following issues:

Research presented by Chernev and Hamilton examines how assortment size influences consumer choice among assortments and, in particular, how assortment attractiveness moderates this process. They propose that, based on consumer expectations of the attractiveness of the options comprising the available assortments, the preference for larger assortments is likely to decrease as the overall attractiveness of both assortments increases. The data from five experiments offer converging evidence in support of this prediction.

In the second paper, research by Diehl and Poynor examines the role of consumer expectations when choosing from assortments. In particular, they argue that larger assortments raise consumers' expectations of how well options from an assortment will fit their preferences. Higher expectations may give rise to negative disconfirmation when searching a particular assortment thus reducing satisfaction with any chosen option. Findings from three studies show that larger assortments can lead to lower satisfaction due to expectation-disconfirmation.

In the third paper, three experiments by Aggarwal and Botti investigate the role of expectations in consumer evaluations of an option from a given assortment that is self-chosen versus the same option if it were chosen for the consumer by the marketer. In particular, they argue that consumers' satisfaction with choice is a function of their expectations about the motivations driving the marketers' decision. These motivations, in turn, are inferred using the norms guiding the consumer-marketer relationship; satisfaction will be lower in the context of exchange relationships, which are based on the principle of quid pro quo, than in communal relationships, which are based on the principle of mutual concern for well-being.

At the end of the session, the discussion leader, Barbara Kahn, led a research dialogue to integrate the individual presentations into a more general framework. In doing so, she engaged the audience participants in a discussion aimed at facilitating a broader understanding of the role of consumer expectations in shaping preferences and satisfaction.

EXTENDED ABSTRACTS

“Too Much of a Good Thing? Option Attractiveness and Assortment Choice”

Alexander Chernev, Northwestern University

Ryan Hamilton, Northwestern University

On a daily basis, consumers are faced with decisions that involve choosing among sets comprised of multiple options, such as choosing among the assortments offered by different retailers. These assortments may vary in size, defined by the number of available alternatives. Assortments may also vary in terms of the attractiveness of the options of which they are comprised. In this research, we examine how assortment size influences consumer choice among assortments and, in particular, how assortment attractiveness moderates this process.

Most prior assortment research has focused on understanding consumer decision processes associated with making choices from a given assortment (Hoch, Bradlow, and Wansink 1999; Kahn and Wansink 2004; Schwartz et al. 2002; for a review see Broniarczyk forthcoming). Relatively little research has examined how consumers make choices among assortments prior to selecting a particular option from one of the available assortments. In particular, the extant research on choice among assortments has focused on issues such as the role of preference uncertainty (Kahn and Lehmann 1991), choice set structure (Gourville and Soman 2005; Sood, Rottenstreich, and Brenner 2004), and decision focus (Chernev 2006). The question of how the attractiveness of the options comprising the available assortments influences consumer preferences for these assortments has remained largely overlooked by prior research.

Building on the notion that choice among assortments is a function of the balance of their advantages and disadvantages, we propose that the choice of an assortment is a function of the relative attractiveness of the options comprising the available assortments. In particular, we argue that when choosing among assortments, consumers aim to minimize the cost-benefit tradeoffs associated with selecting a particular assortment. Thus, on the benefit side, consumers expect larger assortments to offer a greater variety of options, which increases the probability of a better fit between a consumer's preferences and the available choice alternatives. On the cost side, consumers choosing from larger assortments might expect to expend greater cognitive effort in evaluating choice alternatives and have greater difficulty in making a choice.

In this context, we argue that the expected advantage of the larger assortment with respect to the smaller one is greater when assortment attractiveness of both assortments is low rather than when it is high. This proposition is based on the concavity of the value function, which implies that an increase in an object's value on a particular attribute will be associated with a decrease in this attribute's marginal utility, and, as a result, the perceived difference between two alternatives will decrease with the increase of the options' overall attractiveness.

The validity of this prediction is tested in a series of five empirical studies. The first experiment examines the impact of option attractiveness on choice among assortments by asking participants to choose between large or small assortments in a

variety of different consumer situations. This experiment documents that smaller assortments are more likely to be chosen when the attractiveness of the options in both sets is high rather than when it is low. In fact, the data show not only a decrease in the relative share of the larger assortment, but in some cases, also a preference reversal in which the choice share of the smaller assortment was actually greater than that of the larger assortment. Building on these findings, the second experiment lends further support to the experimental predictions by showing that the predicted relationship between attractiveness and assortment choice by matching the items in the choice sets with participants' previously revealed subjective preferences. The data from this experiment are consistent with the findings from experiment 1.

The third experiment directly tests the cost-benefit theory of the impact of option attractiveness on assortment choice by examining how the magnitude of the difference in the sizes of the larger and the smaller assortments moderates the impact of assortment attractiveness on choice. We argue that when choosing among assortments comprised of more attractive options (relative to assortments comprised of less attractive options), the marginal benefits of the extra options present only in the larger assortment are likely to be smaller, weakening the preference for the larger assortment. Experiment 3 tests this prediction by asking participants to choose between either more attractive or less attractive assortments of varying sizes. To illustrate, in this experiment, some participants chose between assortments of 9 and 18 options (small relative size difference) and other participants chose between assortments of 9 and 54 options (large relative size difference). The data show that not only was the smaller assortment more likely to be chosen when both assortments were comprised of relatively attractive options, but also that this effect was more pronounced when the relative size difference between the assortments was greater.

The fourth experiment examines how decision focus moderates the impact of option attractiveness on choice among assortments. Prior research has argued that the cognitive costs associated with choices from larger assortments are likely to be more salient when consumers shift their focus from the task of choosing an assortment to the task of choosing an item from the selected assortment. The results indicate that the assortment attractiveness effect reported in the first two studies is stronger when consumers are asked to justify their choice of an item from the selected assortment than when they are asked to justify their choice of an assortment.

In order to gain more insight into the decision processes underlying the observed effects, the fifth experiment examines respondents' information-search patterns. The results are consistent with the other experiments and show that the impact of assortment attractiveness on choice also extends to search behavior: participants were more attracted to larger rather than smaller assortments only when the attractiveness of the available assortments was low; when assortment attractiveness was high, the pattern of initial preferences was reversed in favor of smaller assortments.

This research demonstrates that choice among assortments is a function of the perceived attractiveness of these assortments, such that the relative preference for larger assortments is likely to decrease as the overall attractiveness of both assortments increases. In fact, the data show not only a decrease in the relative share of the larger assortment, but in some cases, also a preference reversal in which the choice share of the smaller assortment was actually greater than that of the larger assortment.

“Great Expectations?! Assortment Size, Expectations and Satisfaction”

Kristin Diehl, University of Southern California

Cait Poynor, University of South Carolina

A long line of research demonstrates that consumers value greater selection (e.g., McAlister and Pessemier 1982) and that they react negatively to restrictions imposed on their selection (e.g., Fitzsimons 2000). Recently, however, researchers have demonstrated that consumers can experience too much choice. This stream of research shows that larger selections decrease purchase likelihood (Iyengar and Lepper 2000) as well as decision confidence (Chernev 2003b) and proposes choice overload and heightened decision complexity as the underlying drivers.

We demonstrate an additional downside of larger assortments, lowering satisfaction with the chosen option, and establish the underlying mechanism causing this effect. We suggest that larger assortments raise consumers' expectations of the degree of preference match they can achieve. Higher expectations can lead to greater disconfirmation when searching an assortment, thus reducing satisfaction with the choice. Findings from three studies show that larger assortments can lead to lower satisfaction due to expectation-disconfirmation over and above the effects of information overload.

Study 1 used a principal-agent task where participants imagined choosing a birthday card for a male coworker (see Diehl, Kornish, and Lynch 2003). Participants imagined going to a store that featured a selection of either 25 or 250 birthday cards (between subjects). All participants then saw the same, single option, pretested to be perceived as a good option. Participants were told they had chosen this card and were asked to indicate their satisfaction with the card as well as the extent of expectation-disconfirmation they experienced. Replicating prior findings, participants were less satisfied with the target card when this card ostensibly came from the larger as opposed to the smaller assortment. Moreover, the larger assortment led to significantly greater negative disconfirmation than did the smaller assortment, and expectation-disconfirmation mediated the effect of assortment size on satisfaction.

Study 1 isolates our proposed mechanism from any choice overload effect since all participants only saw a single option. Study 2 replicates the mediating effect of expectation-disconfirmation in a real choice situation, where participants actually experienced different assortment sizes. Study 2 asked participants to search and choose computer wallpaper for themselves. Before searching the assortment, participants indicated one of six categories from which they expected to choose. Participants wrote a brief description of their imagined wallpaper and also sketched a picture. Assortment size was manipulated between-subjects as either small (60) or large (300 wallpapers), with 10 or 50 wallpapers per category. Participants saw a list of all options, grouped by categories and identified by category and a number. Clicking on an option brought up a small thumbnail of the wallpaper. Participants searched as long and in any order they wanted. After choosing an option, they viewed their choice full screen, rated their satisfaction with the choice, choice difficulty, and their degree of expectation-disconfirmation.

Contrary to prior work on choice overload, assortment size did not affect perceived choice difficulty, perhaps due to the visual nature of the stimuli. Still, we statistically control for choice difficulty. Replicating study 1, participants were less satisfied if they chose from the larger assortment. Further, larger assortments led to greater expectation-disconfirmation than did smaller assortments and expectation-disconfirmation mediated the effect of size on satisfaction. Study 3 further teases apart the overload mecha-