ASSOCIATION FOR CONSUMER RESEARCH

Labovitz School of Business & Economics, University of Minnesota Duluth, 11 E. Superior Street, Suite 210, Duluth, MN 55802

The Mere Categorization Effect: How the Presence of Categories Increases Choosers' Perceptions of Assortment Variety and Outcome Satisfaction

Cassie Mogilner, Stanford University, USA

Tamar Rudnick , Columbia University, USA

Sheena Iyengar , Columbia University, USA

What is the effect of option categorization on choosers' satisfaction? A combination of field and laboratory experiments reveals that the mere presence of categories, irrespective of their content, positively influences the satisfaction of choosers who are unfamiliar with the choice domain. This "mere categorization effect" is driven by a greater number of categories signaling greater variety among the available options, which allows for a sense of self-determination from choosing. This effect, however, is attenuated for choosers who are familiar with the choice domain, who do not rely on the presence of categories to perceive the variety available.

[to cite]:

Cassie Mogilner, Tamar Rudnick , and Sheena Iyengar (2009) ,"The Mere Categorization Effect: How the Presence of Categories Increases Choosers' Perceptions of Assortment Variety and Outcome Satisfaction", in NA - Advances in Consumer Research Volume 36, eds. Ann L. McGill and Sharon Shavitt, Duluth, MN : Association for Consumer Research, Pages: 172-176.

[url]:

http://www.acrwebsite.org/volumes/14267/volumes/v36/NA-36

SYMPOSIUM SUMMARY

The Psychological Consequences of Choice

Jinhee Choi, University of Chicago, USA

SESSION OVERVIEW

Choice has been a central topic in consumer research, and in recent years, choice researchers have been mainly investigating what people choose (i.e., preference) and how they choose (i.e., choice process) (e.g., Dhar 1997; Hsee et al. 1999; Payne, Bettman, and Johnson 1992; Shafir, Simonson, and Tversky 1993). To this day, however, there is still relatively little known about the psychological consequences of choice. For example, what are the affective residual consequences of choice? How does choice affect people's mental resources? And why are some choices experienced differently than others? The objective of this symposium is to bring together a group of researchers that study these questions. They will address the consequences of choice for consumers' affective experiences and mental resources. Specifically, the symposium includes papers on consumers' experiences of depletion, replenishment, satisfaction, and regret, as a result of making choice.

The first two papers will address choosers' general psychological experience after making a choice. The first paper by Vohs et al. demonstrates that making choices depletes self-regulatory resources and further suggests why this happens by showing the various conditions of choice. Specifically, these researchers find that making choices for the self (compared to choosing for others), making unenjoyable choices (compared to enjoyable choices), and making full choices (compared to only deliberating or only implementing choices) were more depleting.

The second paper by Choi and Fishbach identifies the conditions under which the process of making choices has replenishing (vs. depleting) effects. In contrast to broad range of research showing that making choices is hard and depleting, they demonstrate that choosing can even be replenishing when it is construed as an end rather than a means to get something. Specifically, when consumers make choice for its own sake without considering getting something, it is replenishing. In contrast, when consumers make choices to get something, it is depleting. Thus, this research suggests the positive consequence of choosing based on how it is construed.

Whereas the first two papers focus on choosers' general experience after making a choice, regardless of the chosen item, the following papers focus on choosers' experience of the selected option. The third paper by Iyengar et al. investigates the implications of choice for a chooser's experience of post-choice satisfaction. They demonstrate that merely providing a categorization of the options enhances chooser's satisfaction on the chosen item. For example, choosers were more satisfied with their selection of magazine or coffee when these products were divided into more (vs. less) categories, irrespective of the information contained in the category labels. They further show that this is driven by a sense that a greater number of categories signals greater variety among the available options, which allows for a sense of self-determination from choosing.

The final paper by Ratner et al. identifies the factors that cause choosers to regret their selections and how they react to this feeling afterwards. They show that consumers switch away from a dominant option to a dominated option in subsequent choice when they experience regret after choosing the dominant option. They further demonstrate that whether consumers' regret leads them to switch depends on how they think and make attributions about the previous options. Thus, they suggest a situation leading consumers to negative affective experience (e.g., regret), which further causes switching afterwards, moderated by their cognition (e.g., attribution).

Taken together, these papers explore the psychological consequences of making choices, including depletion, replenishment, satisfaction, and regret. These different lines of research provide diverse insights on the study of choice consequences yet maintain a coherent theme.

We believe that choice is central to consumer research and therefore, this symposium will be of great interest and appeal to a large number of audiences in consumer research, including those interested in emotion, motivation, information search and processing, and consumer satisfaction. All the papers are in advanced stages of completion (two are currently in press) and at least one author from each paper has agreed to present their paper if the symposium is accepted. As this symposium includes four talks, there will not be a long discussion but Fishbach will provide a brief summarizing discussion at the end. The talks will be kept brief to allow enough time for Q&A. We believe that the presentations on the psychological consequence of choice will elicit active discussion and idea generation for future research on choice.

References

Dhar, Ravi (1997), "Consumer Preference for a Non-Choice Option," *Journal of Consumer Research*, 24, 215-31.

Hsee, Christopher K, George F. Loewenstein, Sally Blount, and Max H. Bazerman (1999), "Preference Reversals between Joint and Separate Evaluation of Options: A Review and Theoretical Analysis," *Psychological Bulletin*, 125, 576-590.

Payne, John W., James R. Bettman, and Eric J. Johnson (1992), *The Adaptive Decision Maker*, New York: Cambridge University Press.

Shafir, Eldar, Itamar Simonson, and Amos Tversky (1993), "Reason-Based Choice," *Cognition*, 49, 11-36.

EXTENDED ABSTRACTS

"Why Do Choices Tax Self-Regulatory Resources? Three Tests of Candidates to Explain Decision Fatigue"

Kathleen D. Vohs, University of Minnesota, USA
Noelle Nelson, University of Minnesota, USA
Catherine Rawn, University of British Columbia, Canada

Although many studies now detail the deleterious effects of making many choices or having many options, few have investigated why the process of choice derails the self. The current research approached this question using the limited-resource model of self-regulation, which has been a fruitful context to study the taxing nature of making choices. The current research asked about three distinctive features of choice that may underlie the effect.

It is instructive to review previous findings on self-control deficits after making choices. A series of studies by Vohs and colleagues (Vohs et al. 2008) found that making choice led people to perform worse on a subsequent act of self-control, relative to conditions in which participants previously had not made choices. This research used multiple domains of decision making, including choices about products and courses for a university degree. The dependent measures of self-regulation included enduring painfully cold water and drinking a bad-tasting but healthy liquid. In all

studies, the pattern was clear: people who had made choices showed impaired self-control on a later task, relative to people who had not made choices.

Why would choice deplete the self's regulatory resources? We investigated three important aspects of the choice process in the current studies. Our model of how choice taxes the self was derived from Gollwitzer's (1996) Rubicon Model of decision making. Gollwitzer depicts choice as the move between two qualitatively different modes of thought: deliberate and implement. The first stage in a choice process is deliberation, in which options are analyzed and a rather even-handed evaluation of options occurs. The act of choosing, per se, comes when people select an option (or more than one) in a quasi-behavioral act that connects the self to the chosen option (Strack, Werth, and Deutch 2006). The second stage in the choice process is to implement the choice, which means to act upon the selected option. This stage is markedly different from the deliberate stage, insofar as it engenders a commitment to an option and a bolstering of positivity about the chosen option. Shifting from one mindset to a qualitatively different mindset ought to be taxing, given that the concept of a mindset entails a distinct orientation toward the world, manner of engaging with the world, and evaluations of incoming information due to differing standards.

The first study examined whether making choices for the self versus making choices for another differs in terms of the regulatory energy. Insofar as making choices ties the selected object to the self, making choices ought to be more taxing when it involves the self than when it is for another given that the tie between the object and selfhood is likely far weaker. Participants came to the lab and were assigned to a condition in which they made choices for the self, for a person with whom they were moderately acquainted (on a scale from 1-9, the closeness of the relationship with this person was a 5), or made no choices. Then participants completed math problems as a measure of self-control. In line with predictions about the specialness of the self in choice, participants who made choices for themselves performed worse than participants who made choices for a friend, which itself was equivalent to self-control after not making choices.

A second study tested whether making enjoyable choices was less taxing than making choices that were not enjoyable. We hypothesized that the pleasantness of the choosing process might reduce its deleterious effects. If depletion is caused by forcing oneself to do something, then a pleasant task would presumably be less depleting than an aversive one. There was also some reason to predict that choice quantity would interact with subjective enjoyment. The beneficial impact of enjoying the task will likely wane as time and exertion increases. Hence we predicted that people would be less depleted when they made only a few, enjoyable choices but that by the time they had made many choices, they would be depleted regardless of liking for the choice task. Participants who had made no choices performed the best on the subsequent act of self-control, and participants who had made many choices (12 minutes of choosing) performed the worst. In between were a group of participants who had made a moderate amount of choices (3 minutes), and in this group the effect of choices depended on enjoyability of the task. If participants enjoyed the choice task (in this case, using a gift registry), they were less depleted than if they did not enjoy the task. But again, when participants had made many choices, the effect of enjoying the task vanished.

A third experiment manipulated which part of the choice process participants completed Some participants engaged in only the deliberate aspect of choice, whereas others followed preselected instructions to implement an already-chosen option (this is akin to locating the right kind of peanut butter on a grocery list someone else wrote), whereas a third group performed the full choice process of deliberating and implementing. In line with our notion of switching mindsets, the full choice process of deliberating and implementing produced the most depletion; the other two conditions of only deliberating and only implementing were better at self-control and were equivalent to each other.

In sum, three tests of three candidates for why choice is depleting found that the self is integral to when choice is depleting; making enjoyable choices helps when making moderate amounts of choices but not when many choices are made; and that the full choice process is more taxing than either simply deliberating among options or implementing pre-selected options. This research helps move the field toward a fuller understanding of the nature of choice, by detailing when, for whom, and how choice harms self-regulation.

References

Gollwitzer, P. M. (1996). The volitional benefits of planning. In P. M. Gollwitzer & J. A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (pp. 287-312). New York: Guilford.

Strack, F., Werth, L., & Deutsch, R. (2006). Reflective and impulsive determinants of consumer behavior. Journal of Consumer Psychology, 16, 205-216.

Vohs, Kathleen D., Roy F. Baumeister, Brandon J. Schmeichel, Jean M. Twenge, Noelle M. Nelson and Dianne M. Tice (2008), "Making Choices Impairs Subsequent Self-Control: A Limited Resource Account of Decision Making, Self-Regulation, and Active Initiative," *Journal of Personality and Social Psychology,* 94 (5), 883-898.

"Choice as an End versus a Means"

Jinhee Choi, University of Chicago, USA
Ayelet Fishbach, University of Chicago, USA

Past research has distinguished the activities derived from two distinct motivators: An extrinsically motivating activity that serves other goals and hence construed as a means to achieve these goals, and an intrinsically motivating activity that does not serve other goals and hence construed as an end in itself (Shah and Kruglanski 2000). In this research, we apply this distinction to the activity of choosing and propose two different choice modes: the one that starts with an external need to which the choice is an instrumental means versus the one where the choice is its own end and it is experiential.

Based on research attesting that the same activity is experienced as effortful when it is extrinsically motivating and as enjoyable when it is intrinsically motivating (Higgins and Trope 1990), we propose that the activity of choosing is experienced differently depending on how it is framed. When choosing is construed as a means and thus instrumental, choosing is experienced as effortful and results in post-choice depletion. Conversely, when choosing is construed as an end in itself and thus experiential, it is experienced as enjoyable and results in post-choice replenishment. Thus, whereas choice research has traditionally considered the act of choosing as effortful and depleting (e.g., Baumeister et al. 2008; Dhar 1997; Luce, Bettman, and Payne 1997), choosing can also be enjoyable and replenishing if conducted for its own sake rather than conducted to get the selected item. We also propose that the subsequent interest in getting the selected item differs based on this mental framing. When choosing is instrumental and consumers experience depletion, they should express lower interest in getting their selected item than when choosing is experiential and they experience replenishment

Four studies explore these distinct consequences of choosing depending on whether it is instrumental or experiential. Study 1 ("chips choice") manipulated choosing as instrumental or experiential by directing participants to consider the next step of purchase or not. After tasting a number of chips, those who chose chips they like most (experiential choice) were more persistent in drinking healthy but bad-tasting beverage than those who chose chips they would like to buy (instrumental choice) or those who did not make any choice (control). Study 2 ("vacation choice") manipulated choosing by emphasizing the goal of choosing or not. We found that participants who chose a vacation package without a specific external reason (experiential choice) performed better in the subsequent cognitive task than those who chose a vacation package with an emphasized goal of vacationing (instrumental choice) or those who did not make any choice (control). We also found that those who made an experiential choice were more motivated to go on a selected vacation than those who made an instrumental choice. Study 3 ("book choice") framed choosing differently by leading participants to think about the goals of choosing or the means to choose. "Thinking about the goals" frames choosing as instrumental to achieve these goals, whereas "thinking about the means" frames choosing as experiential that can be achieved by these means. We found that participants who chose a fiction book under thinking about the means (experiential choice) were more motivated to engage in effortful activities after choosing than those who did not make any choice (control), whereas those who chose a book under thinking about the goals of choosing (instrumental choice) were less motivated to do effortful activities afterwards compared to those in control condition. We also found that those who made experiential choice were willing to pay more for the selected book than those who made instrumental choice. Finally, Study 4 ("flower choice") manipulated choosing by framing it as a need or want. We found that people who did flower shopping as what they want to do (experiential choice) felt more replenished than those who did not make any choice (control), whereas those who did flower shopping as what they need to do (instrumental choice) felt more depleted than those in control condition. We further found that those who made experiential choice were more motivated to purchase the selected flower than those who made instrumental choice.

Taken together, these studies provide convergent evidence that instrumental choice construed as a means makes people depleted and decreases the interest in getting the chosen option, whereas experiential choice construed as an end makes people replenished and increases the interest in the chosen option. It implies that the same choice activity has distinct consequences depending on how it is framed.

References

Shah, James Y. and Arie W. Kruglanski (2000), "The Structure and Substance of Intrinsic Motivation," in Carol Sansone and Judith M. Harackiewicz (Eds.) *Intrinsic and Extrinsic Motivation: The Search for Optimal Motivation and Performance* (pp. 106-30). San Diego: Academic Press.

Higgins, E. Tory and Yaacov Trope (1990), "Activity Engagement Theory: Implications of Multiply Identifiable Input for Intrinsic Motivation," in E. Tory Higgins and Richard M. Sorrentino (Eds.) *Handbook of Motivation and Cognition: Foundations of Social Behavior* (Vol. 2, pp. 229-64). New York: Guilford Press.

Baumeister, Roy F., Erin A. Sparks, Tyler F. Stillman, and Kathleen D. Vohs (2008), "Free Will in Consumer Behavior: Self-Control, Ego-Depletion, and Choice," *Journal of Consumer Psychology*, 18, 4-13

Dhar, Ravi (1997), "Consumer Preference for a Non-Choice Option," *Journal of Consumer Research*, 24, 215-31.

Luce, Mary Frances, James R. Bettman, and John W. Payne (1997), "Choice Processing in Emotionally Difficult Decisions," *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 23, 384-405.

"The Mere Categorization Effect: How the Presence of Categories Increases Choosers' Perceptions of Assortment Variety and Outcome Satisfaction"

Cassie Mogilner, Stanford University, USA
Tamar Rudnick, Columbia University, USA
Sheena Iyengar, Columbia University, USA

Imagine shoppers browsing the magazine rack of a supermarket. They study rows upon rows of glossy pages, colorful pictures, and splashy headlines. They wander the aisle among hundreds of publications grouped under different category headings. Picture the magazines on the rack: Under "Fashion" there is the ultra-thick issue of Vogue. Under "Current Events" there is a copy of Newsweek. Under "Music" there is the most recent Rolling Stone. Watch the shoppers pick magazines from a set of hundreds. Did the category labels—Fashion, Current Events, Music—influence the shoppers' choices? Did the very presence of categories affect their satisfaction with their magazine selections?

We sought answers to these questions by observing customers as they shopped the magazine aisles of a Northeastern supermarket chain. The 10 branches of the chain where we conducted our observations varied in the number of magazine options (331 to 664, M=575) and the number of magazine categories (18 to 26, M=23), which were unrelated (r(10)=-.26, NS). Although each of the store displays identified such categories as "Fashion & Beauty," "Health & Fitness," and "Entertainment," the retailer had flexibility in deciding whether to further categorize the display to include such categories as "Women's General Interest," "Sports," and "Music." We observed 391 shoppers as they exited the magazine aisle (50% women, ranging in age from 30 to 50 years old) and asked them to participate in a short survey. Shoppers reported on a 100-point scale their perceptions of the variety offered by the magazine selection and their levels of satisfaction with their shopping experience. The results showed that while the actual number of magazine options had little impact (?=.04, t=.66, NS), the number of categories used to partition the display positively influenced perceptions of variety (?=.18, t=3.44, p=.001), which in turn led to greater customer satisfaction (?=.49, t=11.00, p<.001).

Expanding on the observations from our exploratory field study, we conducted two experiments in the choice domains of magazines and gourmet coffee to more closely examine the relationship between the presence of categories and consumers' subjective experiences of choosing. In particular, the experiments examined the effect of mere categorization, in terms of the number and content of category labels, on chooser satisfaction. The findings show that the mere presence of a greater number of categories leads to increased chooser satisfaction, irrespective of the information contained in the category labels. This "mere categorization effect" occurs by increasing choosers' perceptions of variety, which increases their feelings of self-determination.

In experiment 1, participants were presented with a display of 144 magazines from which they were instructed to choose one. Holding the magazine options constant, the display was manipulated between subjects to either offer three broad categorizes (i.e, *Men's, Women's*, and *General Interest*) or 18 more specific categories (e.g., *Cooking, Auto,* and *Sports*). Although categorization did not influence participants who were familiar with their choice set, those participants who were unfamiliar with their choice set were

significantly more satisfied with their selected magazine when the display was divided into 18 categories than when the display was divided into three categories. This effect was driven by choosers' perceiving increased variety amongst the options when there were a greater number of categories.

In experiment 2, participants were presented with a menu of 50 gourmet coffee flavors from which they were instructed to choose one to taste. The coffee options were either uncategorized or divided into 10 categories with labels that were informative (e.g., "Complex," "Spicy," "Nutty,"), somewhat uninformative (e.g., "The Gathering," "Java Joe's," "Coffee Time"), or completely uninformative "Category A," "Category B," "Category C". The results showed that irrespective of the information contained in the category labels, categorization led to greater chooser satisfaction than no categorization, but only for those who were novice coffee drinkers. Mediation analyses showed that this "mere categorization effect" was driven by the sense of self-determination that choosers experience when choosing from an assortment that they perceive to offer variety.

Building on research on categorization (e.g., Schmitt and Zhang 1998), consumers' inferences from marketing communications (e.g., Carpenter, Glazer, and Nakamoto 1994), and self-determination (e.g., Ryan and Deci 2006), this research has clear implications for retailers and offers theoretical contributions to extant work on perceived variety (e.g., Broniarczyk, Hoyer, and McAlister 1998; Hoch, Bradlow, and Wansink 1999; Kahn and Wansink 2004) and assortment size (e.g., Chernev 2003; Iyengar and Lepper 2000).

References

Broniarczyk, Susan, Wayne Hoyer, and Leigh McAlister (1998), "Consumers' Perceptions of the Assortment Offered in a Grocery Category: The Impact of Item Reduction," *Journal of Marketing Research,* 35 (May), 166-76.

Carpenter, Gregory S., Rashi Glazer and Kent Nakamoto (1994), "Meaningful Brands from Meaningless Differentiation: The Dependence of Irrelevant Attributes," *Journal of Marketing Research,* 31 (August), 339-50.

Chernev, Alexander (2003), "When More is Less and Less Is More: The Role of Ideal Point Availability and Assortment in Consumer Choice," *Journal of Consumer Research,* 30 (September), 170-83.

Hoch, Stephen, Eric Bradlow, and Brian Wansink (1999), "The Variety of an Assortment," *Marketing Science,* 18 (4), 527-46.

Iyengar, Sheena S. and Mark R. Lepper (2000), "When Choice is Demotivating: Can One Desire Too Much of a Good Thing?" *Journal of Personality and Social Psychology*, 79, 995-1006.

Kahn, Barbara and Brian Wansink (2004), "The Influence of Assortment Structure on Perceived Variety and Consumption Quantities," *Journal of Consumer Research*, 30 (March), 519-33.

Ryan, Richard M. and Edward Deci (2006), "Self-Regulation and the Problem of Human Autonomy: Does Psychology Need Choice, Self-Determination, and Will?" *Journal of Personality,* 74 (December), 1557-85.

Schmitt, Bernd and Shi Zhang (1998), "Language and Structure and Categorization: A Study of Classifiers in Consumer Cognition, Judgment, and Choice," *Journal of Consumer Research,* 25 (September), 108-22.

"When Dominated Options are Chosen: The Interplay of Affect and Cognition in Repeated Risky Choice"

Rebecca Ratner, University of Maryland, USA
Kenneth Herbst, Wake Forest University, USA
Nathan Novemsky, Yale University, USA

Individuals often face repeated choices between the same risky options. For example, when choosing how to invest savings, there are classes of investments that offer different risk profiles that a single individual might choose among on many different occasions. We are interested in examining how the outcome from a previous choice influences subsequent choices in these situations. We focus on a choice where there is a dominant option in all rounds and examine when and why individuals will choose the dominated option following a disappointing outcome with the dominant option.

Previous research has examined switching behavior in this context and found that individuals experience regret following the negative resolution of uncertainty; and that this regret drives them to switch away from what they still believe is a dominant option (Ratner and Herbst 2005). Thus, emotional reactions seem to interfere with individuals' ability to make a rational choice (Shiv et al. 2005). We extend this prior research by trying to understand why individuals experience regret following the choice of a dominant option. Regret usually accompanies a sense that one should have taken a different course of action. In the present context, that means one wishes to have chosen a dominated option. Nevertheless, substantial regret does emerge in this situation. We also examine when individuals are prone to act on their feeling of regret and actually switch to a dominated option.

In all studies, we use a fixed paradigm following Ratner and Herbst (2005). In that general paradigm, all participants first choose between two risky options (e.g., stock brokers). The information given about the options is very simple and clearly points to one option as dominant over the other option: for example, participants are asked to choose between a broker with a past success rate of 54% vs. one with a past success rate of 43%. Therefore, although one option clearly dominates the other, even the dominant option includes a substantial chance of failure. Not surprisingly, almost all participants choose the dominant option on the initial choice occasion. They then receive feedback that the option they chose did not produce a positive outcome on this first occasion. Our studies focus on what participants think and feel about this outcome and how that impacts their choices on subsequent occasions.

In our first study, we find that if we do not provide information about how the foregone option fared, participants assume that it fared well. As a result, they feel regret about having chosen the dominant option despite believing that the chosen option has a better chance of success than the foregone option even after accounting for the results of the first round. This experienced regret led individuals in Study 1 to switch to the dominated option on the next occasion. In our next study, we find that although individuals feel regret whenever they believe their outcome was worse than the outcome of the foregone option, they do not always act on this regret by switching to the dominated option. That is, their affective response does not always produce a switch on the subsequent occasion. Whether their regret leads them to switch appears to depend in part on whether they expect that the unchosen option produced a qualitatively different outcome than the obtained outcome (e.g., that the foregone option would have produced an increase in the value of an investment whereas the chosen option resulted in a decrease in value).

To summarize, we examine a situation where individuals are taking substantial risks and choosing a dominant option. Neverthe-

less, they are experiencing regret following the negative resolution of the risk. These feelings are sufficient to cause individuals to choose what they believe is a dominated option in a subsequent choice. Our results also suggest situations in which experienced regret does not produce regret-driven switching behaviors. Together, the results suggest a complex interplay between affect (e.g., regret) and cognitions in situations in which consumers make repeated choices between options that do not guarantee successful outcomes.

References

Ratner, Rebecca K. and Kenneth C. Herbst (2005), "When Good Decisions Have Bad Outcomes: The Impact of Affect on Switching Behavior," *Organizational Behavior and Human Decision Processes*, *96*, 23–37.

Shiv, Baba, George Loewenstein, Antoine Bechara, Hanna Damasio, and Antonio R. Damasio (2005), "Investment Behavior and the Negative Side of Emotion," *Psychological Science*, 16, 435-39.