Consumption Decisions Involving Goal Tradeoffs: the Impact of One Choice on Another

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Little empirical research has studied how consumers make goal tradeoffs to determine an overall consumption experience. Results from an exploratory study revealed that anchoring and assimilation and contrast effects might be involved in the decision process of highlighting one goal or balancing conflicting goals in a consumption episode. Findings from two experiments indicate that need for cognition (NFC), level of tradeoff conflict, and decision target affect the decision-making processes, and hence consumers’ preferences for highlighting or balancing within consumption episodes.

INTRODUCTION
Much recent research has documented that consumers’ goals play an important role in choice (Bagozzi and Dholakia 1999; Huffman, Ratneshwar, and Mick 2000). Some have classified goals as hedonic (goals with a pleasure focus) and utilitarian (goals with a more functional focus). While research has discussed the interrelatedness of consumer goals and goal conflict (Gutman 1982; Luce, Payne, and Bettman 1999; Ratneshwar, Pechmann, and Shocker 1996), little empirical research has studied how consumers make goal tradeoffs. Dhar and Simonson (1999) is an exception; they examine goal tradeoffs in the context of consecutive choices, that is, choice in a consumption experience. They define a consumption episode as decisions regarding two or more choices that belong to the same event or occur in temporal proximity. For example, in the consumption episode of weekend activities, a consumer may choose between a workout in the gym or watching videos in the afternoon, and between going out to dinner or having dinner at home. Dhar and Simonson examine the tradeoff between two goals, i.e., a hedonic and a utilitarian goal, and find that consumers prefer balancing (i.e., fulfilling both goals) to highlighting (fulfilling only one goal at the expense of another).

Our research seeks to add to the literature on goals and consumption episodes in the context of goal tradeoffs, specifically between a utilitarian goal and a hedonic goal. We begin with an exploratory study to better understand consumers’ explanations for make highlighting or balancing decisions. We draw upon our exploratory study findings and the literature on anchoring and assimilation and contrast effects to identify factors that may moderate consumers’ balancing tendency in consumption episodes involving goal tradeoffs. We develop hypotheses regarding the effects of need for cognition, level of tradeoff conflict, and decision target (making decisions for one’s self versus for others) in the context of a consumption episode involving goal tradeoffs. We then report on two experiments conducted to test our hypotheses.

EXPLORATORY STUDY
Our exploratory study was designed to explore choices in a consumption episode; thirty-eight undergraduate students participated. They were given a decision scenario about an afternoon activity and dinner on that evening that involved the tradeoff between a goal to stay healthy (utilitarian) and a goal to have pleasure (hedonic) (Dhar and Simonson 1999). Specifically, participants were asked when they would order a tasty but fatty food dinner, either after a strenuous workout or after watching sports on TV. After reporting their decision, participants explained their reasons for making that particular choice.

Interestingly, a greater percentage of the participants made highlighting (60.5%) than balancing (31.6%) decisions; the remaining 7.9% reported no preference. A nonparametric χ² test showed that there were more highlighting than balancing choices (χ²(1)=3.46, p<.07). Participants who made highlighting decisions mentioned that they would prefer stay in the same mindset throughout the day, e.g., “in health conscious state of mind,” “in the healthy mindset and wants to keep that up,” “would continue to do so,” and “working out and healthy food goes together.” However, those who made balancing choices explained that they “might not feel guilty about eating” fatty food after a strenuous workout, “earned fatty food,” or “rewarded” themselves with a tasty (yet fatty) dinner. Participants’ explanations suggest that they used the first choice as a reference point or anchor when making a second choice within the consumption episode. A majority chose to highlight, whereas a minority chose to balance. Participants’ rationale suggests that they anchor on their first decision, and that in highlighting, assimilation effects occur, whereas in balancing, contrast effects occur. Hence, in the next section we examine goal tradeoffs in consumption episodes from the perspectives of anchoring, and assimilation and contrast processes.

DECISION-MAKING WITHIN CONSUMPTION EPISODES: ANCHORING AND ASSIMILATION AND CONTRAST EFFECTS

Anchoring
When making judgments or decisions, individuals may rely on some salient factors and form an “anchor” that serves as a starting point for decision-making (Hastie and Dawes 2001). Although most of the literature in anchoring has focused on the judgment of salient numbers, some recent research has studied how individuals anchor on their own experiences (Gilovich, Medvec, and Savitsky 2000) and how the anchoring effect influences choices (Brewer 2003). Given participants’ explanations reported in the exploratory study of consumption episodes involving two choices, one could argue that a consumer’s mental representation of the first choice serves as an anchor for making a second choice. Hence, a consumer who is in the mindset of fulfilling one goal may make a second choice fulfilling the same goal. For example, after a strenuous workout in the gym, a consumer may anchor on the goal of “staying healthy” and make subsequent choices (e.g., choosing healthy but less tasty dishes as a subsequent meal) based on this starting point, which results in a highlighting decision. However, if that consumer makes adjustment from his mindset of the first choice, he may try to achieve a different goal within an episode, which results in a balancing choice pattern, i.e., achieving both goals.

Assimilation and Contrast Effects
As found in the exploratory study, participants not only used the first choice as a reference point or anchor, they also assimilated or contrasted choice alternatives. Assimilation-contrast theory is based on the perspective that the perception of objects involves categorizing these objects relative to individuals’ prior attitudes. Assimilation effects emerge when the object under judgment is assigned to the same category as the judgment context. As a result, the object will be more likely to be accepted. Alternatively, contrast effects emerge when the object and the context are assigned to
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different categories, hence the object will be less likely to be accepted (Schwarz and Bless 1992).

The findings from our exploratory study lend support to assimilation and contrast effects occurring as consumers make consecutive consumption choices. Our discussion of assimilation effects suggests that an individual who sees choice alternatives fulfilling the same goal as belonging to the same category is more likely to engage in an assimilation process and continue with that goal, i.e., a highlighting decision. For example, one of the participants in our exploratory study who made a highlighting decision mentioned that “working out and healthy food goes together.” Alternatively, an individual who treats choice alternatives fulfilling different goals as in different categories is more likely to engage in a more cognitively demanding contrasting process, and determines that he wants to fulfill both goals, which leads to a balancing decision. Most participants who made balancing decisions in our exploratory study reported that they already “burned enough calories” in the workout so that they could “have a treat” at dinner.

Need For Cognition and Level of Tradeoff Conflict

Consumer research has demonstrated that the assimilation effect occurs more spontaneously, whereas the contrast effect requires more cognitive resources (Meyers-Levy and Sternthal 1993; Meyers-Levy and Tybout 1997). These studies suggest that consumers expending higher levels of cognitive resources are more likely to engage in the contrast process. In this section, we identify two variables that are related to the extent of processing, an individual’s need for cognition (NFC) and the level of tradeoff conflict in the decision, and develop hypotheses regarding their effects on decision-making within consumption episodes involving goal tradeoffs.

NFC is defined as an individual’s tendency to engage in and enjoy thinking (Cacioppo and Petty 1982). Consumers with a high NFC tend to put more cognitive resources in the decision-making process. Thus, based on the literature linking contrast effects with increased cognitive processing (Meyers-Levy and Sternthal 1993; Meyers-Levy and Tybout 1997), we argue that high NFC consumers are more likely to engage in the contrast processing, which will result in balancing decisions.

When consumers are faced with difficult and conflicting decisions, they tend to avoid tradeoffs, because these tradeoffs require more cognitive effort and usually result in negative emotion (Luce, Payne, and Bettman 1999). In our study, we consider level of tradeoff conflict as the degree of the discrepancy between the goals fulfilled by the choice alternatives in a decision. A high level of tradeoff conflict involves making a choice between two extreme choice alternatives (e.g., extremely hedonic versus extremely utilitarian), whereas a low level of conflict involves making a choice between two relatively close choice alternatives (e.g., moderate hedonic versus moderate utilitarian). In the context of a consumption episode in which a consumer is faced with choice alternatives fulfilling two more similar goals (as compared to two very disparate goals), we would anticipate increased cognitive processing, and hence a balancing choice. In contrast, a consumer who is making choices between alternatives fulfilling two very disparate goals is expected to highlight, i.e., stay with the status quo created by the first choice.

Given that NFC is an individual difference variable and level of tradeoff conflict is a context or situational variable, we consider how the interaction of these two variables might impact highlighting and balancing within a consumption episode. As stated above, we propose that high NFC consumers and consumers facing low levels of tradeoff conflict are more likely to balance their consumption episode decisions. Given that consumers tend to avoid difficult tradeoffs (Luce, Payne, and Bettman 1999), and that making tradeoffs requires cognitive effort and high NFC consumers are more willing to expend such effort (Cacioppo and Petty 1982), we expect that high NFC consumers facing low tradeoff conflict decisions will tend to engage in more cognitive processing and have the highest propensity to contrast, make tradeoffs, and balance. In contrast, we would anticipate that consumers with high NFC facing highly conflicting tradeoffs, as well as those with low NFC would be less likely to balance. Thus, we expect:

H1: Within consumption episodes involving goal tradeoffs, consumers with high NFC facing a low level of tradeoff conflict are more likely to make balancing decisions than those with either high NFC facing high level of tradeoff conflict or those with low NFC.

EXPERIMENT 1

Procedure

A total of 90 undergraduate students participated in experiment 1 for course credit. The experiment occurred in two separate sessions. During the first session, participants’ NFC was measured. A second session, which occurred about a month later, investigated how consumers make decisions within consumption episodes; participants were randomly assigned to our 2 (level of tradeoff conflict: high versus low) x 2 (order of choice presentation: utilitarian/hedonic versus hedonic/utilitarian) between subject design. No participants from the exploratory study participated in experiment 1.

In the second session, participants were given a hypothetical decision scenario which involved the tradeoff between a study (utilitarian) goal and a pleasure (hedonic) goal (see Appendix which presents the high tradeoff conflict scenario). Level of tradeoff conflict (high versus low) was manipulated by varying the discrepancy between the goals filled by the two choice alternatives. The high conflict scenario involved a large discrepancy between the goals (i.e., “do some challenging homework” versus “hangout with friends”). In the low conflict level scenario, there was less of a discrepancy between the goals (i.e., “do some simple homework” versus “relax in your room”). After reading the scenario, participants were asked to arrange the two afternoon and two evening activities for two different days. Order of choice presentation was manipulated to determine if presenting the utilitarian versus hedonic goal first in the scenario affected the results. Specifically, Order 1 presented the utilitarian goal first and the hedonic goal second, whereas Order 2 presented the hedonic goal first and the utilitarian goal second. Participants’ decisions were coded as highlighting, balancing, or showing no preference.

NFC was measured by 18-item 9-point scale (Cacioppo, Petty, and Kao 1984), with “4+” representing “high NFC” and “4-” representing “low NFC.” Cronbach’s alpha for the scale was .90. The summed score for NFC was median split to distinguish “high NFC individuals” (M=19.1) from “low NFC individuals” (M=12.12) (t(88)=-11.45, p<.001).

Results

Approximately half (50.8%) of the participants made highlighting choices, whereas 38% made balancing choices; the remaining 11.2% indicated no preference between highlighting and balancing. Considering only those who made a choice, a nonparametric χ² test showed that there were more highlighting choices (57.2%) than balancing choices (42.8%) (χ²(1)=3.47, p<.07).

In preparation for examining H1, we first included order of choice presentation and gender into the binary logistic regression
model with the decision of highlighting or balancing as the dependent variable (i.e., those who had no preference were not included in the analysis), and neither was significant (Wald_{order} = 14, df = 1, p > .7; Wald_{gender} = 1.03, df = 1, p > .3). Therefore, they were not included in further analysis. The binary logistic regression revealed that the interaction of NFC and level of tradeoff conflict was significant (Wald_{interaction} = 5.62, df = 1, p < .05), which supported H1. Further analysis revealed that participants who had high NFC and were in the low tradeoff conflict condition had a higher propensity to balance, i.e., 57.9% of them chose to balance, than either those who had high NFC and were in the high tradeoff conflict condition (21.2%) or those with low NFC (41%).

Our exploratory study indicated that consumers tend to anchor on their first choice when making a second choice within that consumption experience. Experiment 1 results indicate that when participants enjoyed thinking (high NFC) and were willing to make tradeoffs (a low level of tradeoff conflict), they were more likely to make balancing decisions, i.e., desire to accomplish both goals. Otherwise, they were more likely to anchor and assimilate, thus resulting in highlighting decisions. In Experiment 1, we used a median split to designate high versus low NFC consumers. Although the means of the two groups are significantly different, the two groups may not be exactly capturing high and low NFC. Rather, they might be representing moderate high versus moderate low NFC. Therefore, the actual effect of NFC on highlighting/balancing choice might be even stronger than reported in the experiment.

**EXPERIMENT 2**

In experiment 2, we consider the possibility that the decision target, i.e., making a decision for one’s self versus making a decision for others, may affect consumers’ choices within a consumption episode. For example, consumers are often in the situation of needing to purchase or make purchase recommendations for others, including those with whom they are familiar (e.g., significant other) and those whom they do not know well or do not know their exact preferences (e.g., a new neighbor). When individuals choose for themselves, they apply their own preferences. However, when individuals give advice, they apply their assumptions about others’ preferences (Kray 2000). Likewise, West (1996) proposes that a purchase agent makes recommendations to the target by making adjustment from his own opinions based on the perceived difference between himself and the target. Slovic (1975) argues that an advisor may be more concerned about recommending a course of action that is easier to justify than making a decision in the best interest of the advisee. Prentice (1990) suggests that feelings are less involved in the mental representation of others than self, and that an individual’s mental representations of others are different due to the degree of familiarity, such that mental representations related with familiar others are much closer to self than to unfamiliar others (Aron, et al. 1991). Given that individuals treat familiar others more like themselves than unfamiliar others, the current research examines the differences in the decision-making for one’s self versus unfamiliar others someone whose preferences are not known.

Our exploratory study and experiment 1 indicate that the majority of participants when making decisions for themselves tend to anchor on their first choice and consequently highlight during a consumption episode. In the context of multiple goal decision-making within consumption episodes, when making decisions for others, we argue that individuals may be mindful of accomplishing multiple goals, particularly with regard to unfamiliar others for whom they do not know their preferences. Hence, we anticipate:

**H2:** Within consumption episodes involving goal tradeoffs, consumers are more likely to make balancing (versus highlighting) decisions when they make choices for unfamiliar others (versus for themselves).

**Method**

A total of 134 undergraduate students participated in experiment 2 for course credit (none of them had participated in either the exploratory study or experiment 1). Participants were randomly assigned to a 2 (decision target: self versus other) × 2 (order of choice presentation: utilitarian/hedonic versus hedonic/utilitarian) between subject design.

Participants were given a hypothetical decision scenario regarding leisure and dining activities in which the decision target was manipulated by asking the participants to make the decision for themselves or for “college student A,” representative of someone unfamiliar to the participant (Kray 2000). As in experiment 1, order of choice presentation was manipulated to determine if presenting the utilitarian versus hedonic choice first in the scenario affected the results. The scenario used in this experiment presented participants with a first choice, either the utilitarian (i.e., thorough workout in
the gym) or hedonic (i.e., watch sports games on television or movie videos) after they were asked whether they would choose from either “fairly tasty but somewhat high-fat dishes” or “healthy but less tasty dishes” for their dinner (see Appendix which presents the self decision target scenario). Participants’ decisions were coded as highlighting, balancing, or showing no preference. The level of tradeoff conflict in experiment 2 was kept at a low level.

Finally, participants responded to a five-item 9-point scale (Desai and Ratneshwar 2003) designed to assess degree of health orientation; Cronbach’s alpha for the scale was .83. Health orientation was included as a covariate in the analysis.

**Results**

Slightly over one-third (37.3%) of the participants made highlighting choices, 33.6% made balancing choices, and 29.1% showed no preference between highlighting and balancing. When considering only those who made a choice, a nonparametric $\chi^2$ test showed that the difference between the percentage of highlighting choices (52.6) and balancing choices (47.4%) was not statistically significant ($\chi^2(1)=.26$, $p>.1$).

In preparation for examining H2, we first included health orientation, order of choice presentation, and gender into the binary logistic regression model with the decision of highlighting or balancing as the dependent variable (i.e., those who had no preferences were not included in the analysis). None of them was significant ($\text{Wald}_{\text{health}}=1.06$, $df=1$, $p>.3$; $\text{Wald}_{\text{order}}=1.67$, $df=1$, $p>.1$; $\text{Wald}_{\text{gender}}=.66$, $df=1$, $p>.4$). Therefore, they were not included in further analysis. The binary logistic regression revealed that decision target significantly affected choice ($\text{Wald}_{\text{target}}=9.31$, $df=1$, $p<.01$). The coefficients indicated that participants were more likely to make balancing decisions when they were making decisions for unfamiliar others than for themselves (odds ratio=3.94).

We found that of those choosing between highlighting and balancing (i.e., exclude those with no preferences), 60.7% of the participants making decisions for unfamiliar others chose to balance, whereas only 28.2% of those making decisions for themselves chose to balance. These results provide support for H2.

**GENERAL DISCUSSION**

Our research contributes to the literature on goals and consumption by examining how consumers make goal tradeoffs within consumption episodes. Our exploratory work suggested that anchoring and assimilation and contrast effects are prevalent as consumers make multiple choices. We have drawn upon the anchoring and assimilation and contrast effects literature base to consider underlying processes operating as consumers make decisions involving goal tradeoffs during consumption episodes. Further, we have considered how goal tradeoffs might be affected by the individual difference variable of need for cognition, as well as level of goal conflict and for whom the consumption decision is being made (i.e., for one’s self or for someone whose preferences are not known).

In both experiments, we considered goal tradeoffs (hedonic vs. utilitarian) in consumption choices relevant to undergraduate students, our study participants. The goals we included in our experiments would be considered as lower level goals (Huffman, Ratneshwar, and Mick 2000), and we found across experiments 1 and 2 that order of goal presentation (utilitarian/hedonic versus hedonic/utilitarian) did not affect whether participants chose to highlight or balance. In other words, our findings suggest that whether the anchor is a utilitarian or hedonic goal does not affect whether participants continue with the initial goal or attempt to accomplish multiple goals. This finding is interesting in that it suggests that even those whose consumption episodes begin with a more fun-fulfilling goal may switch gears to fulfill a more functional or utilitarian goal. Recent research has given more attention to emotional influences on goal setting (Bagozzi et al. 2000; Luce, Payne, and Bettman 1999), thus one might speculate that higher order goals may be more emotionally bound, and thus result in different highlighting and balancing patterns than those of lower level goals studied herein.

In experiment 1, we examined the tradeoffs related to studying (a utilitarian goal) and having fun (a hedonic goal), and in general, we found a greater percentage of participants highlighting their decisions, that is staying with the anchor of either a hedonic or utilitarian goal. However, these results are qualified by participants’ need for cognition (NFC) and the level of goal conflict that they faced. Specifically and consistent with our expectations, we found that individuals with high NFC facing low tradeoff conflict had the highest propensity to achieve both goals (i.e., they made a balancing decision). Other participants (those with low NFC and those with high NFC but faced with high tradeoff conflict) reported a greater propensity to highlight, i.e., stay with their initial goal, regardless of whether the first goal was utilitarian or hedonic.
In experiment 2, we examined the tradeoffs related to an afternoon activity (exercise—a utilitarian goal versus watching television—a hedonic goal) and dinner choices (choosing between a fairly tasty but somewhat high-fat dish—a hedonic goal versus a healthy but less tasty dish—a utilitarian goal), and found participants to be equally likely to highlight and balance their choices. These results, however, are qualified by for whom the decision is made. Specifically and consistent with our expectations, participants making choices for someone whose preferences they did not know were more likely to balance, i.e., accomplish both goals, rather than focusing on one—either hedonic or utilitarian goal. In contrast, participants making choices for themselves were more likely to highlight. While some research has argued that goal salience influences individuals’ decision to highlight or balance, i.e., an individual will choose to highlight only one goal if that goal is much more important than the other (Dhar and Simonson 1999), we did not find that participants’ health orientation affected their choice to highlight or balance.

Our findings coupled with those of Dhar and Simonson (1999) yield conflicting results with regard to consumers’ consumption episode choices. As we have noted experiment 1 resulted in a majority of participants highlighting, our experiment 2 yielded equal percentages of highlighting and balancing, and Dhar and Simonson consistently report greater percentages of balancing decisions. What is the explanation for the contrasting findings? Our results indicate that consumers’ balancing and highlighting decisions are susceptible to individual difference variables (e.g., need for cognition) as well as contextual variables (e.g., level of goal tradeoff and decision target). Hence, more exogenous variables that may alter consumers’ highlighting or balancing tendency need to be carefully studied. Additionally, as we noted earlier, it may be that lower level versus higher level goal conflict may affect whether consumers balance and highlight within consumption episodes. Further, consumers’ general ability and motivation to avoid goal conflict may impact their choice processes (Huffman, Ratneshwar, and Mick 2000). Given the early stage of research on goal tradeoffs within consumption decisions, it is evident that additional research is needed to more completely understand the boundary conditions under which consumers are more likely to balance and highlight goals within consumption episodes.

**LIMITATIONS AND FUTURE RESEARCH DIRECTIONS**

Our research extends the literature on goals and consumption episodes, yet several limitations should be noted and addressed in future research. First, consistent with past research, we defined the consumption episode to include two decision choices. Future research is needed to investigate the nature of consumption episodes and the number of choices that consumers consider in these episodes. Further understanding of consumption episodes can then be tested with different types of choices, and likely more complicated decision scenarios. Second, our study primarily focuses on the individual as the decision maker. Further investigation is needed to consider other social influencing factors, such as group dynamics. Many individual decisions take place in a group context wherein group members’ choices influence individuals’ decisions. Additional research may study the group dynamics and consider group member’s influence on individual’s decision of highlighting or balancing. Finally, our experiments did not assess for individual’s involvement with the two hypothetical decision scenarios. Hence, future research may consider studying the influence of involvement on consumers’ choice of highlighting or balancing in consumption episodes.
APPENDIX
Decision Scenarios

Experiment 1–High Goal Tradeoff Scenario
Assume that you need to plan your activities for two different days during an upcoming week. During these two days, you plan to work on two school-related assignments, and also to take some time out and have fun. You know that on one of those two days, in the afternoon, you need to meet with your group members to discuss a difficult group project for one of your classes. On the afternoon of the other day, you will join your friends to watch a new movie. You also need to decide what to do in the evenings on those two days. On one evening, you need to work on some homework that is very challenging. On the other evening, you plan to hang out with your friends.

Experiment 2–Self Decision Target Scenario
Assume that you are planning your leisure activities at weekends. Also assume that every weekend you are likely to engage in activities that range from pure fun (such as watching sports on TV or movie videos) to a strenuous workout (such as running five miles). In terms of food, you like to eat dishes that range from tasty but containing some fat to those that are healthy but not as good taste.

Consider your two upcoming weekends. On one weekend, you plan to have a thorough workout at the gym before dinner. On the other weekend, you plan to watch sports games on television or movie videos before dinner. Suppose there are only two categories of food for you to choose from. One is fairly tasty but somewhat high-fat dishes, such as fried fish, roast chicken, or beef fajitas. The other is healthy but less tasty dishes, such as light pasta dishes or vegetarian meals.