

The Emergency Reserve: The Effects of Slack on Self-control Performance

Marissa Sharif^a and Suzanne Shu^b

University of California, Los Angeles

- a. Anderson School of Management, University of California Los Angeles, Los Angeles, CA
90095-1481, USA
marissa.sharif.2016@anderson.ucla.edu
- b. Anderson School of Management, University of California Los Angeles, Los Angeles, CA
90095-1481, USA
suzanne.shu@anderson.ucla.edu

Corresponding author: M. Sharif
UCLA Anderson School of Management
110 Westwood Plaza
Los Angeles, CA 90095-1481
Phone: 909-996-7963
marissa.sharif.2016@anderson.ucla.edu

Abstract

Prior research has shown that flexibility within mental budgets allows consumers to make exceptions to budget rules in order to justify indulgent choices. However, other research has suggested that too stringent of mental budgets can lead to self-control failure through self-control depletion and the “what-the-hell” effect. We propose that including slack, defined as a region of constrained flexibility with rigid boundaries beyond an initial limitation, in mental budgets will help improve self-control performance by providing a compromise between these two extremes. In a hypothetical point-based weight loss program, we found that participants with slack and standard mental budgets chose significantly healthier options and thus used fewer total points compared to those who did not have slack. However, participants with slack and deprived mental budgets used directionally more points than those without slack. These effects were found to be specific to slack compared to other types of flexibility. The implications of these findings and suggestions for future research are also discussed.

Keywords: slack, mental budget, self-control, scarcity, diet

The Emergency Reserve: The Effects of Slack on Self-control Performance

People are continuously trying to control themselves from over-indulging. Many people use mental budgets, self-set allowances or rules for a particular behavior, in order to help monitor their behavior. However, just as often as people create rules for themselves, they find themselves abandoning these rules and even the goal itself. This is evident in people's seemingly never-ending attempt to diet. For example, about twenty percent of adults are on a diet and almost sixty percent of adults want to lose at least twenty pounds (Hellmich, 2013), but as many as ninety-five percent of people who succeed in losing weight gain most or even more of it back (Brody, 1991). Why is there such a large failure rate for dieting if so many people have such a strong desire to lose weight? More generally, why do people fail to follow through with their pre-commitments involving self-control and is there anything we can do to help them be more successful? This paper speculates on answers to these questions and suggests one possible strategy to help improve self-control performance.

One potential reason for self-control failures in mental budgets is that people continuously make "exceptions" from their rules based on a seemingly justifiable excuse at the time. "Lapses will occur through loop-holes, variously clever and inept, rather than through a global shift of preference in favor of the forbidden activity" – (Ainslie, 1992). Previous research has shown that individuals will exploit flexibility in mental accounts to justify indulging (Cheema & Soman, 2006). However, strict mental budgets without any room for flexibility may be an unrealistic and even destructive solution. Muraven & Baumeister (2000) suggest that continuous attempts to resist temptation can also lead to a self-control failure. What is the compromise between too flexible of mental budgets and too strict of mental budgets?

In this paper, we propose that including “slack” within mental budgets will improve self-control performance by providing the appropriate balance between flexibility and stringency. The term slack has been used in previous research with a variety of different meanings (Shah, Mullainathan, & Shafir, 2012; Stille, Inman, & Wakefield, 2010; Zauberma & Lynch, 2004). For the purposes of this paper, we define slack as a region of constrained flexibility with rigid boundaries beyond an initial limitation. Weight Watchers, a popular point-based weight loss program, has implemented the concepts of mental budgets and slack into their program. Dieters are assigned to a total number of points per day based on their weight and also receive an additional set of “optional” points per week. These optional points are available in case participants need to give into temptation just a little without completely abandoning their goal. Such optional points can be considered a type of loophole or slack that grants participants a sense of flexibility.

We will be investigating the influence of slack on self-control performance throughout this paper. We report the results of a study that examines the influence of slack in the dieting domain by using an experimental paradigm modified off of the structure of Weight Watchers. Our study finds that participants with slack use a lower total number of points in a hypothetical point-based weight loss program compared to those without slack when they have a standard mental budget. However, participants use directionally more total points when they have slack compared to those who do not when they have a deprived mental budget.

Theoretical Background

Self-Control and Mental Budgets

Often, long-term and short-term goals do not align (Wertenbroch, 1998). Although

people want to lose weight in the long run, they also want that tasty chocolate cake in front of them now. As people have been shown to be myopic (Hoch & Loewenstein, 1991; Kirby, 1997; O'Donoghue & Rabin, 1999; Strotz, 1955), these short-term indulgent goals often dominate over the long-term virtuous goals, leading to self-control failure.

In order to help deal with this conflict between indulgent and virtuous goals, self-control devices can force individuals to incur a psychological cost for breaking rules associated with a self-control goal (Shefrin & Thaler, 1988). Mental budgets have been shown to be one such effective self-control device (Thaler, 1985, 2004). People can better track their behavior and resist indulgent options by defining self-set allowances for particular behaviors ahead of time (Heath, 1995; Krishnamurthy & Prokopec, 2010; Thaler, 1985, 2004). For example, people can commit themselves to consume 1500 calories per day or restrict themselves to only spend twenty dollars on eating out. By having a numerical representation of their goal, mental budgets provide consumers with a reference point to base their decisions off of (Heath, Larrick, & Wu, 1999) and thus make indulgent choices more psychologically costly.

Flexibility in Mental Budgets

In addition to allowing consumers to easily monitor their behavior, self-control devices also need to have clearly defined rules in order to be the most effective (Baumeister, 2002; Carver & Scheier, 1981, 2001) Ainslie (2001) claims that individuals will re-draw their mental budgets and claim exceptions to their personal rules when they are choosing between small, early rewards and larger, later ones. Cheema & Soman (2006) also suggest that individuals may “redefine” their mental accounts in order to justify a decision and may even purposely construct their mental accounts with room for loopholes. They demonstrate how consumers can exploit

ambiguity in their mental accounting rules in order to justify indulging in temptations. For example, people are more likely to incur a cost that is ambiguous (a dinner out with friends and live entertainment) than a cost that is unambiguous (live entertainment) when they have a constrained budget for entertainment. They will thus classify the outing as an expense under their budget for food rather than the depleted budget for entertainment. In order to avoid making deviances from our rules, Ainslie (2001) recommends finding “bright lines.” He defines bright lines as “lines that can only be crossed or not, rather than conveniently exchanged for other lines that are conveniently situated for the moment’s purpose.” In this paper, we will be exploring the effect of making loopholes “brighter” and thus having stricter harder defined boundaries on self-control performance.

Stringency in Mental Budgets

While prior research has revealed the negative outcomes of flexibility on self-control performance, people who restrict themselves too much and never allow themselves to indulge might completely abandon their goal as well. Muraven & Baumeister (2000) suggest that self-control might be a limited resource. Resisting a temptation makes further attempts at regulating one’s behavior more likely to fail, known as self-control depletion. Additionally, if an individual does fail at a behavior requiring self-control, previous research has suggested this can lead to a complete abandonment of the goal, known as the “what-the-hell” effect (Cochran & Tesser, 1996). By having slack available, self-control depletion may be reduced and thus decrease the tendency to indulge to the point of completely abandoning a self-control goal.

Previous literature has also suggested that altering people’s cognitive representation of the failure rather than the failure itself may allow them to avoid complete abandonment of a goal.

For example, individuals with high self-control spent more when they had outstanding credit card debt, perceiving the debt as a representation of failure. However, if the available credit on the credit card was increased, then this effect was eliminated (Wilcox, Block, & Eisenstein, 2011). The increase in available credit was shown to reduce the perceived sense of failure and thus inhibit the “what-the-hell” effect. Therefore, slack might help regulate self-control behavior by allowing individuals to redefine potential failures, inhibiting the “what-the-hell” effect.

Deprived Mental Budgets

While slack may be generally helpful in providing a pre-defined amount of limited flexibility, its effects may be moderated by how high or low an individual sets their mental budget. With fewer resources (e.g. money), the problems (e.g. this month’s rent) for people in impoverished states feel bigger, capture more attention, and result in greater engagement to solve them. Because of the greater focus on these local problems (e.g. this month’s rent), they neglect other problems (e.g. next month’s rent). Therefore, scarcity often results in suboptimal decisions without considering the future, such as borrowing without considering whether the benefits outweigh the consequences (Mullainathan, 2012; Shah et al., 2012). As a result of this different focus, slack could have a different effect on self-control behavior in “poor” states.

Additionally, participants who have low mental budgets may not be affected by slack’s inhibitory effect on self-control depletion and the “what-the-hell” effect. Slack may not be enough to allow them to experience even a constrained amount of indulgence because their initial budget is so low. The “what-the-hell” effect may also be exaggerated if they fail twice to stay within both the initial budget and the slack budget, while those without slack fail only once to stay within their initial budget.

To summarize, flexibility of rules in mental budgets can lead to justifying indulgent choices, suggesting that flexibility can be detrimental to self-control. However, stringent rules can also hurt self-control performance if they lead to self-control depletion and the “what-the-hell” effect, resulting in abandonment of self-control goals. Slack could provide a potential compromise between these extremes and improve self-control performance for standard mental budgets, but perhaps not for deprived budgets.

Study: Effects of Slack on Food Choices

To test whether slack can provide an appropriate balance between flexibility and constraint to improve performance in a self-control task, we ran an experiment in which individuals were asked to exert control over a series of hypothetical food choices. In addition to testing the impact of slack compared to other types of mental budget flexibility, we check for the proposed moderating effect of standard versus deprived mental budgets.

Method

Participants imagined that they were part of a point-based weight loss program and made a series of 28 choices between different food options over two virtual weeks. We manipulated the reference point for the mental budget (deprived vs. standard) and the level of flexibility of the program (no slack vs. slack vs. constrained aim). We expected that participants with a standard mental budget would chose healthier options and thus use fewer total points if they had slack available compared to those that did not.

Participants and Design

A total of 195 paid participants from Amazon Mechanical Turk participated in this

study. Participants were randomly assigned to one of seven conditions in a two (mental budget: deprived vs. standard) x three (level of flexibility: no slack vs. slack vs. constrained aim) + one control (no mental budget and no strategy of program) design.

Procedure

Participants were told to imagine that they were part of a point-based weight loss program. After entering their size, age, and gender, they were given a fictional number of points that the average person of their characteristics consumes in a week in order to lose weight. This number was meant to serve as a reference point off which participants could base their mental budgets. This reference point was manipulated to be either a standard (33) or deprived (20) total number of points.

Participants were informed that all of their choices would range from one point to five points, with lower points being assigned to healthy foods (e.g., salad) and higher points being assigned to unhealthy foods (e.g., bacon cheeseburger). Participants were then asked to estimate how many points they would use throughout one virtual week. These estimations were intended to serve as participants' mental budgets. In the no slack conditions participants only made this single point estimate of how many points they would use in a week. In the slack condition, participants were given lower reference points (17/30 points) and also asked to set aside additional points in case of an "emergency" after their initial estimation.¹ In the constrained aim condition, participants were given the normal (standard/ deprived) reference points and asked to set a lower number of points to aim for after their initial estimation.

¹ Slack participants were informed prior that the average person with their characteristics sets aside 3 point on average in case of emergencies.

To see how participants in the slack and aim conditions differed, consider two hypothetical individuals who generate similar estimates using the standard reference point as their starting anchor. Our hypothetical slack condition participant sees a reference point of 30, uses this as the weekly estimate, and then generates an emergency slack budget of 3 points, for an overall upper limit of 33. On the other hand, our hypothetical aim condition participant sees a reference point of 33, uses this as the weekly estimate, and then generates a lower aim estimate of 30. Both participants thus have the goal of trying to stay within 30 points with flexibility for 3 additional points, but the slack participant mentally codes the extra three points as emergency use only. Thus, the constrained aim condition allows us to examine the influence overall of a lower reference point with flexibility while the slack condition allows us to specifically explore the additional component of the harder boundaries of flexibility on self-control performance.

Participants in the control condition did not receive information about the average points used by a person of their characteristics and were not asked any estimation questions. All participants were told to make choices as they would in real life by assessing the temptations of each food in addition to the points assigned to them. Participants proceeded to make 14 choices throughout a virtual week with two choices per day (one meal for brunch and one meal for dinner). Each choice had five options, from one to five points. Each option had a picture representing the food and the corresponding points underneath. At the end of the first virtual week, participants answered the same questions regarding estimation of points (dependent upon condition) for the second virtual week and proceeded to make another 14 choices. After a five minute filler task, participants completed the Brief Self-control Measure (Tangney, Baumeister, & Boone, 2004) and other demographic measures. The total number of points that participants used in Week One and Week Two were our primary dependent measures. A lower number of

total points would imply that participants chose healthier options relative to those who consumed a higher number of total points.

Results and Discussion

Participants with slack and standard mental budgets were expected to use fewer total points compared to participants without slack. In both the constrained aim and slack condition, participants set for themselves a lower reference point than in the no slack condition. However, despite the lower reference point in both these conditions, we expected that only participants with slack would use a significantly lower number of points than participants in the no slack condition. We hypothesized that the harder boundaries of the flexibility within slack would have a different effect than the softer boundaries within the constrained aim. We test these expectations by looking at average estimates and actual performance per condition.

Reference Point Control

Participants not given a reference point nor asked to set a mental budget consumed on average 33 points in both the first and second week. This served to ensure that our reference point for participants in the standard mental budget conditions (33 points) was at a reasonable level and our reference point in the deprived mental budget conditions (20 points) was comparatively low.

Estimations

As expected, participants who had standard mental budgets estimated that they will use significantly more points than participants with deprived mental budgets ($\beta=12.03$ $p < .001$). Upper bound estimations for participants in the constrained aim, slack, and no slack conditions

did not significantly differ within each mental budget condition (see Table of Means for all estimates). Since estimations do not differ per condition, we can directly compare the total number of points that participants used as a measure for how participants performed.

[INSERT TABLE OF MEANS HERE]

Controls

Our remaining analyses focus on comparisons of actual usage per flexibility condition (constrained aim, slack, or no slack). These analyses control for a variety of individual differences which may also influence food choices among our participants, including body mass index (BMI), self-control, gender, past dieting behavior, week, and estimation; all reported significant results hold with or without inclusion of these controls. There is a main effect for week, such that participants used significantly more points ($\beta=2.25$, $p < .01$) and were more likely to deviate from their budget in Week One compared to Week Two ($\beta=.48$, $\chi^2(1) = 5.41$, $p < .05$). We find significant effects of self-control on performance, which are reported in more detail below.

Standard vs. Deprived Mental Budgets

As noted above, participants with standard mental budgets provided estimates significantly above those with deprived budgets. Participants with standard mental budgets also used significantly more points than participants with deprived mental budgets ($\beta=4.50$, $p < .001$). Thus, participants used the reference point that we set in order to form their mental budgets and attempted to stay close to those estimates during their actual choices. Participants with deprived mental budgets were significantly more likely to deviate from their budget than participants with

standard mental budgets ($\beta=.70, \chi^2(1)=10.78, p<.01$), suggesting that the tighter constraint in the deprived condition was more difficult to achieve for most participants.

Effects of Slack

We begin by estimating the effect of flexibility condition (slack, constrained aim, or no slack) on individuals with a standard budget. As expected, participants with slack used significantly fewer points than participants without slack (no slack condition) ($\beta=-4.83, p <.05$). Participants with a constrained aim also used marginally fewer points than participants without slack ($\beta=-3.13, p <.1$). Additionally, participants were significantly less likely to deviate from their budget in the slack condition compared to those in the constrained aim condition ($\beta=-.91, \chi^2(1)=4.59, p<.05$) and those in the no slack condition ($\beta=-1.42, \chi^2(1)=11.46, p<.01$).

The beneficial effects of slack in standard mental budgets lasted throughout Week Two. Participants with slack used significantly fewer points than participants without slack ($\beta=-4.52, p <.05$). However, participants with a constrained aim did not use significantly fewer points than participants without slack ($\beta=-3.16, p =ns$). This may suggest that slack can lead to persistence in sticking to self-control goals over time.

Based on these results, we can see the differential effects of constrained aim and slack on standard mental budgets. Participants with the constrained aim had both the flexibility and lower reference point that participants with slack had. However, as the flexibility in slack is perceived as only for emergency use, the constrained aim does not have the same rigid boundaries and thus “bright” lines that slack has. Our results suggest that the harder boundaries of the slack are contributing to the increased self-control performance rather than the flexibility and lower

reference point alone.

Turning to participants with a deprived budget, we find that participants with slack used directionally more points than participants without slack in Week One ($\beta=2.932$, $p = ns$). Participants with slack also used marginally more points than participants without slack in Week Two ($\beta=4.15$, $p < .1$). Additionally, participants were significantly more likely to deviate from their budget when they were in the slack condition compared to participants in the constrained aim condition ($\beta=1.79$, $\chi^2=9.11$, $p<.05$) but not significantly more so than those in the no slack condition ($\beta=.17$, $\chi^2(1) = .15$, $p=ns$). Therefore, slack appears to hurt self-control performance when participants have too low of a mental budget.

These findings support previous research that participants in “poor” states focus more on the decisions at hand rather than thinking about the future (Shah et al., 2012). With a deprived amount of points to consume, participants may be focused more on temporary indulgences rather than the relatively longer-term goal of losing weight. As many individuals set goals to be too difficult, especially overly-eager dieters, this finding may be especially relevant in developing self-control strategies.

Individual Differences in Self Control

We also tested whether individual differences in self-control levels influenced our flexibility condition results. The effect of slack on total number of points consumed did not depend on self-control levels. However, the effect of constrained aim on total number of points consumed did depend on self-control levels in standard budget conditions ($\beta=.45$, $p<.05$). We used the Johnson-Neyman technique in order to identify regions in which the number of points used between participants in the constrained aim and no slack condition significantly differed at

different self-control levels (Hayes & Matthes, 2009; Johnson & Neyman, 1936; Spiller, Fitzsimons, Lynch, & McClelland, 2012). The Johnson-Neyman point for $p < .05$ occurs at a value of 48.33 (.41 standard deviations above the mean) for the self-control moderator.

Individuals with a constrained aim and a standard mental budget were found to use significantly more points than individuals without slack if they had relatively high self-control values greater than 48 (range from 17-62). However, there was no significant difference between the groups for individuals with lower self-control values. Therefore, for high self-control individuals, flexibility without hard boundaries may be especially detrimental for self-control behavior.

Implications and Future Directions

Prior research has shown that flexibility in mental budgets can negatively influence self-control performance. However, without any flexibility, individuals may fall prey to self-control depletion and the what-the-hell-effect. The results of this experiment are consistent with our hypothesis that slack can be beneficial to self-control performance by providing the proper balance of flexibility and constraint to mental budgets. Specifically, our study finds that participants with slack in standard mental budgets chose significantly healthier options than those without slack in a hypothetical weight-loss program. We show this effect to be specific to slack rather than simply flexibility alone.

This paper contributes to the literature on self-control by suggesting a possible strategy to improve self-control performance. Our experiment explored the influence of slack on self-control behavior in the dieting domain. However, the influence of slack could improve or decrease performance in other areas requiring self-control. Previous research in the grocery store domain has found the relationship between slack, defined as the mental budget portion left for in-store

decisions, and budget deviation to depend on factors such as impulsivity, aisles shopped, and trip length (Stilley et al., 2010). Future research would benefit from extending the concept of slack into other self-control domains and real-world contexts, such as savings behavior.

This paper also contributes to the literature on scarcity. This experiment demonstrated that slack influences those with deprived mental budgets differently than those with standard mental budgets. With deprived mental budgets, slack may not be able to provide any sense of indulgence or flexibility and also might exaggerate the feeling of failure. Therefore, potential solutions for self-control problems may influence those in a “poor” state differently. Future research should further explore why slack is detrimental for deprived mental budgets and develop self-control strategies that may help those in deprived states.

This paper speculates on potential mechanisms behind slack’s effect on self-control behavior. We suggest that slack may be able to provide enough flexibility to reduce self-control depletion while also providing enough constraint to restrict endless exceptions to rules. Additionally, parallel to the mere presence of a healthy option that fulfills health-related goals and leads to indulgent choices (Wilcox, Vallen, Block, & Fitzsimons, 2009), the availability of slack may fulfill indulgent goals, leading to healthy choices. As a result, individuals may generate fewer counterfactuals about reasons to diet and be able to persist longer in dieting. Future research should empirically address potential mechanisms behind these findings.

Through years of experience, Weight Watchers has become one of the most successful and effective weight loss programs by incorporating the concepts of both mental budgets and slack. Therefore, in the real world and in an experimental context, it is apparent that including slack in mental budgets is a successful self-control strategy. By exploring more about the

mechanisms and applications of slack, we can not only understand more about the reasons for self-control failure but also begin to help people regulate their behavior in a variety of other domains.

References

- Ainslie, George. (1992). *Picoeconomics: The strategic interaction of successive motivational states within the person*: Cambridge Univ Press.
- Baumeister, Roy. (2002). Yielding to Temptation: Self - Control Failure, Impulsive Purchasing, and Consumer Behavior. *Journal of Consumer Research*, 28(4), 670-676. doi: 10.1086/338209
- Brody, Jane. (1991, July). Personal Health, *The New York Times*.
- Carver, Charles S, & Scheier, Michael F. (1981). *Attention and self-regulation: A control-theory approach to human behavior*: Springer-Verlag New York.
- Carver, Charles S, & Scheier, Michael F. (2001). *On the self-regulation of behavior*: Cambridge University Press.
- Cheema, Amar, & Soman, Dilip. (2006). Malleable mental accounting: The effect of flexibility on the justification of attractive spending and consumption decisions. *Journal of Consumer Psychology*, 16(1), 33-44.
- Cochran, Winona, & Tesser, Abraham. (1996). The “what the hell” effect: Some effects of goal proximity and goal framing on performance. *Striving and feeling: Interactions among goals, affect, and self-regulation*, 99-120.
- Hayes, Andrew F, & Matthes, Jörg. (2009). Computational procedures for probing interactions in OLS and logistic regression: SPSS and SAS implementations. *Behavior Research Methods*, 41(3), 924-936.

- Heath, Chip. (1995). Escalation and de-escalation of commitment in response to sunk costs: The role of budgeting in mental accounting. *Organizational Behavior and Human Decision Processes*, 62(1), 38-54.
- Heath, Chip, Larrick, Richard P, & Wu, George. (1999). Goals as reference points. *Cognitive psychology*, 38(1), 79-109.
- Hellmich, Nanci. (2013, January). Fewer People Say They're on a Diet. *USA Today*.
- Hoch, Stephen J, & Loewenstein, George F. (1991). Time-inconsistent preferences and consumer self-control. *Journal of Consumer Research*, 492-507.
- Johnson, Palmer Oliver, & Neyman, Jerzy. (1936). Tests of certain linear hypotheses and their application to some educational problems. *Statistical Research Memoirs*.
- Kirby, Kris N. (1997). Bidding on the future: Evidence against normative discounting of delayed rewards. *Journal of Experimental Psychology: General*, 126(1), 54.
- Krishnamurthy, Parthasarathy, & Prokopec, Sonja. (2010). Resisting That Triple - Chocolate Cake: Mental Budgets and Self - Control. *Journal of Consumer Research*, 37(1), 68-79.
- Mullainathan, Sendhil. (2012). Decision Making and Policy in Contexts of Poverty. *The Behavioral Foundations of Public Policy*, 281.
- O'Donoghue, Ted, & Rabin, Matthew. (1999). Addiction and self-control. *Addiction: Entries and exits*.
- Shah, Anuj K, Mullainathan, Sendhil, & Shafir, Eldar. (2012). Some consequences of having too little. *Science*, 338(6107), 682-685.
- Shefrin, Hersch M, & Thaler, Richard H. (1988). The behavioral life - cycle hypothesis. *Economic inquiry*, 26(4), 609-643.

- Spiller, Stephen, Fitzsimons, Gavan, Lynch, John, & McClelland, Gary. (2012). Spotlights, Floodlights, and the Magic Number Zero: Simple Effects Tests in Moderated Regression. *Journal of Marketing Research*.
- Stilley, Karen M, Inman, J Jeffrey, & Wakefield, Kirk L. (2010). Planning to Make Unplanned Purchases? The Role of In - Store Slack in Budget Deviation. *Journal of Consumer Research*, 37(2), 264-278.
- Strotz, Robert Henry. (1955). Myopia and inconsistency in dynamic utility maximization. *The Review of Economic Studies*, 23(3), 165-180.
- Tangney, June P, Baumeister, Roy F, & Boone, Angie Luzio. (2004). High self - control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of personality*, 72(2), 271-324.
- Thaler, Richard. (1985). Mental accounting and consumer choice. *Marketing Science*, 4(3), 199-214.
- Thaler, Richard. (2004). *Mental accounting matters*: Russell Sage Foundation. Princeton, NJ: Princeton University Press.
- Wertenbroch, Klaus. (1998). Consumption self-control by rationing purchase quantities of virtue and vice. *Marketing Science*, 17(4), 317-337.
- Wilcox, Keith, Block, Lauren G, & Eisenstein, Eric M. (2011). Leave Home Without It? The Effects of Credit Card Debt and Available Credit on Spending. *Journal of Marketing Research*, 48(SPL), S78-S90.
- Wilcox, Keith, Vallen, Beth, Block, Lauren, & Fitzsimons, Gavan J. (2009). Vicarious goal fulfillment: When the mere presence of a healthy option leads to an ironically indulgent decision. *Journal of Consumer Research*, 36(3), 380-393.

Zauberman, Gal, & Lynch, John. (2004). Resource slack and propensity to discount delayed investments of time versus money. *Available at SSRN 502586.*

Table of Means.

A table of the means for the total number of points used, upper estimations, lower estimations, and slack separated by week and level of mental budget.

<i>Week 1: Standard Mental Budget</i>				
	Total	Upper Estimation	Lower Estimation	Slack
Constrained Aim	35.00	33.64	30.93	2.71
Slack	33.48	36.28	31.38	4.90
No Slack	38.31	34.34	NA	NA

<i>Week 1: Deprived Mental Budget</i>				
	Total	Upper Estimation	Lower Estimation	Slack
Constrained Aim	29.18	23.86	21.71	2.14
Slack	31.85	22.19	18.67	3.52
No Slack	30.56	21.72	NA	NA

<i>Week 2: Standard Mental Budget</i>				
	Total	Upper Estimation	Lower Estimation	Slack
Constrained Aim	32.43	32.86	30.86	2.00
Slack	31.07	35.28	31.07	4.21
No Slack	35.59	35.59	NA	NA

<i>Week 2: Deprived Mental Budget</i>				
	Total	Upper Estimation	Lower Estimation	Slack
Constrained Aim	26.89	25.61	22.18	3.43
Slack	29.04	26.26	22.89	3.37
No Slack	26.92	24.32	NA	NA