It is not what you get but when you get it: The effect of gift sequence on deposit balances and customer sentiment in a commercial bank

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The impact of gifts on deposit balances and customer sentiment was examined in a longitudinal field experiment conducted on depositors at a bank. Several factors were manipulated: gift type, the accompanying message, and the sequence of gift value, which was either increasing ($35 then $100 gift), decreasing ($100 then $35 gift), or a single gift. Gifts increased deposit balances, survey response rates, and measures of customer satisfaction, trust and loyalty compared to the no-gift control. Within gift conditions the sequence of gift value was the most important factor, with a highly detrimental effect of decreasing value on deposit balances. These results showed evidence of persistence in a long term follow-up analysis of deposit balances.

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Customer reward programs that offer incentives for repeated business have become extremely widespread. These programs go by many names, including "continuity programs," "frequency programs," "loyalty programs," and "category destination programs." They are thought to create switching costs for customers by rewarding cumulative purchases, often with the use of points that can later be exchanged for free services or products (Banerjee and Summers 1987; O'Brien and Jones 1995; Shoemaker and Lewis 1999). Though these types of programs can be effective in increasing sales (e.g. Dreze and Hoch 1998) they are also prone to various pitfalls. As customers adapt to rewards and come to expect them, they are likely to view them as an entitlement rather than an incentive, and the development of expectations makes them difficult to unwind, even when they are unsuccessful. Further, the complexity of cashing in rewards and the information bombardment from multiple competing programs can become a source of confusion and frustration.

The aim of the current research was to address these concerns with a novel loyalty program. Customers who participated in the program were sent either a single or a sequence of unexpected gifts. Rewarding customers with surprise gifts deals with the most serious problems associated with traditional, transactional points-based loyalty programs. Because the rewards are unexpected and require no action by customers, they reduce the cognitive and attentional demands associated with points programs, reduce frustration, and are also easier to terminate in the sense that customers are unlikely to miss a program that they were never informed about.

The design of the loyalty program drew on two principles from the literature in behavioral decision research. The first is the impact of reciprocity on individual behavior (Cialdini 1985). Research has documented the impact of gifts on several types of behavior, e.g. consumer decision making (Beltramini 2000), charitable giving (Falk 2007), and worker

productivity (Bellemare and Shearer 2007; Fehr, Gachter, and Kirchsteiger 1997; Gneezy and List 2006). However, little research has examined the impact of gifts on customer loyalty. Based on the robust effects observed for reciprocity in prior research, we predicted that surprise gifts would create a feeling of future obligation in customers that would lead them to keep more funds on deposit at the bank and also to experience more positive sentiment towards the bank.

The second principle from behavioral decision research addressed by the current study is the preference for improving sequences. Much research has shown that the sequencing of outcomes over time influences the overall evaluation the experience. Experiments that compare people's reactions to different temporal patterns of delivery of a fixed amount of money or wages over time find that people prefer rising sequences (going from small to large) to falling sequences (going from large payments to small) (Frank and Hutchens 1993; Loewenstein and Sicherman 1991; Schmitt and Kemper 1996). This effect has been demonstrated hypothetically in numerous domains, ranging from academic performance (Hsee and Abelson 1991) to stock performance (Ariely and Zauberman 2000) and in laboratory experiments for actual experiences of discomfort (Kahneman et al. 1993) and entertainment (e.g. Baumgartner, Sujan, and Padgett 1997). To examine the impact of improving versus declining sequences, we randomly assigned customers to receive different sequences of gifts. The current study is the first, to the best of our knowledge, to test for such sequence effects in a field setting.

We tested the program in a randomized field experiment conducted with customers of a major northeastern bank. The study was naturalistic in the sense that customers were not informed that they were taking part in an experiment. Depositors were randomly assigned to either a no-gift control group, or to one of several experimental conditions in which they received gifts at one or two time points. The sequence of gift value was either increasing ($35

then $100 gift), decreasing ($100 then $35 gift), or a single gift. The gifts were either gift certificates to gas stations or restaurants. We also manipulated whether or not the accompanying message suggested to customers that they could reciprocate the gift by contacting the bank to set up new services.

The main dependent variable measuring the impact of the loyalty program was the customer's account balance. Participants were high-balance customers who the bank believed utilized multiple banks, and thus had discretion about where to keep their money on deposit. Two other dependent variables were connected to a short survey all customers received at the end of the study which asked about their satisfaction, trust, and feelings of loyalty towards the bank, as well as feelings of entitlement to free gifts from the bank. We used response rate to the survey as dependent variable, as well as, for those who completed the survey, the customer's response to the questions.

A quick summary of our findings is that customers who received gifts, compared to those in the no gift control group, had higher deposit balances, were more likely to respond to the survey, and, when they did, reported higher average levels of satisfaction. Within gift treatment conditions, the cost sequence of the gift was the most important factor influencing account balances and customer sentiment. Increasing sequences resulted in significantly higher deposit balances than decreasing sequences, and in a higher survey response rate. The negative impact of a decreasing sequence was so strong that a decreasing trend was worse than simply giving the initial gift with no second follow-up gift, and was comparable to the no-gift control condition. In combination, these findings suggest that using people’s inclinations towards reciprocation and preferences for increasing sequences are potentially fruitful strategies for designing effective customer loyalty programs.

Reciprocity

Reciprocity is a fundamental social norm, which dictates that people repay positive actions, such as gifts, favors, or concessions (Gouldner 1960). Violating the norm of reciprocity is likely to engender social disapproval and internalized feelings of shame. Consequently gifts and favors have powerful effects on behavior by creating a feeling of future obligation in the recipient towards the giver. Cialdini (1985) discusses several illustrations of the power of gifts, such as the use of free samples to increase sales, the fundraising technique of Hare Krishnas to force a flower into the palm of a potential donor, and the boost in survey response rates when money is enclosed instead of promise of payment upon completion.

In gift-giving game experiments, a "gift" of a wage above market clearing level from the participant in the role of "employer" is reciprocated by a voluntary increase effort from the "employee" (e.g., Fehr, Gachter and Kirchsteiger 1997). This effect has been demonstrated in field settings. Gneezy and List (2007) found increases in worker productivity when participants were told they would be paid a wage approximately 50% higher than anticipated. However, these effects lasted only for the initial hours of the experiment and ultimately the cost of the gift outweighed the gains from increases in productivity. Bellemare and Shearer (2007) argue that these experiments were spot market transactions and demonstrated in a study involving workers at a firm, that a one-time $80 bonus for a day's work significantly increased productivity over the course of several days. However, again, the increase in productivity did not compensate for the cost of the gift.

This norm of reciprocity is not limited to exchanges between individuals, but also applies between individuals and organizations. Charitable donations were significantly higher when the request letter contained a gift of a postcard and were even higher for a larger gift of four

postcards (Falk, 2007). Hotel guests are more likely to reuse their hotel towels when they receive a message stating that the hotel management has already made a charitable donation towards an environmental cause, implicitly asking the guest to reciprocate management's efforts (Goldstein, Cialdini and Griskevicius 2008). Morales (2005) found that people feel gratitude in response to effort made by companies, e.g. invested in product presentation, and that gratitude partly mediates the propensity to purchase. In a controlled field experiment between sales people at a manufacturing firm and purchasing agents, sales increased when customers received an expensive gift (gold scissors and letter opener set) but not when they received a less expensive gift (a silver set) (Beltramini 2000).

In the current experiment, we expect increases in deposit balances and customer sentiment to result from feelings of gratitude and indebtedness triggered by the gifts. This effect is likely to be especially pronounced because the gifts are unexpected and hence likely to trigger surprise, which is associated with focus of attention (e.g., Sokolov 1963). The impact of surprise gifts is also likely to be substantial if their purpose is not entirely clear, as was the case in the program. Prior research has found that uncertainty about the rationale for positive outcomes increases the intensity and duration of positive affective reactions (Wilson et al. 2005).

Preference for increasing trends

Two overlapping streams of literature have examined the preference for increasing trends. The time discounting literature in behavioral economics describes the preference for increasing trends as a major anomaly to the norm of positive time discounting (i.e. underweighting future costs and benefits) in models of inter-temporal choice. Two lines of literature have identified positive trend as a feature that is likely to enhance the value of a

sequence of outcomes. One line of research examines *prospective* evaluations of sequences that are described to decision makers but which people have not yet experienced. The other line of research examines *retrospective* evaluations of extended episodes that people have already experienced. Both challenge the assumption that the evaluation of an experience extended over time is a simple additive combination of its discrete components.

Prospective evaluation of sequences. Time discounting describes how people trade off costs and benefits that occur at different points in time. Standard economic theory and behavioral models of intertemporal choice assume positive time discounting - that future costs and benefits ought to be discounted in value. Positive discounting tends to apply when people make trade-offs between a *single* current and future gain, but does not generally apply to the valuation of an entire sequence of outcomes that involves a sequences of *multiple* rewards (Loewenstein and Prelec 1993; Stevenson 1993). For example, Loewenstein and Prelec (1993) find that people show positive time preference when evaluating a single, desirable outcome, such as a fancy French diner- they would like to have the dinner in one month, rather than in two months. However, if this fancy dinner is framed as a part of sequence with a mediocre Greek diner, then peoples' preferences shift to postpone the fancy dinner for two months so they can have it after the mediocre Greek diner. This effect, later replicated and dubbed the "hidden zero effect" (Magan, Dweck and Gross 2008), is consistent with negative time discounting (i.e., weighing costs and benefits more heavily in the future). As Loewenstein and Prelec (2003) summarize, time preference depends on two distinct and often contradictory motives: impatience, and a preference for improvement when rewards are framed as components of a sequence.[i]

In addition to violating the assumption of positive discounting, preference for improvement also violates another common assumption in models of inter-temporal choice: the

independence of utility. Temporal independence implies that the overall value of a sequence is equal to the summed values of its component outcomes. Violations of independence occur when, instead, of considering the utility of each outcome separately, people consider outcomes in relation to other outcomes in the sequence (Frederick, Loewenstein and O'Donoghue 2003).

Early work on preferences for increasing trends was motivated by the desire to explain an anomaly in labor economics. In many occupations, wages rise with both age and tenure faster than productivity (Frank and Hutchens, 1993). Holding total wages constant, workers should prefer a sequence of wages that decreases over time. A decreasing sequence allows them to maximize the present value of their expected lifetime earnings by saving or investing heavily in early earnings, allowing them to consume more in every period. Contrary to this normative prediction, two papers (Loewenstein and Sicherman 1991; Frank and Hutchens 1993) presented evidence that individuals prefer wage profiles that rise over time, compared to constant or decreasing wage profiles. Loewenstein and Sicherman (1991) report that participants chose increasing over constant or decreasing cash flows, even though the net present value of the decreasing cash flow is higher. This finding held across two sequence domains (wages and rent) even when respondents were provided with the rationale for maximizing net present value.

Many other empirical studies have found a preference for increasing trends. For example, Ross and Simonson (1991) found that a sequences that ends with a gain (e.g., lose $15, then win $85) is overwhelmingly preferred to one that ends with a loss (e.g., win $85, then lose $15). The effect has been demonstrated in numerous other domains, ranging from academic performance (Hsee and Abelson 1991) to stock performance (Ariely and Zauberman 2000) to short-term health outcomes (Chapman 1996).[ii]

There are a variety of 'real world' findings (though no randomized field studies) that are consistent with widespread negative discounting of the future. Several studies of life-cycle consumption find that consumption tends to increase over time until retirement beyond what can be explained by factors such as increased family size, medical costs, and so forth (see, e.g., Courant, Gramlich, and Laitner 1984). The stock market rewards firms who report patterns of increasing earnings after controlling for growth and risk (Barth, Elliott, and Finn 1999). Using survey panel data on job satisfaction, Clark (1999) found a strong positive relationship between increases in wages over time and job satisfaction, but no relationship between absolute levels of pay and job satisfaction. He proposed a reference-dependent utility function that is analogous to addiction, whereby income in the previous period has a harmful effect on utility in the subsequent period. In other words, the higher the past income, the higher current income must be to reach a given level of utility.

Retrospective evaluations of sequences. The preference for improving sequences is also the focus of a closely related line of psychological research on the "psychophysics" of hedonic experience. Holding totally intensity of experience constant, sequences that improve over time are rated more positively than constant sequences. Similarly, constant sequences are rated more positively than sequences that decrease over time. The preference for improvement holds for aversive sequences (e.g., Varey and Kahneman 1992) and pleasurable sequences (e.g. Baumgartner, Sujan, and Padgett 1997).

Similar to documented violations of temporal independence, this research examines disassociations between the evaluation of individual components of experience over time and the evaluation of the overall experience. Rather than evaluating the overall value of a past experience based on the (perhaps weighted) sum of values of its component parts, this research

suggests that people tend to focus on what Ariely and Carmon (2003) refer to as 'gestalt characteristics' of the sequence. Specifically, the characteristics of a sequence that appear to exert a strong, consistent effect are the trend (the focus of the current paper), end and the peak values (Baumgartner, Sujan, and Padgett 1997; Frederickson and Kahneman 1993; Redelmeier and Kahneman 1992), and rate of change (Ariely, 1998, Zauberman and Ariely 2006). Kahneman and colleagues argue that a simple unweighted average of peak and end values predict global evaluations with good accuracy. It is thought that these features exert their effect by influence on memory – recency and salience, which play a major role in the encoding of experience.

As noted above, the end value is often confounded with trend or improvement over time; if it ends well, it must be better than most of what came before. To our knowledge, no study thus far has explicitly set out to differentiate the effects of improvement over time from a happy ending, although Schmitt and Kemper (1996) find that improving sequences tend to be preferred to a sequence with an ending bonus[iii]

Explanations for the effect

There are several explanations for why people demonstrate preferences for and better evaluations of improving trends (see Loewenstein and Prelec, 1993). The most common explanation involves adaptation and loss aversion (Kahneman and Tversky, 1979). Adaptation reflects the perceptual tendency to adjust to current stimulus and to be highly sensitive to small magnitudes of change from the current level. Loss aversion describes the disproportionate psychological disutility of a loss relative to the utility of a gain of equivalent value. Losses and gains are understood relative to the status quo (e.g. current wealth) or some other reference point,

such as expectations. Adaption and loss aversion imply that decreasing trends will be viewed as a series of painful losses. The findings of the current paper, that deposit balances are higher for bank customers who receive gifts of increasing value are consistent with this explanation. Note that the preference for improving sequences over constant sequences does not rely on loss aversion and suggests that adaptation, by itself, is a sufficient explanation. However, the current experiment cannot help differentiate these effects.

Savoring or dread is another explanation why people choose increasing over decreasing sequences. People may derive utility from anticipating positive events in the future and disutility from the anticipation of a negative event (Loewenstein, 1987). Improving sequences allow the anticipation of future gains, while worsening sequences force the anticipation of future losses (or losses relative to the status quo). Savoring and dread, however, cannot help explain the current findings since people had no expectation of receiving any reward, let alone a sequence.

Hypotheses

Based on theories of reciprocity, we aimed to demonstrate that customers would respond to gifts from the bank by increasing their deposit balances and would experience more positive sentiment towards the bank. Positive sentiment towards the bank was measured by survey response rates and responses to a short survey administered by mail at the conclusion of the experiment.

H1a: Deposit balances will be higher among customers who receive a gift from the bank compared to customers who did not receive any gifts.

H1b: Survey response rates and measures of trust, satisfaction, and loyalty towards the bank will be higher among customers who receive a gift from the bank compared to customers who did not receive any gifts.

We expected customers to feel a greater inclination to reciprocate the gift when they were given an avenue to reciprocate the gift, which is an implicit request for reciprocation. Half of the participants in the gift treatment conditions were given a number to call to sign up for additional services, such as estate planning or investment services. Previous research found that subjects evaluated a hypothetical gift more positively and expressed a greater desire to reciprocate the gift when they were given an implicit request for reciprocation: a letter stating that the company would appreciate the customer's business in the future (Bodur and Grohmann 2005).

H1c: Within the gift treatment conditions, deposit balances will be higher among customers who receive information about how to reciprocate the gift.

Based on the literature on the preference for and greater hedonic experience of increasing trends, we aimed to show that customers would respond more positively to receiving gifts that increased in value over time.

H2a: Deposit balances will be higher among customers who receive gifts that increase in value over time compared to customers who receive gifts that decrease in value over time.

H2b: Survey response rates and measures of trust, satisfaction, and loyalty towards the bank will be higher among customers who receive gifts that increase in value over time compared to customers who receive gifts that decrease in value over time.

Methods

Bank customers. The experiment was conducted with high balance customers in a midsize commercial bank. High balance customers were targeted because the bank believed that these customers were most likely to hold assets at competing banks and thus had the discretion to increase their holdings at the target bank either through transfers, by increasing spending out of competing accounts, or by increasing the magnitude or frequency of deposits.

High balance customers were defined by the bank as those with assets greater than $100,000 combined in checking accounts, saving accounts, money market accounts, and CDs. As will become apparent in the analysis, this selection criterion resulted in a reversion to the mean effect across all conditions. Since bank customers were selected for their high balances, over time there was a general trend in the data for deposit balances to decrease. The bank managers who were collaborating with us on this project anticipated this effect based on previous tracking of high balance customers. Thus, the anticipated and observed impact of or treatments was to decrease this rate of decline rather than to produce an actually increase in balances.

Available data on these customers included the number of years the customer had been with the bank (tenure) and the number of distinct services that the customer had with the bank (investment account, online banking, estate planning, etc.). These variables and dummy variables for the three markets in which the experiment was conducted are used as controls in the regression analyses.

Experimental procedures. High balance customers were selected in equal numbers from each of the three markets and were randomly assigned to the different conditions. Twelve-hundred customers were assigned to the no gift control condition and 750 to each of the

experimental gift treatments. Thirty-seven of the accounts selected as high balance customers were closed between the selection process and the start of the experiment and were dropped. (Note that after the start of the experiment, the closing of an account would have been treated as a decline of balances to zero.) Five accounts were dropped due to extreme values at the start.[iv] This brought the number of subjects in Phase 1 to 1,178 in the control condition and 730 in the gift treatment conditions.

Customers in the control condition did not receive any gifts, and, aside from the survey at the completion of the experiment, were simply monitored. Customers in the treatment group were randomly assigned to condition. In Phase 1 of the experiment, three things were manipulated 1) the type of gift, 2) the cost of the gift, and 3) whether or not the card enclosed with the gift suggested a way that the customer could reciprocate the gift. See Table 1 for a summary of the experimental conditions.

The type of gift was manipulated based on the bank's desire to understand the relative efficacy of different types of gifts. Gift type was a gift certificate either for a local gas station chain or a local high-end restaurant. The enclosed card read as follows for gas gift certificates, "We value your business and want to thank you for banking with X Bank. We thought we'd help take the sting out of rising gas prices. Please enjoy the enclosed gas gift certificate." For the restaurant gift certificates the card read, "We value your business and want to treat your palate. Thank you for banking with X Bank. Bon appétit!"

For gas cards only, the cost of the gift was either $35 or $100. The restaurant gift card was always for $100, since we wanted the gift to cover the cost of dinner for two and did not want bank customers to misinterpret the gift as a marketing promotion designed to make them

spend money out-of-pocket. The restaurant gift cards could be used at any one of several restaurants owned by a local conglomerate of high-end restaurants.

Half of the customers in each of the gift conditions also received information about how they could potentially reciprocate the gift. For those given such information, after the text described above the card continued, "We also feel you may benefit from some of our additional capabilities, such as our investment or estate planning services. Please call 1-800… for more information or to set up an appointment."

In Phase 2, approximately five and a half months after the first gift had been sent, the second gift was sent. (See Figure 1 for a time line of the experimental interventions.) Eighteen customers from the 730 in the gift conditions who were assigned to receive a gift in phase 2, did not receive gifts for a variety of reasons: they had placed themselves on a do not contact list, the account was closed, the customer died, or it was discovered that they were a bank employee. These customers were excluded from the analysis. This left 277 customers in the Improving Gas condition, who, having initially received a $35 gas gift certificate, then received a $100 gas gift certificate. There were 280 customers combined in the worsening conditions, all of whom received a $35 gas gift card in Phase 2. One hundred and forty-three of these (in the Worsening Gas condition) had initially received a $100 gas gift card. One hundred and thirty-seven (in the Worsening Restaurant/Gas condition) had initially received a $100 restaurant gift card. Finally, 155 customers (in the Restaurant/No 2nd Gift condition) who had initially received a $100 restaurant gift card in Phase 1 received no additional gift in Phase 2.[v] This condition was included to gauge the added benefit or detriment of a second, less expensive, gift.

Survey. A brief survey was sent by mail in Month 10, approximately 9 months after the initial gift and 4 months after the second gift (if there was one) was sent. The survey fit on a

postcard, which was addressed to the bank with postage paid and was discretely marked with a customer identification code. It was sent to a randomly selected subset of the no gift control condition (500 customers) and to all customers in the gift treatment groups.[vi] The main purpose of the survey was to measure response rates in each condition as an indicator of positive feeling towards the bank.

A secondary purpose of the survey was to directly measure positive sentiment and feelings of entitlement about receiving gifts from the bank. It should be noted that the survey measures only reflect the customers who self-selected to respond to the survey, and thus are likely to be positively biased. However, this positivity bias should be constant across conditions. Three measures of positive sentiment, satisfaction, trust and loyalty, were adapted from Bhattacharya and Sen (2003):

Satisfaction:

- *How would you rate X Bank overall?*
- *X Bank goes above and beyond for their customers.*
- *I would recommend X Bank to my friends and family.*

Trust:

- *If I had a problem with X Bank, I trust that they could resolve it to my satisfaction.*

Loyalty:

- *If I were in need of additional banking services, I would check with X Bank first.*

In addition, a measure of entitlement was included to gauge potential negative consequences of receiving gifts: "*Banks should show gratitude to loyal customers with gifts and special offers."* All scales used a 7-point scale anchored at *strongly agree* and *strongly disagree,* except for the first satisfaction measure which was anchored at *poor* and *excellent.*

Results

Baseline analysis. No significant differences were found in the baseline deposit balances of any of the groups following random assignment to condition (Month 0). The difference between the No Gift Control condition (M = \$171,770, SD = \$109,093) and the gift treatment conditions (M = \$169,229, SD = \$101,531) was not significant ($t_{(1906)} = 0.49$, $p = .62$). Within the experimental conditions there was no difference between the half of the sample who received instructions on how to reciprocate the gift and the half that did not ($t_{(728)} = .99$, $p = .32$). Within the experimental conditions, ANOVA also did not reveal any significant differences between the gift treatment conditions (Improving Gas, Worsening Gas, Worsening Restaurant/Gas, Restaurant/No 2nd Gift) ($F_{(708,3)}$=0.45, p=.45).

Phase 1 Analysis. The main research question in Phase 1 is whether deposit balances are higher in the gift treatment conditions compared to the No Gift Control condition. Table 2 shows the change in deposit balances from the baseline to the five months after the gift was sent (the month before the second gift was sent). Examination of the change scores showed one obvious outlier which was removed from the gift treatment condition.[vii] As discussed above, across all conditions there is a general tendency for deposits to decline, probably reflecting a regression to the mean, since customers were selected for the experiment based on having a high deposit balance.

The drop in deposit balances in the gift groups was, on average, half of the drop in balances by the control group, and this difference was statistically significant (see Table 2). This offers support for hypothesis 1a: giving customers gifts boosts deposit balances.

Results were further analyzed to ensure that this result holds in a regression of changes in deposit balance, including controls for various differences between individual customers (Table 3). The change score method is appropriate for regression analysis with randomized experimental designs (Allison, 1990, Maxwell and Howard, 1981).[viii] Specification 1 shows that the boost in deposit balances in the gift treatment conditions relative to the control remains significant when available control variables are include in the model. The decline in deposit balances is $6,425 smaller in the gift treatment conditions compared to the control condition. Tenure represents the number of years the customer has been with the bank and increases changes in deposit balances by $230 for each additional year, an effect that is marginally significant. This effect is not surprising; customers who have been with the bank for a long time are naturally less likely to cut back their involvement with the bank. The additional control variables are not significant (number of services that the customer uses at the bank and dummy variables for the three markets in which the experiment was conducted).

We predicted that, within the gift treatment groups, customers who received information about how to reciprocate the gift (by calling a number to get information or set up an appointment to learn about additional services) would show a smaller decline in deposit balances compared to customers who did not get this information (hypothesis 1c). This hypothesis was not confirmed. The average drop in deposit balances was greater for those who received instructions to reciprocate (M = -$7,281, SD = $3,407) compared to those who did not (M = -$5,641, SD = $3,496), though this effect was not significant ($t_{(727)}$=0.33, p=.74). It may be that the instructions

to reciprocate were not salient enough. Alternatively, the instructions to reciprocate may have led customers to consider the gift to be a sales ploy, which has been shown to undermine the desire to reciprocate (Morales, 2005).

Overall, results support Hypothesis 1a: deposit balances are higher among customers who received a gift from the bank compared to customers who did not receive any gifts. Figure 2 graphically depicts the change in deposit balances in the control and experimental conditions in Phase 1. Within the gift treatment conditions, there were no significant differences dependent on the Phase 1 gift treatments.

Phase 2 analysis. The Phase 2 analysis compares improving and worsening gift sequences within the gift treatment conditions. Since there were no differences between conditions among the gift treatments following the first gift, the baseline for the Phase 2 analysis is set to the deposit balance at Month 5, which is the last deposit balance prior to the delivery of the second gift towards the end of Month 6. The analysis is conducted on the change from this baseline to the deposit balances at Month 11 (see Figure 1 for timeline).

Figure 3 shows changes in deposit balances between Month 5 and Month 11. The detrimental effect of the worsening conditions is apparent, as they result in a drop in deposit balance even greater than that of the no gift control condition.[ix] The drop in deposit balances is significantly less in the Improving Gas condition compared to the combined worsening conditions (the Worsening Gas and the Worsening Restaurant/ Gas conditions) ($t_{(554)} = 2.13$, $p = .03$). If we only compare the Improving Gas condition to the Worsening Gas condition, this difference is marginally significant ($t_{(417)} = 1.77$, $p = .08$). Strikingly, the drop in deposit balance in the Restaurant/No 2nd Gift condition was less than the drop in the combined worsening

conditions, albeit at a marginal level of significance ($t_{(432)} = 1.84$, $p = .07$); this suggests that an inferior second gift is worse than no second gift at all.

To confirm that these results hold when control variables are included, we conducted a regression analysis on the change in deposit balance in Phase 2 (Table 3). In Specification 2 the Worsening Gas and the Worsening Restaurant/Gas conditions are collapsed and compared to the Improving Gas condition (Improving Gas is coded 0 and worsening conditions are coded 1). The worsening conditions are associated with a significantly greater drop in deposit balances of $13,036. Specification 3 is restricted to the Improving Gas and Worsening Gas conditions only. The Worsening Gas condition is associated with a greater drop in deposit balances of $12,685 and this effect is marginally significant. These effects offer support for Hypothesis 2a: deposit balances are higher among customers who receive gifts that increase in value over time compared to customers who receive gifts that decrease in value over time. Specification 4 confirms that the effect of a worsening trend is so negative that it is better not to send a second gift at all. Again, the Worsening Gas and the Worsening Restaurant/Gas conditions are collapsed and compared to the Restaurant /No 2nd Gift condition. There is a greater reduction in deposit balances in the worsening conditions compared to the No 2nd Gift condition of $13,756 and this effect is marginally significant. Throughout these analyses, the control variable, Tenure, is associated with a significant increase (or smaller decrease) in deposit balance. No other control variables are significant.

Follow-up analysis. A long-term follow-up analysis was conducted in Month 20 to gauge the persistence of the results over time. A comparison of change in deposit balance between the No Gift Control and the combined gift treatment conditions was not significant, as could be expected given the detrimental effects of the conditions in which the gifts worsened over time.

When the worsening conditions are excluded from the analysis, however, the gift treatment conditions showed a smaller drop in deposit balance from the Month 0 baseline (M = -$31,429, SD = $117,885) compared to the No Gift Control (M = -$41,934, SD = $112,914) ($t_{(1608)}$ = 1.63, p = 0.10), though at a marginal level of significance. This effect is also marginally significant when control variables are included in the deposit change regression analysis (β = $11,100, $t_{(1604)}$ = 1.71, p = 0.08).

The negative effect of gifts with worsening trends also persisted over time, but also at a marginal level of significance. A comparison of the combined worsening conditions and the Improving Gas condition from the Month 5 baseline (before the second gift was sent) shows a greater drop in the worsening conditions (M = -$38,968, SD = $105,478) than the improving gas condition (M = -$23,280, SD =$110,730) ($t_{(554)}$ = 1.71, p = .09). This effect is also marginally significant when control variables are included in the deposit change regression analysis (β = $11,100, $t_{(550)}$ = 1.81, p = 0.07) and if we restrict the analysis to only compare the Improving Gas condition with the Worsening Gas condition. The finding that the combined worsening conditions produced a greater drop in deposit balances compared to the Restaurant/No 2nd Gift condition did not persist in the follow-up analysis.

Survey analysis. The survey response rate was significantly higher in the gift treatment conditions compared to the No-Gift Control (38% vs. 25%) and this difference was statistically significant ($t_{(1116)}$=4.80, p<.01). The effect remains significant with control variables in a logit analysis of whether or not the survey was returned (see Table 4).

Figure 5 shows survey response rates in each of the experimental conditions. The improving gas condition has a higher response rate compared to the combined worsening conditions at a marginal level of significance ($t_{(554)}$ = 1.90, p = .06). This effect becomes

significant when control variables are included in a logit analysis of whether or not the survey was returned (see Table 4). No other differences between the gift treatments were significant.

The analysis of the survey measures mirrored the survey response rates and reflected a positive effect of the gifts. Customers in the gift treatment condition reported higher levels of satisfaction, trust, and loyalty (See Figure 4; all differences are statistically significant at the 95% or the 99% confidence level). However, the entitlement measure offers some evidence that the effect of the gifts may not be equivocally positive. Customers in the gift treatment conditions scored significantly higher on the measure of entitlement – the belief that banks should show gratitude to customers with gifts and special offers ($t_{(352)} = 5.47$, $p < .01$).

To simply the analysis of the survey measures between the improving and worsening gift conditions, the measures of satisfaction, trust, and loyalty were collapsed into a composite scale by averaging. Inter-item reliability of the measures of satisfaction, trust, and loyalty was $\alpha = 0.96$. This composite did not include the measure, entitlement, since this was designed to measure unintended negative consequences of receiving gifts. Figure 6 shows the composite measure and the measure, entitlement, by condition. There were no significant differences in this composite measure between the improving and worsening conditions. One possible explanation for the null finding is that most of the people who returned the survey were quite happy with the bank. The average composite score was 6.04 (*S.D.* = 1.38) on a 7-point scale. You would expect that any effect on the survey measures would be attenuated to the degree that only satisfied customers return the survey (which is supported by the lower response rate in the worsening condition). Customers may have been more dissatisfied with the bank in the worsening conditions, but simply not returned the survey. Nevertheless, despite this selection bias we do see

differences in satisfaction in the expected direction between the gift treatment conditions and the no-gift control.

Taken together, these results offer strong support for hypothesis 1b -- that the gifts would engender positive sentiment towards the bank. This was reflected by both higher survey response rates and more positive survey measures in the gift treatment conditions compared to the control condition. Only partial support was found for hypothesis 2b – that increasing trend would engender more positive sentiment than decreasing trends. This was reflected in survey response rates at a marginal level of significance, but not in the survey measures.

Discussion

The boost in deposit balances in the gift treatment conditions compared to the no-gift control suggests that surprise gift programs may be effective alternatives to transactional loyalty programs that rely on point schemes. Though a direct comparison is not possible with data in the current experiment, these gift programs show promise in their ability to produce revenue-generating results. Further, surprise gift programs require less administrative costs since there is no need to sign-up customers, track points, deliver rewards, and address questions or complaints. The results also suggest that surprise gift programs increase positive sentiment towards the bank.

We can roughly estimate the impact of the gifts on the bank's bottom line by using the point estimate for the effect of gifts on the change in deposit balance in Phase 1, which is approximately $6,500.[x] The follow-up analysis suggests that a boost of this magnitude or greater persists until at least Month 20. If we assume an annual return of 2% on deposits, the improving gift sequence pays for itself in approximately one year and the single gift pays for itself in

approximately nine months. This estimate does not capture the longer-term benefits that are likely to result from the significant increases in positive customer sentiment towards the bank, such as the endorsed willingness to give referrals and to look to the bank first when in need of new services.

In addition to the practical implications for marketing, the results contribute to the growing literature that demonstrates the power of the social norm to reciprocate. Consistent with previous research, we find that customers experience the desire to reciprocate the gift, as evidenced by a persistent, positive impact of gifts on deposit balances and an increased survey response rate. The gifts also increase customer sentiment towards the bank, specifically, survey measures of satisfaction, trust, and loyalty. Contrary to the findings of Beltramini (2000), a more expensive gift in Phase 1 ($100 vs. $35) was not associated with a greater boost in deposit balances. Also contrary to the results on the use of gifts in the labor market (Bellemare and Shearer 2007; Gneezy and List 2007) the gifts did generate a positive return.

As predicted by the literature on retrospective and prospective evaluations of sequences, the conditions with gifts that lessened in value over time produced a greater decline in deposit balances compared to the conditions with an improving trend or a single gift. Additionally, the survey response rate was higher in the improving condition compared to the worsening conditions. These results underscore the damage that can be done if customer loyalty programs do not carefully take into account the way their customers experience rewards over time. The effect of worsening trends had a more pronounced impact on deposit balances than type of gift (restaurant vs. gas) or the expensiveness of the gift ($35 vs. $100), which did not result in significant differences in Phase 1.

While the detrimental effect of worsening trends is apparent, the superiority of increasing trends is not clear. We do not have a comparison of gifts that increase in value over time vs. gifts that have a constant value over time. Further research could directly compare two $50 gifts compared to a $25 gift followed by a $75 gift. In the current study, the Improving Gas condition was not significantly better than the Restaurant/No 2nd Gift condition. This may reflect a ceiling effect, meaning that if the first gift was less expensive or if the second gift was sent after more time had elapsed, perhaps we would see an effect of improving trends. The current results suggest that there is no added benefit from a sending an inexpensive gift prior to an expensive gift.

Finally, these findings lend further additional fodder to those who have drawn attention to the potential for field experiments to yield benefits to public policy and business (e.g., List and Levitt 2008). If the bank that implemented the program had not randomized customers to different experimental conditions, including a no treatment control group, they would have achieved some benefits from improved customer loyalty in some gift conditions, but would not have obtained information about whether the program worked or about which combinations of gifts were most effective and cost-effective. Adding the element of random assignment increased costs very modestly, but, by adding knowledge creation to the package of benefits derived from the program, greatly increased its returns.

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Tables

Condition	Phase 1	Phase 2
Control	No Gift n=1,178	No Gift n=1,178
Improving Gas	$35 Gas Gift n=288	$100 Gas Gift n=277
Worsening Gas	$100 Gas Gift n=150	$35 Gas Gift n=143
Worsening Restaurant/Gas	$100 Restaurant Gift n=292	$35 Gas Gift n=137
Restaurant/No 2nd Gift		No Gift n=155

Table 1. Experimental conditions. Half of the gift conditions received the reciprocation manipulation.

Condition	Phase 1 Change in Deposit Balance	t-test
No Gift Control n=1,178	-$12,807 ($1,975)	$t_{(1905)}$=2.01, p=.04
Combine Gift Treatment Groups n=730	-$6,456 ($2,439)	

Table 2. Change in deposit balance in Phase 1. Standard errors are in parentheses.

	Phase 1	Phase 2		
	All data	Improving and all worsening conditions	Improving and worsening gas only	No 2nd gift and all worsening
	(1)	(2)	(3)	(4)
GIFT	$6,425*			
(0=CTRL, 1=GIFT)	($3,164)			
IMPROVING		$13,036*	$12,685+	
(0 = WORSENING, 1=IMPROVING)		($5,961)	($6,990)	
NO 2ND GIFT				$13,756+
(0=WORSENING, 1=NO 2ND GIFT)				($7,370)
TENURE	$230+	$826**	$673*	$1,184**
	($129)	($249)	($270)	($315)
NUMBER OF SERVICES	$1,136	$1,258	$961	-$1,990
	($1,010)	($1,984)	($2,163)	($2,332)
MARKET DUMMY 1	-$2,961	$1,176	$4,512	-$2,647
	($3,775)	($7,300)	($8,061)	($8,654)
MARKET DUMMY 2	-$2,009	$3,331	$1,054	-$10,422
	($3,845)	($7,432)	($8,247)	($8,949)
CONSTANT	-$19,860**	-$34,152**	-$30,618**	-$22,087+
	($5,156)	($9,888)	($10,672)	($13,201)
OBSERVATIONS	1907	556	419	434
R-SQUARED	0.005	0.030	0.025	0.046

*Note: Standard errors in parentheses.** p<0.01, * p<0.05, + p<0.10*

Table 3. OLS regression analysis of change in deposit balance.

	All data	Improving and all worsening conditions
	(1)	(2)
GIFT (0=CTRL, 1=GIFT)	0.661**	
	(0.138)	
IMPROVING		-0.370*
(0 = WORSENING, 1=IMPROVING)		(0.179)
TENURE	0.007	0.023**
	(0.006)	(0.007)
NUMBER OF SERVICES	0.181**	0.084
	(0.044)	(0.059)
MARKET DUMMY 1	0.108	0.143
	(0.158)	(0.215)
MARKET DUMMY 2	-0.052	-0.245
	(0.170)	(0.226)
CONSTANT	-1.973**	-1.007**
	(0.244)	(0.297)
OBSERVATIONS	1118	556
R-SQUARED	0.036	0.031

*Note: Standard errors in parentheses.** p<0.01, * p<0.05*

Table 4. Logit regression analysis of whether or not the survey was returned.

Figures

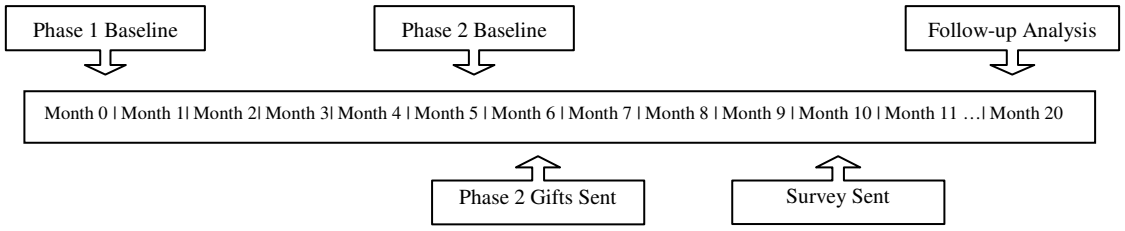

Figure 1. Timeline of procedures.

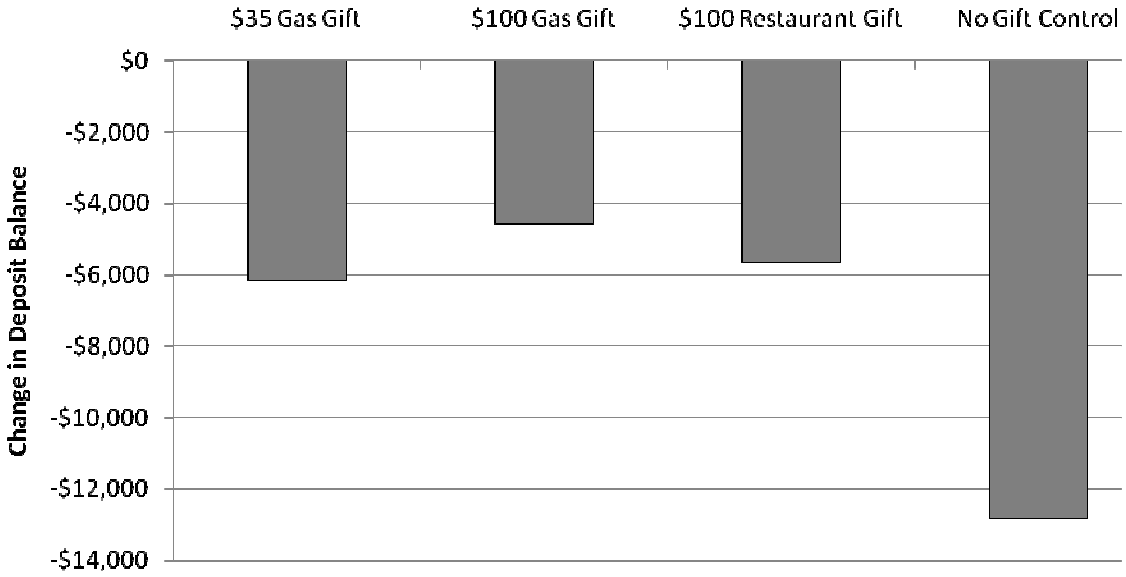

Figure 2: Change in deposit balance by condition in Phase 1.

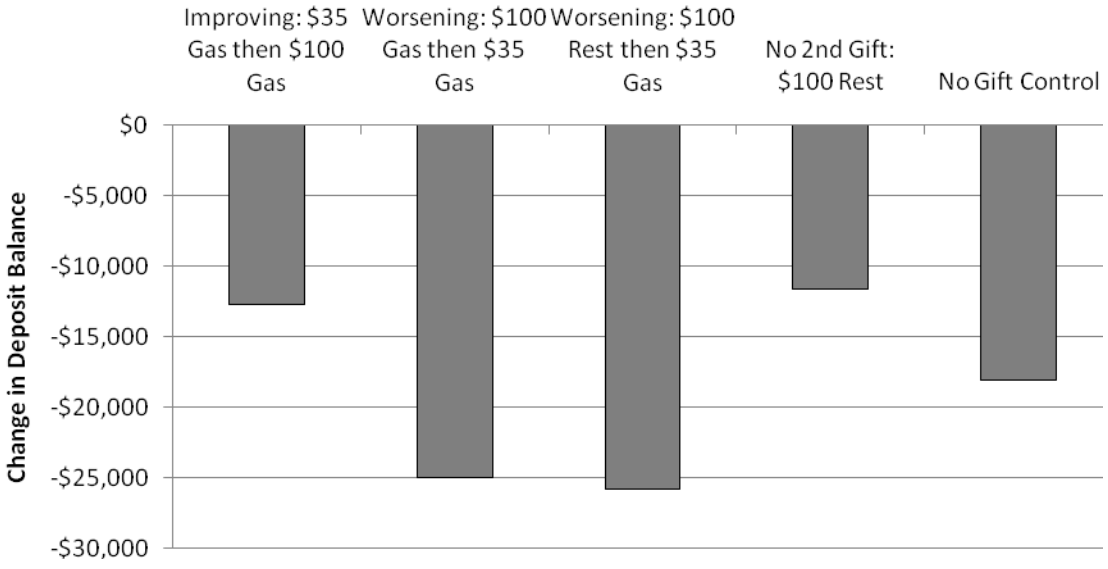

Figure 3. Change in deposit balance in Phase 2.

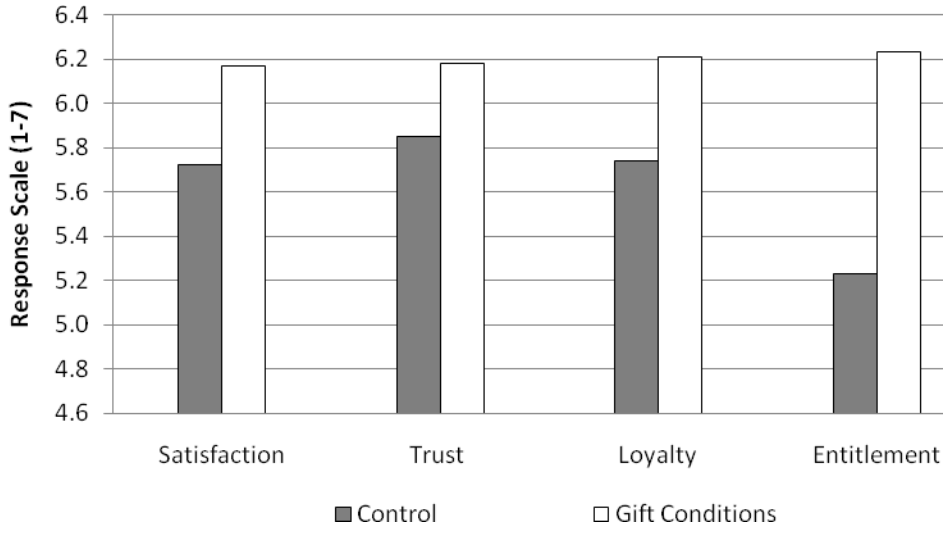

Figure 4. Survey response measures in the Control and the combined Gift Conditions. All measures are significantly higher in the Gift Conditions at the 95% confidence level or above.

Figure 5. Response rates in each of the experimental conditions.

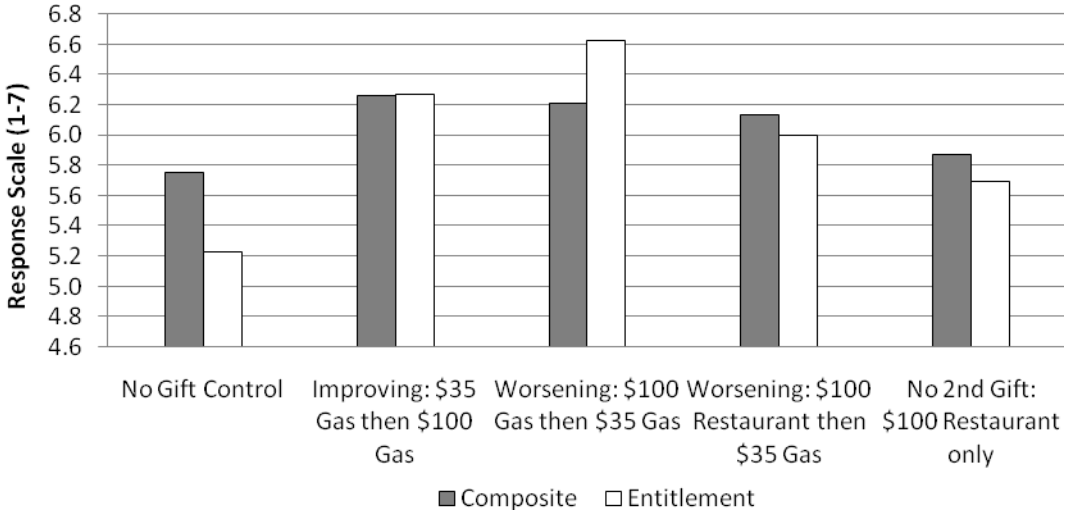

Figure 6. The composite of measures of satisfaction, trust and loyalty, and the single-item measure of entitlement are shown by condition.

Notes

[i] A third motive they discuss is the desire to spread consumption over time.

[ii] However, people do prefer decreasing sequences for health quality over the life cycle (consistent with expectations about deteriorating health in old age) (Chapman, 1996) and for liquid outcome sequences when subjects were highly knowledgeable about present-value calculations (e.g. senior accounting undergraduates) (Matsumoto, Peecher, and Rich, 2000).

[iii] Other studies have separated out the effect of rate of change (slope) from the level of experience at the end of a pattern and find that both exert an independent effect on hedonic evaluation. Zauberman and Ariely (2006) find effects for both end value and rate of change on the evaluation of how satisfying an experience would be (they use graphical depictions of a service experience or test performance). Ariely (1998) found rate of change had an effect independent from end value for retrospective evaluations of pain.

[iv] These observations were between $1.5 and $3.3 million and were obvious outliers. The results are robust to their inclusion.

[v] Several of the customers who were added to the do not contact list could not be sent second gifts, but were simply observed and added to the no second gift condition.

[vi] Due to an oversight only half of the Restaurant/No 2nd gift condition was sent the survey.

[vii] Inclusion of the outlier only strengthens the results but dramatically increases the standard deviation.

[viii] Since X is categorical, the change score method is equivalent to a repeated-measures analysis of variance in which a test for an effect of X on Y is achieved by testing the interaction of X with the within-subject factor (Maxwell and Howard 1981).

[ix] This is a marginally significant effect.

[x] The use of this coefficient is very conservative given that the point estimates for the effect of gifts in Phase 2 was β = $13,407 and was β = $11,100 in the Month 20 follow-up analysis (excluding the worsening conditions).