Save Like the Joneses: How Service Firms Can Utilize Deliberation and Informational Influence to Enhance Consumer Well-Being

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ABSTRACT

This research demonstrates how service firms can encourage decisions that enhance consumers’ well-being through informational social influence. Specifically, we propose that social information regarding the beneficial behaviors of others is enhanced under a deliberative mindset. Given the financial insecurity of consumers, as well as the potential for financial services firms to positively affect consumers’ savings decisions, we test this theorizing in the context of savings. Four studies demonstrate that the open-mindedness associated with the deliberative mindset increases the effectiveness of providing high savings social information (i.e., information about the high savings rates of others). This effect does not occur for consumers with chronically high susceptibility to interpersonal influence, who are open-minded to social information regardless of mindset, but is stronger for myopically-focused consumers, who otherwise may be most likely to discount high savings information. Results suggest that financial services firms may improve consumers’ financial well-being by providing high savings social information and eliciting a deliberative mindset in financial brochures, educational programs, and interactions with financial advisors. Implications for how service firms can utilize a deliberative mindset and informational influence to enhance consumer well-being by encouraging beneficial behaviors like saving, exercising, or energy conservation, which conflict with existing desires, are discussed.

Keywords: Social influence, Mindsets, Financial decision making, Saving, Open-mindedness, Consideration of future consequences, Consumer susceptibility to interpersonal
The current saving behavior of consumers in many developed countries is troublesome. For instance, reports indicated that Americans’ savings rates dipped to negative 1% in 2006 for the first time since the Great Depression (Crutsinger 2007). Although consumers briefly became more cautious and increased savings after the financial crisis, rates were back down to 2.2% in the first quarter of 2013 (The Economist 2010; 2013). With some exceptions (e.g., Germany, France), savings rates are at similar low levels in other developed countries (OECD 2013). Moreover, the U.S. media often reports on the low savings rates of Americans (e.g., CNBC 2013; Forbes 2012; The Denver Post 2013; The New York Times 2013). Indeed, a pretest of American adults revealed that based on the savings information they encounter in the media, they believe Americans’ savings are too low.¹ Low savings rates are particularly troubling because the failure to save is a consistent factor contributing to lowered consumer financial health and well-being (e.g., Manning 2000; Schor 1999; Sullivan, Warren, and Westbrook 1999). Given the detriments of limited savings, the current research shows how financial services firms may improve consumer financial security by encouraging higher savings and proposes ways service firms may encourage beneficial behaviors that have the potential to improve consumers’ well-being.

Improving consumer well-being through transformative service has been identified as one important priority in service research, and spreading the value obtained from service consumption from consumer to consumer has been identified as an important aspect of transformative service research (Ostrom et al. 2010). One way of spreading value from beneficial service consumption across the community is by harnessing the powerful effects of social influence and using the informational value of the beneficial decisions of others. Though prior research has established the effects of social influence on consumer behavior (Cialdini 2007), the influence of social information on well-being enhancing decisions that are often guided by consumers’ interaction with service firms and service offerings (e.g., financial savings programs, recommended exercise...
routines, weight loss programs, and energy consumption) has received little attention. Consumers interact with service providers in many domains in which consumers are both uncertain of what constitutes the most appropriate and effective behavior\(^2\) and may have conflicting desires (e.g., to spend, rather than save). As such, service firms have the opportunity to design informational brochures and programs to help consumers understand what constitutes effective behavior and how to curb their conflicting desires, which, in turn, will help them achieve their long-term goals.

In the case of savings, examined in this research, even though consumers are aware that the overall savings rate in the US is too low, they remain uncertain as to what is an appropriate and realistic savings amount. As Benartzi and Thaler pointed out, “few spend much time calculating a personal optimal savings rate, given the uncertainties about future rates of return, income flows, retirement plans, health, and so forth” (2007, p. 82). When individuals are uncertain about the most appropriate and effective behavior, social evidence is often their guide (Cialdini 2007). As such, consumers may be conforming to the widely publicized and discussed low savings rates. Moreover, saving is in direct conflict with spending, such that the immediate gratification and social approval from spending (e.g., Dreze and Nunes 2009; Ordabayeva and Chandon 2011) might deter the natural informational influence of high savings social information. Similarly, service firms offering weight loss services to minimize overeating (The New York Times 2013) or home energy audits to decrease excessive energy consumption (The Wall Street Journal 2013) may be challenged to overcome consumers’ conflicting desires for more desirable or more convenient alternatives. We seek to demonstrate how financial services firms can employ high savings social information, defined as information about the high savings rates of others, to increase consumers’ savings decisions.

For informational influence to be effective in domains like savings, which are
characterized by uncertainty and conflicting desires, what factors could overcome these potential deterrents and allow service firms to use positive social information to benefit consumers’ decisions? We identify one factor – the deliberative mindset, which is a cognitive orientation activated when considering the pros and cons of potential goals (Gollwitzer 2011). We argue that without adopting a deliberative mindset, the impact of social information on consumers’ decisions that impact their well-being (e.g., savings) will be limited, particularly due to consumers’ conflicting desires and widely available social information on less beneficial behaviors. However, we propose that the enhanced open-minded processing of information, which is characteristic of the deliberative mindset, increases the informational influence of the beneficial behaviors of others. In doing so, we examine whether the open-minded processing of the deliberative mindset enhances conformity to high savings of dissimilar others, a context in which informational influence has not been previously demonstrated. Finally, we consider whether the deliberative mindset is particularly effective for increasing beneficial behaviors among consumers who are myopically focused and would otherwise be most likely to discount information on beneficial behaviors offered by service firms, due to their focus on immediate consequences (Strathman et al. 1994).

This research makes four important contributions to the extant literature. First, we contribute to the service literature by identifying the potential of informational influence to help service firms encourage consumers to make decisions that enhance their well-being (Dagger and Sweeney 2006; Guo et al. 2013). Second, our findings contribute to the broader social influence literature (Cialdini 2007) by demonstrating that consumers’ mindset could enhance informational influence for beneficial behaviors (e.g., saving, weight loss, smoking cessation, energy conservation) for which consumers might have conflicting desires (e.g., spending, eating indulgences, smoking, convenience). To our knowledge, this is the first study to experimentally
examine effects of informational influence on consumer decisions, which may be in conflict with consumers’ current desires and can potentially be aided by service firms’ programs and offerings. Third, we build on research regarding the distinct cognitive features of the deliberative mindset (Fujita, Gollwitzer, and Oettingen 2007), showing that the enhanced open-mindedness to information associated with the deliberative mindset is consequential and enhances informational influence. Finally, this research demonstrates that the open-mindedness of a deliberative mindset allows for conformity to social information regarding the behavior of dissimilar others, rather than being limited to similar others (Cialdini and Goldstein 2004). Such equal conformity regardless of source similarity affords service firms the opportunity to leverage information about the beneficial behaviors of others in differing social classes or across countries, instead of being limited by the less than beneficial behaviors prevalent among peers.

Using personally relevant savings decisions, savings scenarios, and a real monetary decision, we show that the deliberative mindset increases informational influence incorporated in service firms’ programs and offerings, serving as a tool to increase consumers’ savings. The remainder of the paper unfolds as follows. First, we review relevant literature on social influence in services and discuss informational influence and deliberative mindsets. We then present our theoretical framework and test this framework in four studies. We conclude with a discussion of our findings’ contributions to theory and their implications for financial services firms and public policy makers aiming to encourage consumers to engage in more beneficial behaviors and enhance their well-being.

THEORETICAL DEVELOPMENT AND HYPOTHESES

Social Influence in Service Contexts

The social influence resulting from the interpersonal interaction between service providers and customers has received significant attention in the service literature (e.g., Crosby,
Evans, and Cowles 1990; Parasuraman, Zeithaml, and Berry 1988). For example, research on the service encounter, defined as the interaction between a customer and a service provider, focuses on the interpersonal element of service firm performance (e.g., Bitner, Booms, and Tetreault 1990; Ostrom and Iacobucci 1995; Solomon et al. 1985). Another aspect of social influence in services regards customer-to-customer social interactions (e.g., Libai et al. 2010; Zeithaml and Bitner 1996), which has received relatively less attention (Rosenbaum and Massiah 2007), even though service customers tend to have greater confidence in other customers as sources of information (Garnefeld, Helm, and Eggert 2011; Harrison-Walker 2001; Murray 1991). In particular, more research is needed on understanding how service firms could use informational influence to encourage positive consumption behaviors, like savings, from customer to customer (Ostrom et al. 2010). To be sure, Goldstein, Cialdini, and Griskevicius (2008) examined informational influence in hotel services, providing information about linen usage by fellow hotel guests. However, this research has not examined more involved decisions that may have stronger conflicting desires, as is the case for financial savings or other service domains often characterized by complexity and high perceived risk (Murray and Schlacter 1990; Zeithaml 1981).

**Informational Influence and Services Decisions that Enhance Consumer Well-Being**

Consumers often change their behavior to conform to the behaviors of others (Cialdini and Goldstein 2004; Cialdini and Trost 1998). As the popular phrase “Keeping Up With the Joneses” indicates, consumers frequently engage in approval-based conformity by spending money to gain status or social approval (Chartrand and Bargh 1999; Dreze and Nunes 2009; Ordabayeva and Chandon 2011), known as normative influence (Cialdini and Goldstein 2004; Deutsch and Gerard 1955). However, accuracy-based conformity, known as *informational influence*, which occurs because consumers perceive the behaviors of other people as informative
of what is the appropriate response in a given situation, particularly under conditions of ambiguity or uncertainty (Griskevicius et al. 2006; Park and Lessig 1977), has received relatively limited attention (Goldstein, Cialdini, and Griskevicius 2008; Sheth and Parvatiyar 1995). We focus on informational influence, as it may be particularly useful in decisions like savings, where consumers can benefit from making the appropriate decision, but have inherent uncertainty about what constitutes effective behavior.

We seek to determine if informational influence can be employed to increase savings if there is high savings social information available. Given that informational influence of high savings social information may be limited due to the immediate gratification from spending (Frederick, Loewenstein, and O’Donoghue 2002; Loewenstein 1996) and normative pressures to conform to visible consumption behaviors for social approval (Bearden and Etzel 1982), we propose that open-mindedness may be needed to increase one’s tendency to incorporate new information, which may run counter to existing preferences. Therefore, we propose that adopting a deliberative mindset, which is associated with increased receptivity and open-mindedness to available information (Heckhausen and Gollwitzer 1987), will enhance the informational influence of high savings social information.

**Deliberative Mindsets**

Consumers’ goal-oriented behavior can be divided into specific action phases depending on where the individual is in the process of making a goal pursuit decision (i.e., predecisional and postdecisional phase; Gollwitzer 2011). The mindset theory of action phases (Gollwitzer 2011; Gollwitzer and Kinney 1989) has shown that the unique tasks associated with the predecisional phase (i.e., to choose among potential goals by deliberating their desirability and feasibility) lead to the activation of a cognitive procedure called *deliberative mindset*, which affects how people interpret subsequently encountered information. More than two decades of
research (for a recent review see Gollwitzer 2011) has extensively examined the distinct
cognitive features of the deliberative mindset. Though research concludes that people in a
deliberative mindset do not exhibit different levels of goal commitment, motivation, involvement,
depth of processing, or self-efficacy (see Webb and Sheeran 2008), they do tend to exhibit distinct
cognitive functioning that facilitates the unique tasks associated with the predecisional phase.

One important cognitive feature of the deliberative mindset is increased open-mindedness, which is characterized as receptivity to new information and a tendency to weigh
new evidence fairly even if it contradicts one's favored beliefs, plans, or goals (Baron 2000;
Peterson and Seligman 2004). The deliberative mindset, which is naturally activated when
consumers deliberate on potential goals in the predecisional phase or can be situationally primed
by prompting consumers to consider the pros and cons of a potential goal, results in
“receptiveness to a broad range of information that is probed in an impartial manner”
(Heckhausen and Gollwitzer 1987, p. 103). Prior research has demonstrated increased open-
mindedness in a deliberative, as compared to both neutral and implemental, mindset.
Heckhausen and Gollwitzer (1987) observed that deliberating participants demonstrated a
heightened receptivity to new information (i.e., were more capable of storing information and
had a broadened working memory span). Fujita, Gollwitzer, and Oettingen (2007) further
showed that deliberative mindset individuals remembered information incidental to an ongoing
task faster (i.e., exhibited faster recognition memory performance). As such, deliberative mindset
individuals are more open-minded to all information, even if it contrasts with existing
preferences and desires. This should include, based on our theorizing, information regarding the
high savings of others, which may conflict with existing desires to spend. Though the literature
demonstrates increased open-mindedness exhibited by individuals in a deliberative mindset, it
does not examine whether this open-mindedness influences subsequent decisions. The current
research aims to address this gap.

**The Moderating Role of Deliberative Mindsets on Informational Influence**

Drawing from the cognitive features of the deliberative mindset, we theorize that informational influence will be greater for consumers in a deliberative versus neutral mindset. One may argue that consumers should generally be open to any available information that might inform their decision-making (Bettman 1979) and informational influence should be prevalent regardless of mindset (Cialdini 2007). However, consumers often choose to discount information that does not support their pre-existing preferences (Ahluwalia 2000), such as their desire to spend rather than save (Bearden and Etzel 1982; Frederick, Loewenstein, and O’Donoghue 2002; Loewenstein 1996). Hence, informational influence of high savings information may not be as strong among consumers not in a deliberative mindset. Yet, as noted earlier, information should receive greater attention and processing when consumers are in a deliberative mindset, which is characterized by greater open-mindedness to all information for each considered goal, even information that contradicts one's favored beliefs or plans. We argue that it is the open-mindedness uniquely triggered by the deliberative mindset that increases the impact of high savings social information. In sum, we predict that:

**H1:** Deliberative mindset will enhance the informational influence of high savings social information to a greater extent than a neutral mindset.

**H2:** Deliberative mindset will enhance the informational influence of high savings social information through increased open-mindedness.

We test our predictions in four studies. Study 1 asks consumers to make a personally-relevant savings decision after reading a financial services brochure that contains subtle mindset and social information manipulations, conducting a realistic test of Hypothesis 1. Additionally, this study examines the role of open-mindedness via consumers’ self-report of open-minded thinking when making their savings decision. Study 2 provides further evidence that it is the
open-mindedness associated with the deliberative mindset that drives these effects by establishing that social information memory performance mediates the impact of the deliberative mindset prime on savings allocation for participants exposed to high savings social information. Study 3 examines the moderating role of consumer susceptibility to interpersonal influence (Bearden, Netemeyer, and Teel 1989) and provides further evidence for the proposed underlying open-mindedness process by examining the mediating role of social information-based thoughts. Finally, Study 4 replicates our effects of deliberative mindsets using savings-relevant choices involving real money and providing social information referring to dissimilar others (German consumers). This study also shows that the effects are stronger for myopically-focused consumers, who generally fail to consider the long-term implications of their actions and are more likely to focus on immediate spending desires and discount savings information.

**STUDY 1**

Study 1 seeks to provide a realistic test of our theorizing by asking consumers to make a personally relevant savings decision after reading a financial services brochure that contains subtle mindset and social information manipulations, which could be used by financial services firms. We use a diverse group of American consumers with varying socioeconomic characteristics, but all of whom currently have the option to contribute to a 401(k) or related retirement savings account (e.g., 403b, 457b) through their employer. Additionally, consistent with American consumers’ current exposure to low savings social information, we include both a low savings information condition and a control condition that contains no savings information, to provide a baseline against which to compare the deliberative mindset-induced increase in informational influence of high savings social information. We anticipate that providing low savings information will have similar effects to providing no savings information, since, as discussed earlier, consumers are already exposed to information regarding low savings and they
might draw upon it when no savings information is provided. Lastly, we test Hypothesis 2 by providing initial evidence of our proposed open-mindedness process.

**Design and Procedure**

A total of 225 adult participants from an online panel completed the study for a small payment. The study has a 3 (Social Information: High Savings, Control - No Information, Low Savings) X 2 (Mindset: Deliberative vs. Neutral) between-subjects design. All participants currently had a taxable income with an employer who is offering a tax-deferred retirement savings plans such as a 401k, 403b, or 457b. At the beginning of the survey participants indicated the annual amount they were currently saving (M = $2,271, SD = $2530; participants who did not know that information were given the opportunity to look up their current savings). Next, all participants were asked to review a brochure from a financial services firm we designed for the purposes of this study, with each participant randomly assigned to view one of six brochures, depending on condition (see Appendix). Following the brochure, participants indicated how much of their pretax income they would save in the coming year and responded to the measures of open-mindedness, control variables, manipulation checks, and demographic characteristics.

**Measures and Manipulations**

*Mindset Manipulation.* Consistent with prior research, participants were randomly assigned to either the deliberative or neutral mindset prime (Fujita, Gollwitzer, and Oettingen 2007). To increase the realism of the task, as well as the practical implications for services firms, we created a realistic savings-relevant deliberative mindset prime that financial services firms can actually use, and embedded it in the financial brochure (see Appendix; Gollwitzer and Kinney 1989; Nenkov, Inman, and Hulland 2008). Specifically, the brochure included a section titled “Deliberating on the Pros and Cons of Saving” that emphasized the importance of thinking
about the personal consequences of contributing money to a retirement plan and asked participants to take a moment to think about the pros and cons of contributing. After viewing the brochure, participants were asked to list four positive consequences of saving money and four negative consequences of not saving money and to estimate the likelihood of each consequence occurring. Participants in the neutral mindset condition did not see the mindset prime section of the brochure or list any consequences of savings. To check the effectiveness of the mindset manipulation we conducted a pretest (N = 72; 3 items assessing the distinct cognitive features of the deliberative mindset: cognitive tuning towards information relevant to making goal decisions, unbiased inferences, and open-mindedness; Gollwitzer 2011; α = .82; see Appendix for items). Results revealed that participants in the deliberative versus neutral mindset condition scored significantly higher on these items (Mdeliberative = 5.90; Mneutral = 5.36, t(70) = 2.09, p < .05), suggesting that the mindset manipulation works as intended.

Social Information. Participants in the high (low) savings social information (SI) condition saw a section in the brochure titled “Recent Study on Savings,” which provided information about a recent study on retirement savings rates that revealed that the average American consumer contributes $14,000 ($2,000) annually toward their retirement plan. The control condition also described a recent study on retirement savings rates, but did not contain a statistic regarding the savings behavior of the average American consumer (see Appendix).

Savings. After viewing the brochure information, participants were asked to consider how much of their pretax income, between $0 to $17,500, they planned to save this coming year. The upper limit represents the 2013 annual elective deferral (contribution) limit set by the federal government for employees who participate in 401(k)-type of retirement plans.

Open-mindedness. To assess the extent to which participants were open-minded when determining their savings for the coming year, we used two items from Stanovich and West’s 10-
item Flexible Thinking Scale (1997). We selected these two items because they specifically pertain to open-mindedness as they regard willingness to consider evidence contradictory to beliefs and willingness to consider alternative opinions and explanations: “When making the savings decision, I took into consideration evidence that went against my beliefs,” and “I considered new possibilities when making the savings decision” \((r = .43, p < .01; 7\text{-point Likert scale; } 1 = \text{not at all to } 7 = \text{very much so})\).

**Control variables.** We considered several control variables. In addition to prior savings,\(^4\) reported earlier, we assessed the time spent on the savings decision as an objective indicator of cognitive effort, (un)certainty about the right amount of one’s income to save; financial knowledge, and the credibility of the provided social information. See Appendix for complete items.

**Results**

**Manipulation check.** We assessed the manipulation of social information in the main study. To confirm that the $14,000 ($2,000) saving amount in the high (low) savings SI condition was perceived to be higher (lower) than participants’ perceptions about the average savings of American consumers, at the end of the study participants in the high and low savings SI condition were asked to indicate how the amount that the brochure stated the average American consumer saves ($14,000 or $2,000) compared to what they thought the average American consumer actually saves (1 = much lower; 4 = same; 7= much higher). Results of an ANOVA with SI (High Savings vs. Low Savings), mindset (Deliberative vs. Neutral), and their interaction as independent variables revealed only a main effect of SI \((F(3, 141) = 69.00, p < .001)\). Specifically, participants in the high savings SI perceived the reported savings amount to be higher than those in the low savings SI condition \((M = 5.64 \text{ vs. } 3.47, t(143) = 8.48, p < .05)\). More importantly, participants in the high SI condition perceived the reported savings amount to
be significantly greater than the scale midpoint of 4 \( t(77) = 8.77, p < .01 \); participants in the low SI condition perceived the reported savings amount to be significantly lower than the scale midpoint of 4 \( t(66) = 2.99, p < .01 \). Thus, participants perceived the high (low) savings amount to be higher (lower) than their perceptions of the average American consumers’ savings, as intended.

We also asked participants how believable they found the information in the retirement savings brochure (1=not believable, 7 = believable). Though we note that low SI ($2,000) was more believable to participants than high SI ($14,000; \( M_{\text{low}} = 5.56 \) vs. \( M_{\text{high}} = 4.91 \), \( t(143) = 2.99, p < .01 \), importantly, both the high SI and low SI savings amounts were believable to participants as both low SI and high SI means were higher than the scale midpoint of 4 (\( M_{\text{low}} = 5.56, t(77) = 12.42, p < .0001 \); \( M_{\text{high}} = 4.91, t(66) = 4.92, p < .0001 \)). Thus, the social information manipulations worked as intended.

**Savings.** Hypothesis 1 proposes that the deliberative mindset will enhance informational influence of high savings SI relative to a neutral mindset. To test this hypothesis we ran an ANCOVA on participants’ savings with SI (High Saving, Control, Low Savings), mindset (Deliberative vs. Neutral), and their interaction as independent variables, \( F(7,217) = 14.17, p < .0001 \). We controlled for the amount that participants reported they are saving prior to the study, as well as for their financial knowledge.\(^5\) Both prior savings, \( F(1,217) = 51.77, p < .001 \), and financial knowledge were significant, \( F(1,217) = 9.61, p < .01 \). Social Information was significant, \( F(2, 217) = 6.97, p < .01 \), but mindset was not significant, \( F(1, 217) = 1.32, \text{ NS} \). Importantly, as predicted, we found a significant two-way interaction between SI and mindset prime, \( F(2, 217) = 3.76, p < .05 \). SI did not have a significant impact on savings in the neutral mindset condition (\( M_{\text{high SI}} = $7,649; M_{\text{no SI}} = $7,750; t(217) = .09, \text{ NS} \); \( M_{\text{low SI}} = $5,946, t(217)=1.61, p = .11; t_{\text{low vs. no SI}}(217) = 1.80, p = .07 \). In contrast, for those primed with a
deliberative mindset, the high savings SI led to significantly higher savings as compared to the control SI condition (\(M_{\text{high SI}} = $10,686; M_{\text{no SI}} = $6,423; t(217) = 3.66, p < .01\)), as well as compared to the low SI condition (\(M_{\text{low SI}} = $6,484, t(217) = 3.43, p < .01\)). There was no difference between the low SI and control SI condition (t(217) = .05, NS). These results support Hypothesis 1 and are illustrated in Table 1.

Insert Table 1 about here

Mediated Moderation of Open-Mindedness. To test Hypothesis 2 regarding the mediating role of open-mindedness in the deliberative mindset, we examined mediated moderation of open-minded thinking using bootstrapping (Preacher, Rucker, and Hayes 2007). In the neutral mindset, SI did not have a significant impact on open-mindedness (\(M_{\text{high SI}} = 3.64; M_{\text{no SI}} = 3.69; M_{\text{low SI}} = 3.58, p’\text{s} > .50\)) and the 95% confidence interval for the conditional indirect effect of social information on savings through open-mindedness contained zero (neutral mindset: -243.77 to 253.60), not supporting mediation. In contrast, for those primed with a deliberative mindset, the high savings SI led to significantly greater open-mindedness as compared to the control SI condition (\(M_{\text{high SI}} = 4.74; M_{\text{no SI}} = 3.53; t(219) = 3.63, p < .01\)), as well as compared to the low SI condition (\(M_{\text{low SI}} = 3.80, t(219) = 2.67, p < .01\)). Consistent with this difference, the 95% CI for the conditional indirect effect of social information on savings through open-mindedness did not contain zero (deliberative mindset: -1153.37 to -16.94). Thus, in support of Hypothesis 2, we conclude that open-minded thinking mediated the effect of social information under a deliberative mindset, but not under a neutral mindset.

Discussion

Study 1 provides evidence that high savings social information can lead to increased savings in a realistic savings decision of actual employees who have the opportunity to contribute to a tax-deferred retirement savings plan. Importantly, the effect only occurred for
high (and not low) savings social information considered in a deliberative mindset, supporting Hypothesis 1. These results suggest that the open-mindedness of the deliberative mindset may significantly increase informational influence that would otherwise be limited when consumers have desires to behave otherwise (i.e., to spend rather than save). That is, consumers faced with low savings social information, which is consistent with their current desires to spend and presents fewer conflicts, are less influenced by the open-mindedness of the deliberative mindset. Indeed, self-reported open-minded thinking mediated the effect of social information on savings under a deliberative mindset, supporting Hypothesis 2.

Notably, for participants in the neutral mindset condition providing low savings information resulted in marginally lower savings as compared to providing no savings information. These results suggest that unless consumers are in a deliberative mindset, they may be susceptible to informational influence from the low savings SI prevalent in the media. Because saving less money is “easy” and does not conflict with spending desires, the open-mindedness of a deliberative mindset is not needed for informational influence to occur. We conclude that the deliberative mindset is effective when consumers need to be open-minded to the social information (i.e., high savings social information, which conflicts with spending desires). Since the current research is concerned with methods for increasing, rather than decreasing, consumer savings, we focus on the effects of high savings social information in subsequent studies.

**STUDY 2**

Study 2 seeks to replicate the results of Study 1 with two key differences. First, to enhance internal validity, in the studies that follow we employ the traditional mindset priming manipulations that have been extensively used in the literature for more than two decades (e.g., Gollwitzer and Kinney 1989). Second, we utilize a different operationalization of open-
mindedness to provide additional support for Hypothesis 2. Greater open-mindedness is linked to higher processing speed of available information (i.e., faster recognition memory performance; Fujita, Gollwitzer, and Oettingen 2007), so that the open-mindedness of the deliberative mindset should be evidenced through faster response times when recalling social information to which consumers were exposed. Following this past research, we study both memory speed and recall accuracy of social information to provide an additional test of the role of open-mindedness. Consistent with Study 1, this study presents the high savings social information via a financial brochure on 401(k) contributions and tests this realistic presentation on a diverse group of American consumers with varying socioeconomic characteristics.

**Design and Procedure**

American consumers from an online panel6 (N = 318) received a small payment for participation in an online experiment on decision making. The study has a 2 (Social Information: High Savings vs. Control - No Information) X 2 (Mindset: Deliberative vs. Neutral) between-subjects design. Participants were informed they would be participating in two short studies – one containing a decision making exercise and one containing a financial decision scenario. First respondents completed the mindset prime. Then, participants were directed to a second unrelated study where they were asked to make a decision about participating in a 401(k) plan. They were presented with a financial brochure, which contained general facts about 401(k) plans as well as social information regarding consumers’ retirement contributions. After reading this information, participants were asked to imagine they had the opportunity to participate in a 401(k) plan being offered by their employer and indicated how much money they would like to contribute to the plan. Finally, we collected open-mindedness measures based on memory performance, and demographic information (age, gender, income, education, accumulated retirement savings to date, socioeconomic status, employment status, current 401(k) participation), as well as financial
knowledge, to use as control variables.

**Measures and Manipulations**

*Mindset Manipulation.* Participants were randomly assigned to either the deliberative or neutral mindset prime. We employed standard mindset prime manipulations (e.g., Gollwitzer and Kinney 1989). The deliberative mindset prime asked participants to choose an unresolved personal problem of present concern, list the positive and negative consequences of pursuing or not pursuing this problem, and assess the likelihood that each of these consequences will occur (for a detailed description of the manipulation see e.g., Gollwitzer and Kinney 1989). The neutral mindset prime entailed describing one’s typical daily morning and afternoon activities (e.g., Garg, Inman, and Mittal 2005). A pretest (N = 58; manipulation check items from Study 1; \( \alpha = .79 \)) confirmed that, as expected, participants in the deliberative (vs. neutral) mindset condition scored higher on the mindset manipulation check (\( M = 5.62 \) vs. \( M = 4.88 \); \( t(56) = 3.04, p < .01 \)).

*Social Information.* Participants were presented with a financial brochure that contained general information about 401(k) plans (e.g., defined contribution retirement plans offered by a company to its employees; maximum amount you are allowed to contribute is $16,500, which represents the 2011 annual elective deferral (contribution) limit set by the federal government; money you put into a 401(k) is not taxed by the federal government until you take it out at retirement and would be matched by your employer at 100%). Participants then read the following information, based on their condition:

*A recent study by the Employee Benefits Institute examined retirement saving rates for consumers in the USA. The report revealed that retirement savings of Americans have gone up recently and are now quite high. Specifically, the average American consumer now contributes $14,000 annually towards their retirement plan. (In the no SI condition the prior two sentences were replaced with the following: The report revealed that, compared to recommendations about the amount of savings one needs for retirement and other large expenses during one’s life, some respondents' savings were on track, while others were not).*
Retirement Savings Allocation. Savings were measured by asking participants to indicate how much money between $0 and $16,500 they would like to contribute to their 401(k) plan.

Open-Mindedness. To provide a different assessment of open-mindedness as the mechanism underlying the effect of the deliberative mindset, we follow Fujita, Gollwitzer, and Oettingen (2007), who used memory performance as an indicator of open-mindedness. We measured SI memory performance in two ways – via recall accuracy and recall response latencies. We asked participants to think back to the information they read earlier, about how much the average American consumer contributes to their retirement plan and indicate that amount. The online survey was set up to measure recall response latencies. To measure recall accuracy we calculated whether participants indicated the right amount of $14,000 (1) or not (0).

Results

Retirement savings allocations. To test Hypothesis 1, we conducted an ANOVA on participants’ retirement saving allocations, which included the main effects of SI (High Savings vs. Control) and Mindset (Deliberative vs. Neutral) as well as the two-way interaction between these two factors $F(3, 314) = 2.61, p = .05$. The main effect for the SI was significant $F(1, 314) = 3.83, p < .05$, but the mindset effect was not $F(1, 314) = .95$, NS. Importantly, a significant two-way interaction between the SI and mindset conditions emerged $F(1, 314) = 4.48, p < .05$. Further examination revealed that the high savings SI did not have a significant impact on retirement saving allocations in the neutral mindset condition ($M_{\text{high SI}} = $8,560; $M_{\text{no SI}} = $8,667; $t(316) = -.12$, NS). In contrast, when a deliberative mindset was primed, providing high savings SI lead to significantly higher retirement saving allocations as compared to the no SI condition ($M_{\text{high SI}} = $10,760; $M_{\text{no SI}} = $7,860; $t(316) = 2.63, p < .01$). These results fully support Hypothesis 1 and are illustrated in Table 1.

Open-Mindedness. To further test Hypothesis 2, we examine participants’ social
information memory performance to determine whether SI recall accuracy and response latency differ across mindset conditions and whether they mediate the effect of the deliberative mindset on retirement savings allocations. Since there was no SI information in the control SI condition (and therefore no possibility of recalling it), we focus exclusively on participants in the high saving SI condition (n = 161). We conducted a log transformation on the recall response latency variable and ran an ANOVA on the log transformed variable with mindset condition as the independent variable. Results revealed a marginally significant main effect of mindset condition $F(3, 157) = 3.43, p < .06$. Specifically, participants in the deliberative mindset condition recalled the SI significantly faster than those in the neutral mindset condition (8.30 seconds vs. 10.43 seconds, respectively, $t(159) = 2.07, p < .05$). However, bootstrapping (Preacher and Hayes 2004) did not support mediation for response latency, since zero was included in the confidence interval (95% CI: -.07 to .78).

We then ran an ANOVA on accurate recall of the SI, with mindset as the independent variable. Results revealed a significant main effect of mindset condition $F(3, 157) = 4.97, p < .05$. As expected, a greater percentage of participants in the deliberative mindset recalled the correct SI as compared to those in the neutral mindset (79% vs. 62%, respectively, $t(159) = 2.23, p < .05$). Bootstrapping results revealed that recall accuracy mediates the effect of deliberative mindset on savings allocation (95% CI: .04 to 1.15). These results support Hypothesis 2 and provide additional insight into the process through which deliberative mindsets enhance informational influence on savings.\(^9\)

**Discussion**

These results provide additional evidence that, due to its open-mindedness, the deliberative mindset increases the effects of informational influence on consumers’ savings allocations. Hypothesis 2 is supported by consumers in the deliberative mindset exhibiting faster
recall and greater accuracy of high savings social information. Next, we provide further process evidence by examining whether the effect of the deliberative mindset enhancing high savings informational influence is attenuated for consumers who are naturally open to social information.

**STUDY 3**

The purpose of this study is two-fold. First, we provide further evidence for our proposed underlying open-mindedness process. Prior research has linked open-mindedness to enhanced capacity to process available information (i.e., broader working memory span; Heckhausen and Gollwitzer 1987), which suggests that deliberative mindset participants should have a greater number of social information-based thoughts regarding the provided social information. Following this past research, we study spontaneous thought streams to provide an additional test of the role of open-mindedness.

Second, we examine the moderating role of consumer susceptibility to interpersonal influence, which allows us to test our proposed process through moderation rather than measured mediation alone (Spencer, Zanna, and Fong 2005). If priming a deliberative mindset increases the impact of informational influence on savings due to greater open-mindedness to social information, then the extent to which consumers naturally differ in their open-mindedness to such interpersonal information should influence the impact of the deliberative mindset on their reaction to high savings social information. To examine this, we employ Bearden, Netemeyer, and Teel’s (1989) consumer susceptibility to interpersonal influence scale (hereafter, CSII), which has been found to impact robust consumer phenomena including investment transactions (Hoffman and Broekhuizen 2009). We focus specifically on the second dimension of the CSII, which captures susceptibility to informational influence. We theorize that the informational dimension of CSII will moderate the impact of the deliberative mindset on the effect of informational influence. Specifically, we propose that the effect of the deliberative mindset on
informational influence will be attenuated for individuals who are highly susceptible to interpersonal informational influence (higher informational CSII), since these individuals are likely to be open-minded to social information regardless of their mindset. In contrast, the deliberative mindset should enhance open-mindedness to social information for consumers who would otherwise not be susceptible to this type of information (lower informational CSII). Thus,

**H3:** The effect of deliberative mindset on informational influence of high savings social information will be weaker for individuals high (vs. low) in informational CSII.

**Design and Procedure**

A total of 190 undergraduate students (42% female) participated in a 2 (Social Information: High Savings vs. Control - No Information) X 2 (Mindset: Deliberative vs. Neutral) between-subjects design study, with informational CSII measured as a continuous individual difference variable. Upon arrival at the behavioral laboratory, participants were informed they would be participating in a variety of short studies. First, respondents read a scenario about an internship and were asked to make initial savings allocations; that is, to allocate a portion of their internship income to savings. Respondents then completed the mindset prime. Next, participants received information regarding the average college student savings in the high saving SI condition (no information in the control SI condition) and were asked to make final savings allocations and indicate any thoughts they had regarding their savings allocation. This design allows us to examine the effect of high saving SI after an initial savings decision has already been made. Lastly, participants completed the CSII scale and control and demographic measures.

**Measures and Manipulations**

*Initial Savings Allocation.* First, participants imagined they had a summer internship with a salary of $2,000 per month after taxes. They were told to assume they would not get additional money from their parents and had decided to make a monthly budget. After budgeting for rent and
utilities, car and insurance payments, cell phone bills, and groceries, they were told they would have $550 remaining each month to use for other things such as savings, clothing, and entertainment. Then, participants indicated how much of the remaining $550 they would save. The average initial savings allocation was $213.24 (SD = $93.05), which is included as a control variable.

Mindset Manipulation. Next, participants completed either the deliberative or neutral mindset prime. Deliberative mindset prime was the same as Study 2, except that the prime was relevant to the decision task (savings) and asked participants to consider the positive and negative outcomes of saving money (Nenkov, Inman, and Hulland 2008). The neutral mindset prime was identical to Study 2. A pretest (N = 49; manipulation check items from prior studies: $\alpha = .83$) confirmed that, as expected, participants in the deliberative (vs. neutral) mindset condition scored higher on the mindset manipulation check ($M = 5.53$ vs. $M = 4.87$, $t(47) = 1.98$, $p = .05$).

Social Information. After completing the mindset prime, participants in the high saving SI condition read a newspaper article. The article described the spending and saving behavior of 1,000 college interns with salaries similar to their summer internship salary. The article stated that the average amount college students saved was $450 per month. Participants in the control SI condition proceeded directly to the final savings allocation task.

Final Savings Allocation. After reading the newspaper article, participants re-evaluated their budget and allocated a portion of their remaining $550 to savings, which was our dependent variable.

Open-Mindedness. Immediately after reporting their final savings allocation, we collected thought protocols where participants explained their final savings allocation. Two student workers, unaware of the hypotheses, coded participants’ thoughts as either mentioning the social information (1) or not mentioning the social information (0). Correlation between raters was $r =$
Discrepancies were resolved by discussion. Examples of social information-based thoughts are: “It makes me feel bad that I intended to spend more than average college interns” and “If everyone else is saving a lot more ($450), then they won't have as much money to go out either, so I might as well save more too.”

*Consumer Susceptibility to Interpersonal Influence (CSII).* We measured Bearden, Netemeyer, and Teel’s (1989) CSII scale. The four items for the informational dimension were averaged to create a score (α = .72). Responses were measured on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree).

**Results**

*Final Savings Allocation.* To test Hypothesis 3, we conducted an ANCOVA on savings allocations with SI (High Savings vs. Control), Mindset (Deliberative vs. Neutral), CSII, and all two-way and the three-way interaction as independent variables and initial savings allocation as a covariate. The effects of SI, $F(1, 181) = 12.62, p < .01$, and initial savings allocation were significant $F(1, 181) = 250.95, p < .01$. There were also significant two-way interactions between SI and deliberative mindset, $F(1, 181) = 4.83, p < .05$, and SI and CSII, $F(1, 181) = 8.49, p < .05$. Importantly, the three-way interaction was also significant $F(1, 181) = 4.31, p < .05$. To examine the pattern of the interaction, we examined the two-way interaction at high and low levels of CSII (+/-1SD; Aiken and West 1991). When CSII was low, the two-way interaction of SI and mindset was significant, $F(1, 181) = 8.91, p < .01$. Specifically, when participants were in a deliberative mindset, the effect of SI was significant, $F(1,181) = 12.96, p < .01$. In contrast, when participants were in a neutral mindset, high savings SI did not influence savings, $F(1,181) = .99$, NS. When CSII was high, the two-way interaction of SI and mindset was not significant, $F(1, 181) = 0.01$, NS, such that SI increased savings regardless of mindset. These results fully support Hypothesis 3 and are illustrated in Figure 1 and Table 1.
Mediated Moderation of Open-Mindedness. To test Hypothesis 2, we examine participants’ thought protocols regarding the social information. Since there was no social information in the control condition (and therefore no possibility of thinking about it), we focus exclusively on participants in the high saving SI condition. We examined mediated moderation of social information-based thoughts using bootstrapping (Preacher, Rucker, and Hayes 2007). When CSII was low (-1 SD) or average, the 95% confidence interval for the conditional indirect effect of deliberative mindset on savings allocation did not contain zero (low CSII: 1.65 to 37.94; average CSII: 1.14 to 27.09). In contrast, when CSII was high (+1SD), the 95% CI for the conditional indirect effect of deliberative mindset on savings allocation contained zero (high CSII: -2.94 to 23.98). Thus, in support of mediated moderation, we conclude that social information-based thoughts mediated the effect of mindset when CSII was low or average, but not when CSII was high, since these participants naturally considered the social information.

Discussion

This study extends our findings to internship income savings rather than retirement savings, replicating our effects for savings decisions that are relatively short-term, such as saving a percentage of one’s paycheck for unexpected expenses. Furthermore, the role of deliberative mindset on conformity to high saving social information is greater for those with low CSII, who do not naturally tend to incorporate information from others in their decisions. Additional support for Hypothesis 2 is evidenced by low CSII consumers in a deliberative mindset listing more thoughts regarding the high saving social information, which mediated the effect of mindset, increasing savings allocations. Thus, it is the increased open-minded consideration of social information, and not just increased attention to this information, that is increasing savings.

STUDY 4
Study 4 demonstrates that the effect of a deliberative mindset on the impact of high savings social information extends to consumers’ savings-relevant choices involving real money, using a different measure of savings – temporal discounting, the intertemporal tradeoff between a later-larger reward and a sooner-smaller reward. Many service decisions involve a choice between sequences of events occurring at different points in time (Hansen and Danaher 1999; Verhoef, Antonides, and de Hoog 2004). For example, when joining a gym, consumers must decide whether to make small monthly membership payments ($30) amounting to a higher annual cost at the end of the year ($360) or pay one larger lump sum immediately for a lower total cost ($300). More importantly, when deciding when to start drawing on Social Security retirement benefits, a worker can choose to retire earlier (as early as age 62) and receive up to 30% smaller benefits or retire later (e.g., at age 70) and receive much larger benefits. As such, it is important to understand consumers’ decisions in service contexts that offer the choice between incurring an immediate cost for immediate benefits or foregoing an immediate benefit in order to receive a larger reward in the future (i.e., temporal discounting).

In addition, this study shows that the uncovered effects of deliberative mindsets occur even for social information regarding dissimilar others. Though prior research has demonstrated that social influence is stronger for information regarding similar rather than dissimilar others (e.g., Burnkrant and Cousineau 1975; Goldstein, Cialdini, and Griskevicius 2008; Moschis 1976), if this is the case, the effects demonstrated in our previous studies may have limited practical implications. However, we argue that the open-mindedness that is characteristic of the deliberative mindset will enhance the influence of social information even when the information regards dissimilar others. When in a deliberative mindset, consumers should be open to any information that might potentially inform their decision-making and be careful not to discount information prematurely as it may ultimately be useful in making good decisions (Fujita,
Gollwitzer, and Oettingen 2007). As such, deliberative mindsets should be associated with enhanced receptivity to all sources of information, even if they are not directly relevant to the decision maker, as is the case for social information about dissimilar others. Identifying the deliberative mindset as a factor enhancing the impact of social information about dissimilar others not only contributes to the social influence literature, but also has important implications for financial services firms and policy makers seeking to employ this method to increase consumers’ savings or promote other beneficial service behaviors by providing information regarding consumers from other countries or different demographic backgrounds.

Importantly, this study also establishes that the uncovered positive effects of deliberative mindsets on the impact of high savings social information are stronger for myopically-focused (vs. farsighted) individuals. Consumers with a myopic focus tend to focus on the immediate implications of their behavior (e.g., enjoyment from spending money) rather than long-term consequences (e.g., accumulating savings; Strathman et al. 1994). We assess the extent to which consumers differ in their tendency to focus on the immediate rather than future consequences of their behavior by employing the CFC-Immediate scale (hereafter, CFC-I; Joireman et al. 2008; Strathman et al. 1994). Recent research has revealed that consumers with a greater immediate consequences focus (i.e., CFC-I) exhibit lower levels of trait self-control and tend to engage in more temporal discounting (i.e., tend to prefer smaller, immediate rewards relative to larger, delayed rewards; Joireman et al. 2008). Indeed, remaining myopically focused on the present is one of the most common reasons why consumers fail in self-control and find themselves acting counter to their future goals (Baumeister 2002). Since myopic consumers are focused on the immediate implications of their behavior, they should be most likely to discount high savings information. Thus, we theorize that these consumers will be more strongly influenced by high savings social information in a deliberative mindset because they will only be open to
considering the benefits of saving for the future when they experience the open-mindedness of the deliberative mindset. In contrast, farsighted consumers, who tend to have higher self-control (Joireman et al. 2008), may naturally save regardless of social information and mindset. Thus:

$H_4$: CFC-I will moderate the effect of deliberative mindset and high savings social information on savings. Specifically, the effect of the deliberative mindset on the informational influence of high savings social information will be stronger for individuals higher in CFC-I.

Design and Procedure

A total of 92 American undergraduate students (44% female) completed the study for course credit. The study is a 2 (Social Information: High Savings vs. Control - No Information) X 2 (Mindset: Deliberative vs. Neutral) between-subjects design with CFC-I measured as a continuous individual difference variable. Upon arrival at the behavioral laboratory, participants were informed they would participate in a variety of short studies. Respondents then completed the mindset prime. Following the mindset manipulation, participants were informed they would have a chance to win a gift card for their research participation. For the gift card lottery, participants were given a choice between a small gift card ($50) that they would receive immediately versus a larger, delayed gift card ($75), which they can receive at the end of the semester. This served as the dependent variable. Participants received social information regarding what German college students preferred. After reading this information, participants indicated their gift card choice. Next, participants completed the Consideration of Future Consequences scale (Strathman et al. 1994) and were debriefed. One participant was randomly selected to receive their gift card choice.

Measures and Manipulations

Mindset Manipulation. The deliberative and neutral mindset manipulations were the same as those used in Study 2.
Social Information. Participants in the high savings information condition were given the following information: “In a recent study conducted by a co-researcher in Germany, 90% of the German college students preferred to wait until the end of the semester to receive a larger amount gift card.” Participants in the control saving information condition did not receive any information regarding gift card choice.

Temporal Discounting. We used temporal discounting as a measure of savings. An intertemporal tradeoff between a later-larger reward and a sooner-smaller reward is a particularly appropriate context in which to capture consumers’ actual savings preferences since such tradeoffs have been widely applied as a model of self-control conflict between near-sighted (e.g., spending) and far-sighted (e.g., saving) goals (Bartels and Urminsky 2011; Frederick, Loewenstein, and O’Donoghue 2002). Specifically, participants were asked to choose either a $50 gift card next week or a $75 gift card at the end of the semester if they won the lottery. Gift card choice served as the dependent variable, with choice of the larger delayed gift card indicating greater preference for savings. Participants were informed that their choice would not influence whether they won, as the winning survey number would be drawn without looking at respondents’ choices. As such, the choice is incentive compatible and should reflect real preferences for delaying gratification to obtain a larger financial reward later, consistent with the nature of saving money.

Consideration of Future Consequences-Immediate (CFC-I). We measured the seven items in the CFC-I scale on a 7-point scale (1 = extremely uncharacteristic to 7 = extremely characteristic; Joireman et al. 2008), and averaged them to create a score (α = .84).

Results

Gift Card Choice. To test Hypothesis 4, we conducted a logistic regression on gift card choice, with Mindset (Deliberative vs. Neutral), Social Information (High vs. Control-No
Information), CFC-I (measured as a continuous variable), and the two-way and three-way interactions between them as independent variables. The results show a significant effect of CFC-I on gift card choice ($b = -.61$, Wald $\chi^2(1) = 4.03, p < .05$) such that as CFC-I increased individuals were less likely to choose the larger delayed gift card. We find the two-way interaction of mindset and SI is marginally significant ($b = -2.01$, Wald $\chi^2(1) = 3.03, p < .08$). More importantly, the three-way interaction is significant ($b = .62$, Wald $\chi^2(1) = 4.19, p < .05$; see Figure 2). Further analysis examined the pattern of the three-way interaction. We assessed the two-way interaction of mindset and SI at high and low levels of CFC-I (+/-1 SD). When CFC-I was low (i.e., among farsighted consumers), the two-way interaction was not significant ($b = -.38$, Wald $\chi^2(1) = .92$, NS). This finding suggests that farsighted consumers do not need a deliberative mindset and high savings social information to engage in high savings since they naturally consider future consequences and are more likely to save. In contrast, when CFC-I was high (i.e., among myopic consumers), the two-way interaction was significant ($b = .74$, Wald $\chi^2(1) = 4.82, p < .05$). Specifically, when participants were in a neutral mindset, there was no effect of social information on gift card choice ($b = -.82$, Wald $\chi^2(1) = 1.93$, NS). In contrast, when participants were in a deliberative mindset, high savings information increased the likelihood of choosing the larger, delayed gift card ($b = 1.01$, Wald $\chi^2(1) = 3.66, p < .05$). This pattern of results, illustrated in Figure 2, is consistent with Hypothesis 4, which asserts that the effects of the deliberative mindset on the informational influence of high savings social information is stronger for myopically-focused consumers, who are otherwise likely to discount savings information due to their focus on immediate consequences.

Discussion

This study extends the effect of the deliberative mindset on enhancing the impact of high
savings social information to information regarding dissimilar others. Moreover, the results are found for actual savings behavior, examined through temporal discounting (an operationalization of savings preferences that entails an intertemporal tradeoff between a later-larger reward and a sooner-smaller reward, a conflict that lies at the heart of savings and many other well-being enhancing decisions). Thus, the uncovered effects of deliberative mindsets on the impact of high savings social information are consequential as they impact consumers’ savings choices that entail real money. In addition, this study shows that this effect is stronger for consumers who have a chronic tendency to consider the immediate rather than delayed consequences of their decisions. This finding is significant as it suggests that the deliberative mindset has the potential to help myopically-focused consumers, who otherwise may find it more difficult to save money.

**GENERAL DISCUSSION**

Online environments and new media provide many opportunities for service customers to observe and learn about the behaviors of others (Libai et al. 2010), a trend that calls for a better understanding of the role of social, and specifically, informational influence in the service domain. Merging extant literature in social influence and action phase mindsets, the current research theorizes that the open-mindedness associated with the deliberative mindset can increase the impact of informational influence on service decisions that enhance consumer well-being. In four studies, we provide consistent and robust support for this framework in the context of consumer savings, including both short- and long-term savings decisions, when presenting the social information in various ways (e.g., a financial brochure, a newspaper article), when using both hypothetical savings and real choices, and different deliberative mindset priming procedures (general and issue-specific situational primes), as well as when providing social information regarding both similar and dissimilar others. Current findings show that the deliberative mindset attenuated the need for source similarity for informational influence, since the influence of social
information was enhanced under the open-mindedness of the deliberative mindset regardless of whether the high savings information pertained to dissimilar or similar others. Moreover, the underlying process of increased open-mindedness in a deliberative mindset is supported using several different measures drawn from past literature—self-report of open-minded thinking, recognition memory speed and accuracy, and spontaneous thought streams. Furthermore, the effect of the deliberative mindset on informational influence is: 1) attenuated for individuals who are highly susceptible to informational social influence, since these individuals are open to social information regardless of their mindset, and 2) stronger for myopic (vs. farsighted) consumers, who are the most likely to discount savings information.

*Theoretical contributions.* Taken together, these findings make several important theoretical contributions. Though research has long recognized the significant effects of social information (Cialdini and Goldstein 2004; Cialdini and Trost 1998), informational influence has received relatively limited attention (Goldstein, Cialdini, and Griskevicius 2008; Sheth and Parvatiyar 1995). This research contributes to the service literature by identifying the potential of informational influence to help service firms encourage beneficial decisions (i.e., savings) for which informational influence might not otherwise occur because of conflicting desires (i.e., spend vs. save).

Additionally, the current research contributes to the mindset theory of action phases (Gollwitzer 2011) by extending the literature on the deliberative mindset beyond the analysis of its cognitive features to examine its effects on informational influence, a variable that has not been related to deliberation before. In doing so, we contribute to an emerging stream of research studying the effects of action phase mindsets on behavior (Chandran and Morwitz 2005; Cheema and Patrick 2008; Dhar, Huber, and Khan 2007). Though we compare the effects of the deliberative mindset to a neutral mindset, we verified that the demonstrated effect was robust.
when comparing deliberative and implemental mindsets, which is consistent with prior research indicating that open-mindedness is uniquely characteristic of the deliberative mindset (vs. both neutral and implemental mindset; Fujita, Gollwitzer, and Oettingen 2007).

The current research also enhances our understanding of a well-established moderator of social influence, namely source similarity. Past research has extensively shown that social influence is greater for the behavior of similar versus dissimilar others (e.g., Burnkrant and Cousineau 1975; Moschis 1976). We demonstrate that the deliberative mindset allows for enhanced influence of social information regardless of source similarity. This finding is particularly important given that prevalent negative trends in developed countries (e.g., overspending, overeating, excessive energy consumption) might be reinforced by the behavior of similar others. Moreover, the role of the deliberative mindset in attenuating source similarity effects may be particularly important in service contexts. Research has found that consumers respond more positively to similar service agents (Aksoy, Bloom, Lurie, and Cooil 2006; Boshoff 2012), but the open-mindedness associated with the deliberative mindset could overcome differences when similarity between the service agent and customer is not feasible. This possibility is an important area for future service research to explore.

Implications for service providers. The current research also offers practical implications for financial services firms providing retirement plans such as 401(k)’s or IRA’s and more generally for service firms in other domains mentioned earlier where beneficial decisions that can be guided by service firms’ programs and offerings have the potential to improve consumer well-being, but conflict with consumer desires. For example, when new employees sign up for a 401(k) retirement plan, they are likely both hesitant to increase savings due to spending desires and uncertain of what constitutes an appropriate allocation. This uncertainty increases the opportunity for informational influence. According to our results, if financial services firm or
human resource materials informed consumers or employees of the average savings rate for a select group of individuals with a higher savings rate (e.g., consumers with higher income or from other countries, or employees of higher rank or longer job tenure), service customers would be likely to increase their savings in these retirement programs. Since our results are robust to situations where individuals have already established an initial savings decision (participants already had a 401(k) plan in Study 1 and made initial savings allocations in Study 3), firms could also leverage customer data to identify and contact individuals who are already enrolled but have below-average savings rates. Providing these individuals with high savings social information may spur them to increase their contributions.

Though we focused on savings and information from financial services firms, these results should hold for other service contexts, particularly when consumers have preexisting preferences and desires that are in conflict with the prevalent social information (e.g., exercise, healthcare, weight loss, debt management, energy consumption). For example, health insurance companies and healthcare providers in the US have started to implement numerous programs aimed at encouraging healthier lifestyles (e.g., Blue Cross Blue Shield; Wellness Profiles and Wellness Rewards; Harvard Pilgrim Heath Care). Such programs should be beneficial for consumers, based on improved health and well-being, and for the companies, based on a reduction in healthcare costs. However, even with such program offerings, consumers may still have conflicting desires of unhealthy eating and little time for exercise and uncertainty regarding just what and how much of the recommended behaviors are necessary. Programs offered by these service organizations could utilize social information from groups of ideal health and, with the elicitation of a deliberative mindset, consumers may be more open to the information these service firms provide, and be more likely to adapt their behavior in a beneficial way.

Establishing that the deliberative mindset, which is naturally activated when consumers
are making a decision and deliberating between potential goals, has the potential to enhance the informational influence of social information regarding others’ beneficial decisions, is particularly valuable as it provides managers and public policy makers with the opportunity to influence consumers who are in the process of making a decision, such as contributing to a 401(k) retirement plan or participating in a weight loss program. Beyond that, however, to ensure the effect of beneficial social information, a deliberative mindset could be activated prior to the presentation of any social information via an external intervention that asks consumers to deliberate on the pros and cons of a decision. Such mindset prime could be embedded in informational brochures as we did in Studies 1 and 3 or could occur during one-on-one discussions with financial, healthcare, or other service advisors. Moreover, with the increased use of interactive web services by service companies, the mindset prime and social information could be incorporated into interactive online customer materials, smartphone applications, and social networking sites. Deliberative mindsets might also be primed by incorporating a list of pros and cons into customer information rather than requiring individuals to generate this list themselves. By employing these methods for activating a deliberative mindset, service companies can be champions of beneficial behaviors, like saving, benefitting individual consumers, as well as service companies and the economy as a whole.

*Implications for public policy makers.* Both government and independent agencies are concerned with the low savings rates and have attempted to educate consumers to change these trends. Yet, many such attempts at educating consumers have largely been futile (The Wall Street Journal 2010). We propose that an alternative strategy may be to remedy the current widespread availability of low savings social information with high savings information. Public consumer agencies could leverage the upward trend in saving rates prompted by the financial crisis (The Economist 2010) in attempts to incorporate high savings social information into
campaigns. For example, a campaign tagline of “Who’s Saving More? The Average American is Saving More Than You Know” could motivate consumers to increase their savings. Coupling such social information campaigns with a deliberative mindset prime (e.g., “Before you decide, think about where you want to be in 10 years”) is likely to further enhance consumer savings.

Since our results revealed that the deliberative mindset promotes conformity to high savings information regarding dissimilar others, another possibility is to leverage information about the beneficial service behaviors in other cultures and nationalities. For example, financial services firms could provide high savings information about consumers in countries, which are historically characterized with higher savings rates than the United States (e.g., Germany or France; OECD 2013), a practice that is not common at present (American consumers [n=46; see footnote 1] reported rarely encountering information about how much consumers in other countries are saving, $M = 2.28$; 1=never; 7=everyday). Also, to encourage healthier lifestyles, healthcare providers could provide information about consumers in some of the world’s healthiest countries, like Singapore or Australia (Bloomberg.com 2012).

*Implications for consumers.* The financial crisis has increased the focus of both researchers and practitioners on improving consumer financial health and well-being (Hansen 2012). By providing ways for service firms to employ informational influence to encourage beneficial service decisions, this research offers important implications for improving not only consumers’ financial well-being (e.g., Guo et al. 2013), but also their overall quality of life in terms of happiness and life satisfaction (e.g., Dagger and Sweeney 2006). As discussed earlier, current trends of low savings, overextensions of credit, and overall failure to adequately plan for one’s financial future have severe negative outcomes like bankruptcies, foreclosures, and a widespread inability to ensure secure and timely retirement. The financial stress associated with a lack of savings may also have substantial negative effects on consumers’ psychological state
given the established relationship between financial events and depression (Kendler and Karkowski-Shuman 1997). Moreover, current trends of overeating and unhealthy food choices (The New York Times 2013) have dangerous consequences for consumers’ psychological, physical, emotional, and social food-related well-being (Block et al. 2011). Devising ways to promote higher savings or healthier lifestyles by informing consumers of the higher savings or healthier choices of others, both similar and dissimilar consumers, could serve as an important tool to reverse some of these negative outcomes.

Some service domains like financial or healthcare services, which require consumers to have the expertise and knowledge to make rather complex decisions, can put some consumers at a disadvantage (Anderson 2010). The effects uncovered in the current research have the potential to be especially useful for myopically-focused consumers, who are more likely to focus on immediate desires and discount beneficial savings or health information without the open-mindedness associated with a deliberative mindset.

*Future research.* Due to our focus on beneficial service decisions and to gain insight into an actionable positive savings intervention, we focused mainly on high savings social information in the current research since decreasing savings by offering low savings social information would not be beneficial for consumers. However, we had a low savings information condition in Study 1, which revealed that the effect of this low savings social information is independent of mindset. We believe this null effect of mindset for low savings information is consistent with our theorizing. We argue that for behaviors that are attractive in the present, but less beneficial in the long run (e.g., spending money, eating dessert, foregoing exercising or preventative healthcare visits, consuming energy, smoking, or procrastinating), the open-mindedness of the deliberative mindset will not significantly increase informational influence. In other words, since low savings social information is not in conflict with current spending desires,
consumers’ behaviors are not altered by the open-mindedness of the deliberative mindset. Future research should further explore the extent to which conflicting desires need to be present for the effect of a deliberative mindset to occur.

In conclusion, we demonstrate that the deliberative mindset enhances informational influence, thereby increasing beneficial decisions that are often guided by consumers’ interaction with service firms and service offerings (i.e., savings). Though consumers tend to easily adjust their behavior based on normative influence (i.e., “Keeping Up with the Joneses”), financial services providers and public policy officials need to consider the impact of informational influence on consumers’ financial decisions, leading to “Saving Like the Joneses.”
Endnotes

1. Pretest participants were 46 adults (online panel; 43% female; M\text{age} = 34.1; M\text{income} = $40,000), who responded to the question: “From the information you have encountered in the media, what do you infer about the savings rates of Americans?”; 1 = too low; 4 = just right; 7 = too high. The average of 2.11 was significantly below the scale midpoint of 4 ($p < .01$), indicating that based on media information, consumers perceive Americans’ savings as too low.

2. We are not suggesting that consumers are uncertain whether saving more money, spending less money, exercising more, or consuming fewer calories are effective behaviors. Rather, we suggest that consumers are uncertain of the appropriate amount of these behaviors necessary to achieve their goals, while remaining realistic (i.e., how much should they save, while still being able to consume what is desirable; how much calorie reduction is needed to lose weight, without being constantly hungry).

3. Sample had varying socioeconomic characteristics: 45% female; M\text{age} = 34, age range: 18-63; M\text{pre-tax income} = $40,884; 73% have at least some college education; 32% identified themselves as lower or lower-middle class, 47% as middle class, and 11% as upper or upper-middle class.

4. We did not use a difference score of post—prior savings as our dependent variable given limitations of difference scores (Edwards 2001). Nonetheless, we obtain consistent results (i.e., significant two-way interaction between SI and mindset prime, $F(2, 217) = 3.75, p < .05$).

5. Additional analysis included all control variables (uncertainty, social information credibility, and time for savings decision as an objective indicator of cognitive effort), but they were not significant and the interaction remained significant ($p < .05$). None of the control variables differed significantly across the two mindset conditions ($p$’s > .10). As such, we can conclude that the effect of mindset on enhancing informational influence occurs through a process other than depth of processing or uncertainty (Webb and Sheeran 2008).

6. Sample had varying socioeconomic characteristics: 54% female; M\text{age} = 30, age range: 18-65; M\text{income} = $32,268; 37% have a 401(k) plan; 54.5% have $10,000 or less in retirement savings, 23.5% have between $11,000 and $50,000; 88% have at least some college education; 34.3% identified themselves as lower or lower-middle class, 42.6% as middle class, and 23.1% as upper-middle or upper class.

7. We conducted the same analysis with various control variables (gender, age, income, education, accumulated retirement savings, socioeconomic status, employment status, current 401(k) participation, social information credibility and financial knowledge [3 items: $\alpha = .88$]) and confirmed that the focal SI X mindset two-way interaction remained significant $F(1, 294) = 2.09, p < .05$. The degrees of freedom are lower in this analysis because of missing values on the income demographic variable.

8. We conduct the analysis using log transformed response latencies, but report untransformed recall latency means.
9. We conducted additional analyses to rule out anchoring (Tversky and Kahneman 1974) as an alternative explanation. We included two additional cells in the original study (n = 93; 62% female; M_{age}=31) with identical procedure and materials, except that instead of social information participants were only told that the Employee Benefits Institute study “Surveyed 14,000 American consumers.” If our results occurred due to anchoring on the 14,000 number, rather than conformity to the behavior of others, then a similar savings boost should be observed in these anchoring conditions as well. An ANOVA on participants’ 401(k) allocations using the combined sample (n = 411), revealed a significant two-way interaction between mindset and SI, F(2, 391) = 3.10, p < .05. Planned contrasts, presented in Table 1, revealed that a significant boost in 401(k) allocations was observed only for participants in a deliberative mindset, who were presented with high savings SI, and there was no significant increase in savings in any of the four anchoring conditions, confirming that the observed effects did not occur due to anchoring.

10. The high savings SI amount of $450 was determined by a pretest (N=48), which found that in a similar scenario our target population anticipated saving an average of $252 (SD = $128). We selected $450 as high savings SI so that the savings level would be higher than what most students currently intend to save.

11. We chose German students as the dissimilar group because German nationals are well known for high savings rates (OECD 2013). To ensure that German students are a dissimilar group, their perceived similarity was examined in a pretest (N = 56). Results revealed that participants perceived both their identity (M_{American} = 4.73; M_{German} = 3.32; t(55) = 6.58, p < .001) and their financial situation (M_{American} = 4.38; M_{German} = 3.18; t(55) = 5.44, p < .01) to be significantly more similar to that of the average American undergraduate student, as compared to that of the average German undergraduate student. These results confirm that German students are an appropriate dissimilar source.

12. Participants were randomly assigned to a deliberative, neutral, or implemental mindset using the mindset prime from Study 2. Then, they were exposed to high savings (vs. no) SI and reported retirement savings intentions. Results revealed a significant interaction between SI and mindset prime $F(2, 143) = 3.13, p < .05$. The high savings SI only increased savings in the deliberative mindset, with no differences in the neutral and implemental mindsets. These results are consistent with past research (Gollwitzer 2011; Webb and Sheeran 2008) indicating that open-mindedness is unique to the deliberative mindset and supports our use of a neutral mindset throughout these studies. Additional results are available from the authors.


Chandran, Sucharita and Vicki G. Morwitz (2005), “Effects of Participative Pricing on Consumer


Marketing Research, 13 (August), 237–44.


### TABLE 1

**SUMMARY OF RESULTS**

<table>
<thead>
<tr>
<th>Mindset</th>
<th>Deliberative Mindset</th>
<th>Neutral Mindset</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Study 1 (n = 150)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High savings SI</td>
<td>$10,686 \textsuperscript{b}</td>
<td>$7,649 \textsuperscript{a}</td>
</tr>
<tr>
<td>Control (no SI)</td>
<td>$6,423 \textsuperscript{a}</td>
<td>$7,750 \textsuperscript{a}</td>
</tr>
<tr>
<td>Low savings SI</td>
<td>$6,484 \textsuperscript{a}</td>
<td>$5,946 \textsuperscript{a}</td>
</tr>
<tr>
<td><strong>Study 2 (n = 318)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High savings SI</td>
<td>$10,760 \textsuperscript{b}</td>
<td>$8,560 \textsuperscript{a}</td>
</tr>
<tr>
<td>Control (no SI)</td>
<td>$7,860 \textsuperscript{a}</td>
<td>$8,667 \textsuperscript{a}</td>
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<tr>
<td>Anchoring number</td>
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<td>$9,000 \textsuperscript{a}</td>
</tr>
<tr>
<td><strong>Study 3 (n = 190)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>High CSII:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High savings SI</td>
<td>$148.60 \textsuperscript{b}</td>
<td>$139.04 \textsuperscript{b}</td>
</tr>
<tr>
<td>Control (no SI)</td>
<td>$56.56 \textsuperscript{a}</td>
<td>$48.21 \textsuperscript{a}</td>
</tr>
<tr>
<td><strong>Low CSII:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High savings SI</td>
<td>$133.82 \textsuperscript{b}</td>
<td>$62.44 \textsuperscript{a}</td>
</tr>
<tr>
<td>Control (no SI)</td>
<td>$43.13 \textsuperscript{a}</td>
<td>$52.90 \textsuperscript{a}</td>
</tr>
<tr>
<td><strong>Study 4 (n = 92)</strong></td>
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</tr>
<tr>
<td><strong>High CFC-I:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High savings DN</td>
<td>75% \textsuperscript{b}</td>
<td>43% \textsuperscript{a}</td>
</tr>
<tr>
<td>Control</td>
<td>50% \textsuperscript{a}</td>
<td>50% \textsuperscript{a}</td>
</tr>
<tr>
<td><strong>Low CFC-I:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High savings DN</td>
<td>75% \textsuperscript{b}</td>
<td>65% \textsuperscript{b}</td>
</tr>
<tr>
<td>Control</td>
<td>68% \textsuperscript{b}</td>
<td>63% \textsuperscript{b}</td>
</tr>
</tbody>
</table>

Note. SI = social information; CSII = Consumer Susceptibility to Interpersonal Influence-Informative; CFC-I = Immediate Consequences Focus; Different superscripts indicate means are significantly different at $p < .05$. 
FIGURE 1
STUDY 3: MODERATING ROLE OF CONSUMER SUSCEPTIBILITY TO INTERPERSONAL
INFORMATIONAL INFLUENCE

Low CSII

<table>
<thead>
<tr>
<th>Control (no information)</th>
<th>High Savings Social Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral mindset</td>
<td>$52.90</td>
</tr>
<tr>
<td>Deliberative mindset</td>
<td>$43.13</td>
</tr>
<tr>
<td>$133.82</td>
<td></td>
</tr>
</tbody>
</table>

High CSII

<table>
<thead>
<tr>
<th>Control (no information)</th>
<th>High Savings Social Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral mindset</td>
<td>$48.21</td>
</tr>
<tr>
<td>Deliberative mindset</td>
<td>$56.56</td>
</tr>
<tr>
<td>$148.60</td>
<td></td>
</tr>
</tbody>
</table>
FIGURE 2

STUDY 4: MODERATING ROLE OF IMMEDIATE CONSEQUENCES FOCUS (CFC-I)

Myopic (High CFC-I)

- Control (no information): 50% Neutral Mindset, 50% Deliberative Mindset
- High Savings Social Information: 43% Neutral Mindset, 75% Deliberative Mindset

Farsighted (Low CFC-I)

- Control (no information): 63% Neutral Mindset, 68% Deliberative Mindset
- High Savings Social Information: 65% Neutral Mindset, 75% Deliberative Mindset

Temporal Discounting (% choosing the larger delayed gift card)