

Money in the Bank:
Feeling Powerful Increases Saving

EMILY N. GARBINSKY

ANNE-KATHRIN KLESSE

JENNIFER AAKER

Emily N. Garbinsky is a PhD candidate in marketing at Stanford University, Graduate School of Business, Stanford, CA 94305 (garbinsky_emily@gsb.stanford.edu). Anne-Kathrin Klesse is Assistant Professor of Marketing at Tilburg University, Department of Marketing, Warandelaan 2, 5000 LE Tilburg, The Netherlands (A.K.Klesse@uvt.nl). Jennifer Aaker is the General Atlantic Professor at Stanford University, Graduate School of Business, Stanford, CA 94305 (aaker@gsb.stanford.edu). This article is based on the first author's dissertation. The authors would like to thank Johannes Bögershausen, Adam Galinsky, Jonathan Levav, and Kathleen Vohs for their helpful comments, Hannes Datta for his analytical insight, and Carrie Chen and Ryan Dwyer for their research assistance. In addition, the authors are grateful for the helpful input of the editor, associate editor, and reviewers. Correspondence: Emily N. Garbinsky.

Across five studies, this research reveals that feeling powerful increases saving. This effect is driven by the desire to maintain one's current state. When the purpose of saving is no longer to accumulate money, but to spend it on a status-related product, the basic effect is reversed and those who feel powerless save more. Further, if money can no longer aid in maintaining one's current state, because power is already secure or because power is maintained by accumulating an alternative resource (e.g., knowledge), the effect of feeling powerful on saving disappears. These findings are discussed in light of their implications for research on power and saving.

“Money is power.” – Andrew Jackson

Though these words were spoken almost 200 years ago, they remain true even today. Extant research has demonstrated a strong link between power and money, as money is a common source of power (Keltner and Langner 2007). Knowing that possessing money makes people feel powerful (Furnham 1984), we set out to investigate if feeling powerful also prompts an increased willingness to save money. This question is particularly important for two reasons. First, individuals are likely to have experiences of feeling powerful (e.g., interviewing a potential employee, giving advice) and powerless (e.g., defending a thesis, submitting a job application) on a daily basis (Rucker and Galinsky 2008). Second, most Americans save too little. Even after the 2008 financial crisis, the majority of American households did not change their saving behavior (Kramer 2013).

Although explanations for why people fail to save their money abound (Bertrand, Mullainathan, and Shafir 2006; Mani et al. 2013; Vohs and Faber 2007), the majority of proposed explanations are relatively unchangeable - e.g., education level, familial upbringing, and level of self-control. In this research, we focus on a small psychological shift in individuals' mindset - whether they feel powerful - that may impact the amount of money they are willing to save. The results of five studies show that the experience of feeling powerful increases both intent to save and actual savings. We show that individuals who feel powerful save more because it enables them to maintain their current state. In line with this underlying mechanism, we demonstrate two boundary conditions. First, when the purpose of saving is no longer to accumulate money, but to spend money on a status-related product, the basic effect is reversed and powerless individuals save more. Second, if money can no longer aid in maintaining power,

because one's power is already secure or because power is maintained by accumulating an alternative resource such as knowledge, the effect of feeling powerful on saving disappears.

The contributions of this research are both theoretical and practical. Theoretically, we hope to contribute to existing research on saving by illuminating how certain situational states, such as feeling powerful, affect savings rates. Perhaps more importantly, we provide evidence for the effect of power on saving by showing that feeling powerful increases the desire to maintain one's current state. By doing so, we also hope to contribute to existing research on power by showing the consequences of feeling powerful on one's decision to keep money, rather than spend it (Dubois, Rucker, and Galinsky 2012; Rucker and Galinsky 2008, 2009). Practically, lack of saving is a significant challenge, particularly in the U.S. where credit crises are on the rise (Camara 2012). We hope this research may ameliorate this challenge by showing that the amount one saves can be affected by subtle shifts in feelings of power.

CONCEPTUAL BACKGROUND

Power is defined as asymmetric control over valued resources (Magee and Galinsky 2008) and is typically studied bi-modally (Keltner, Gruenfeld, and Anderson 2003) - examining the differential consequences of having power (i.e., feeling powerful) versus lacking power (i.e., feeling powerless). Indeed, research has shown that power is a psychological state that can be activated by instructing participants to recall prior events, or asking them to imagine situations where they feel powerful or powerless (Anderson and Galinsky 2006). Thus, it is possible to manipulate the subjective sense of how powerful one feels at a given moment independent of their actual position of power in daily life. For example, a powerful person (e.g., a CEO of a

large multi-national company) can still be made to feel powerless by being asked to recall a situation in which someone else had power over him.

There are numerous consequences of feeling powerful. For example, states of high power lead to increased risk taking (Anderson and Galinsky 2006), action orientation (Galinsky, Gruenfeld, and Magee 2003), and perceived control of the future (Fast et al. 2009), all tendencies frequently associated with poor decision making. Although these findings suggest that feeling powerful leads to a reduced ability to delay gratification, research has shown that feeling powerful increases the ability to delay gratification and wait for larger future rewards (Joshi and Fast 2013). The proposed explanation for this finding is that feeling powerful causes individuals to view their present and future selves as overlapping. Whereas most individuals treat the future self as another person (Pronin, Olivola, and Kennedy 2008; Pronin and Ross 2006), feeling powerful causes individuals to view the present and future self as more similar. Why might this be?

One explanation may be that feeling powerful motivates individuals to maintain their current state. As a result, those feeling powerful want their present and future selves to be more similar than those feeling powerless. Because states of high power foster optimism and confidence (Anderson and Galinsky 2006), heighten the ability to focus on and pursue goals (Guinote 2007; Overbeck and Park 2006), and elevate feelings of self-importance (Zimbardo 1974), feeling powerful is a pleasant state that individuals strive to maintain (Magee and Galinsky 2008; Jin, He, and Zhang 2014). Indeed, those feeling powerful tend to think and act in ways that enable them to secure their current position (Maner et al. 2007).

Because having power involves having control over resources (Magee and Galinsky 2008), and money is the most coveted resource we have (Burgoyne and Lea 2006), we suggest

that individuals who feel powerful want to accumulate money to secure their state of power. In other words, those in a state of high power should save more money because it enables them to accumulate financial resources that they can use to sustain power. Past research supports this idea as it has been shown that feeling powerful facilitates a stronger connection to the future self and consequently, is positively correlated with saving (Joshi and Fast 2013). We thus hypothesize that making individuals feel powerful will increase the amount of money they are willing to save. More formally:

H1: Those made to feel powerful will save more money relative to those made to feel powerless and those not exposed to a power prime.

As the most common reason to save is to keep money for the future without designating a specific spending purpose (Friedman 1956; Horioka and Watanabe 1997), Hypothesis 1 is based on the premise that those saving money aim to keep it for the future. However, there are many other reasons why people save. For example, people can save money for status-related reasons such as buying a luxury car or designer purse. Would individuals that feel powerful also save more than individuals that feel powerless when saving is motivated by compensatory consumption?

Although past research on compensatory consumption has shown that those who feel powerless can restore their sense of power by purchasing a high-status product (Rucker and Galinsky 2008; 2009), there are several reasons why we believe that saving for a status-related product will not enable those feeling powerful to maintain, or secure, their current state of power. First, acquiring status, which is primarily measured “in the eyes of others” (Ridgeway and Correll 2006), is more attractive to those feeling powerless because feelings of powerlessness heighten the focus on others (Galinsky et al. 2006). In line with this finding, results from an

ancillary study ($n = 80$) that we conducted revealed that those made to feel powerless, relative to those made to feel powerful, indicated greater agreement with statements such as “Power means showing other people that you have a lot of money” and “Powerful people buy nice things so other people can see them,” Cronbach’s $\alpha = .75$, $M_{\text{powerless}} = 6.49$, $M_{\text{powerful}} = 5.32$, $t(78) = 2.67$, $p < .01$.

Second, whereas feeling powerless activates a focus on others and prompts the need to signal status, feeling powerful heightens the focus on oneself (Fiske 1993; Rucker, Dubois, and Galinsky 2011). This increased self-focus might be a potential reason why those feeling powerful typically do not engage in compensatory consumption to signal status to others (Rucker and Galinsky 2008; 2009). Furthermore, those feeling powerful have less need to signal power as they already possess it. As it appears that status is not a primary means by which those feeling powerful attempt to maintain their current state, we hypothesize that individuals who feel powerful will save more than individuals who feel powerless only if the reason to save is to keep money in order to maintain control over financial resources. Thus, we derive the following hypothesis:

H2A: Individuals who feel powerful will save more than individuals who feel powerless if the reason to save is to keep money to secure one’s current state.

Knowing that those feeling powerless can engage in compensatory consumption to restore their sense of power, would framing saving as a means to buy status-related products motivate them to save? As the amount of money that one saves is not visible to others, one way in which saving money can fulfill the powerless’ goal to signal power is if the money is ultimately spent on an observable purchase. For this reason, we suggest that those feeling powerless will be motivated to save if the amount of money that one saves enables one to signal

power to others. Accordingly, to increase saving among those who feel powerless, we suggest that providing an opportunity to engage in compensatory consumption by attaching a purpose for saving that is in line with this goal (i.e., save for a luxury car) will cause those feeling powerless to save more than those feeling powerful. We hypothesize that individuals who feel powerless (versus powerful) will save more if the reason to save is to spend money on a status-related product. More formally:

H2B: Individuals who feel powerless will save more than individuals who feel powerful if the reason to save is to spend money on a status-related product.

Thus, we argue that the motivations to save differ among those feeling powerful and those feeling powerless, such that individuals who feel powerful are more focused on securing their power, making them more motivated to save only when the reason is to keep money.

Does this mean that individuals who feel powerful will always save more than individuals who feel powerless if saving is motivated by the desire to keep one's money? We suggest that this is not the case. If individuals who feel powerful are indeed motivated to save in order to accumulate money and thus maintain their power, increased saving should only occur if money serves as a means to maintain power. To examine this hypothesis, we demonstrate two instances in which money can no longer aid individuals in securing their power: when one's power is already secure or when another resource is needed for power.

Indeed, stability of the group hierarchy is an important moderator that has been shown to influence the extent to which individuals strive to maintain their power (Maner and Mead 2010). When the hierarchy is stable, and one's power is secure, powerful individuals feel less threatened and employ fewer strategies to protect their power (Mead and Maner 2012). As we argue that saving money is one strategy that people can use to secure their sense of power, we predict that

when one's power is already secure, the effect of power on saving should disappear. More formally:

H3A: The effect of feeling powerful on saving will be moderated by whether one's sense of power is secure.

As we suggest that the effect of power on saving depends on whether saving money can aid in maintaining power, we make a similar prediction when power can be maintained by accumulating alternative resources. Although money is arguably one of the most common sources of power (Keltner and Langner 2007), power can stem from other sources as well, such as knowledge (French and Raven 1959). This research suggests that in some circumstances, accumulating resources other than money may allow one to maintain their current state of power. Having knowledge-based expertise can make people feel powerful, especially when they possess knowledge that others lack. Medical doctors, for instance, feel more powerful than their patients because they have specialized knowledge that their patients lack. Similarly, older siblings feel more powerful than younger siblings because they have received more education, and are thus more knowledgeable. For this reason, we hypothesize that shifting the resource needed to maintain power from money to an alternative resource will cause the effect of power on saving to disappear as saving money can no longer serve as a means to maintain power. Only when money enables one to maintain power, we hypothesize that the effect of power on saving will be mediated by the desire to secure one's current state. More formally:

H3B: The effect of feeling powerful on saving will be moderated by whether money is the resource needed to maintain power.

H4: When saving money can aid in maintaining power, the effect of feeling powerful on saving will be mediated by the desire to maintain one's current state.

In studies 1 and 2, we test our first hypothesis by manipulating situational states of power to explore the effect on saving. In study 1, we show that participants made to feel powerful (vs. powerless or control) intend to save more money for the future. In study 2, we use a more subtle manipulation of power and examine the effect on real saving behavior. To test our second hypotheses (H2A and H2B), we manipulate the reason for saving in study 3. Participants either save to accumulate money to secure their current state or they save to spend money on a status-related product. We posit that individuals who feel powerful will save more money than individuals who feel powerless when the purpose of saving is to accumulate money to secure their current state. However, when the stated purpose of saving is to spend money on a status-related product, the effect should reverse, and individuals who feel powerless will save more than individuals who feel powerful because doing so provides them with an opportunity to signal power (Rucker and Galinsky 2008). Studies 4 and 5 examine whether the effect of power is moderated by whether saving can aid in maintaining power. Study 4 shows that securing one's sense of power (H3A) attenuates the effect of power on saving, and study 5 shows that shifting the ability to maintain power from money to an alternative resource (H3B) equally diminishes the effect of power on saving. Finally, we demonstrate that when saving can aid in maintaining power, the effect of power on saving is mediated by the desire to maintain one's current state (H4).

STUDY 1:

THE EFFECT OF FEELING POWERFUL ON SAVING

Overview and Design

The objective of study 1 was to test whether manipulating how powerful one feels affects the amount of money that one is willing to save. We used a writing manipulation to manipulate how powerful or powerless individuals felt (Galinsky, Gruenfeld, and Magee 2003). In addition, we included a control condition where subjects performed no writing task so as to determine whether the effect of power on saving is indeed driven by feeling powerful (and not powerless). All participants then imagined that they had just received 100 Euros and indicated how much of this money they would be willing to put in a savings account. Thus, study 1 used a single-factor between-subjects design where feelings of power were manipulated (high power vs. low power vs. control) and the amount of money participants were willing to save was the key dependent variable. We predicted that when individuals are made to feel powerful, they will be willing to save more money relative to those made to feel powerless and those not exposed to any power manipulation (H1).

Participants and Procedure

One hundred forty-one Tilburg university students (73% male, $M_{\text{age}} = 20.72$) were each paid 7 Euros to complete this study as part of a 50-minute-long set of surveys. Participants were randomly assigned to a power condition (high power vs. low power vs. control). Those in the high power condition completed a writing task such that they wrote about a time in their lives when they had power over someone else whereas those in the low power condition wrote about a time in their lives when someone else had power over them (Galinsky, Gruenfeld, and Magee 2003). Those in the control condition did not complete any writing task. Then, all participants

imagined that they had just received 100 Euros and indicated how many Euros they would put in a savings account. Finally, they indicated how happy they felt at that given moment on a scale ranging from 1 (Not at All) to 7 (Extremely).

Results and Discussion

To test hypothesis 1, the effect of power condition on amount willing to save was examined, revealing a significant effect of power on saving, $F(2, 138) = 5.17, p < .01$. Planned contrasts showed that participants in the high power condition were willing to save a larger portion of their 100 Euros ($M = €71.20, SD = €31.73$) than participants in the low power condition ($M = €48.73, SD = €36.80$), $t(138) = 2.97, p < .01$, and participants in the control condition ($M = €51.69, SD = €39.95$), $t(138) = 2.52, p = .01$. Importantly, there was no significant difference in amount willing to save among participants in the low power and control condition, $t(138) = .40, p = .69$.

However, the question arises whether writing about past experiences in which one felt powerful or powerless prompts different mood states, such as elevating one's reported happiness. If yes, it is possible that feeling happy, rather than feeling powerful, drove the elevated savings. To address this question, we examined the effect of power on happiness. An ANOVA revealed no significant difference in happiness, $F(2, 138) = .98, p = .38$, among participants in all three conditions. Additionally, when controlling for happiness, the effect of power on saving remained significant, $F(2, 138) = 5.89, p < .01$. Thus, it appears that mood is not responsible for the effect of power on saving. This finding is consistent with prior research demonstrating that

manipulations of power do not affect global mood (Galinsky, Gruenfeld, and Magee 2003; Rucker and Galinsky 2008; Smith et al. 2008).

Together, these results support the hypothesis that feeling powerful (vs. powerless or a control condition), leads to increased saving. Further, the results from the control condition suggest that feelings of power drive an increase in saving, rather than feelings of powerlessness driving a decrease in saving. However, these results do not shed light on whether feeling powerful affects actual saving behavior, a limitation that drove the design of study 2.

STUDY 2:

FEELING POWERFUL AND REAL SAVING BEHAVIOR

Overview and Design

The objective of study 2 was to explore whether the effect of power on saving translates to actual saving, generalizing from the findings of study 1. To further test robustness, we adapted a more subtle manipulation of power (Chen, Lee-Chai, and Bargh 2001), whereby participants in our study sat in a tall chair (high power condition) or on an ottoman (low power condition) while indicating how much to save. Thus, study 2 used a single-factor between-subjects design where feelings of power were manipulated (high power vs. low power) and the amount of money that participants saved was the key dependent variable.

Participants and Procedure

Seventy-six Stanford university students (38% male, $M_{\text{age}} = 22.32$) were paid \$10 to complete this study. Participants were recruited to the lab under the assumption that they would be providing feedback on how the lab operates. Upon arrival, all participants were escorted to a private room with a tall chair and an ottoman approximately three feet apart (see figure 1) and were randomly assigned to a power condition (high power vs. low power). Those in the high power condition sat on the tall chair whereas those in the low power condition sat on the ottoman. The research assistant interviewing the participant sat in the chair not being occupied (e.g., if the participant sat in the tall chair, the research assistant sat on the ottoman). Although participants sat in different chairs depending on their assigned condition, they always sat in the same area of the room as the location of the tall chair and ottoman were switched in between each experimental session.

Insert figure 1 about here

After sitting, the research assistant thanked the participant for coming and told them that the lab wanted this survey to be conducted face to face to ensure that they understand all issues participants raise with the lab. The research assistant then read a list of questions out loud to the participant and noted the participant's responses. The questions assessed opinions regarding ease of participation (e.g., how easy is it to sign up/cancel studies online, how easy is it to get help from an RA if you have a question while you're taking a study, etc.), studies offered (e.g., in general, how satisfied are you with the variety/number of studies that the behavioral lab offers, do you think the behavioral lab should offer more studies each quarter, etc.), and lab organization (e.g., does the behavioral lab appear to be organized, have you ever participated in a study that was running late, etc.). It took participants approximately five minutes ($M = 5.46$, $SD = 1.07$) to

answer all of the questions. When all questions were answered, the research assistant told participants that the lab is instituting a new payment policy and handed the participant a sheet of paper detailing the policy. The research assistant then left to check if the next participant is ready, and told the participant to read about the new policy, indicate their preference on the sheet, and meet the research assistant in the kitchen when they have done so (instructions to the kitchen were provided).

When the research assistant left the room, participants read the following:

Inspired by participants' feedback, the behavioral lab is instituting a new policy that allows its participants to set up a research savings account. This account is similar to an actual savings account, but will be managed solely by the behavioral lab. With this new policy, you now have two options for receiving your payment:

Existing Policy - You can collect money for studies immediately after you participate.

New Additional Policy - You can put the money you receive for participating in your research savings account and earn 10% interest (per month). For instance, if you participate in a study that pays \$5, you can receive the \$5 immediately after participating or you can save some (or all) of the \$5 in your research savings account.

Participants also read how interest rates work and how they could access their money when they decide that they want it (i.e., stop by the behavioral lab, have a check mailed to their home address, or have the lab electronically transfer the money into their bank account). They were also told that they would receive monthly e-mail notifications letting them know the amount of money they have in their account if they opt for this policy. Lastly, participants were reminded that their compensation for that day was \$10 and they subsequently indicated how much of this \$10 they wanted to be paid that day and how much they wanted to save in their

research account. After the participant handed this information to the research assistant, they completed a manipulation check (How powerful did you feel while talking to the RA?) as well as two covariate measures (How skeptical were you of the research savings account and how much do you trust the behavioral lab to manage your money?), on scales ranging from 1 (Not at All) to 7 (Very Much). They were then debriefed and paid \$10.

Results and Discussion

To determine whether the manipulation of power was successful, we compared our two conditions (high power vs. low power) on our manipulation check (How powerful did you feel while talking to the RA?). As expected, there was a significant effect of power condition on reported feelings of power ($F(1, 74) = 5.87, p = .02$), whereby participants reported feeling more powerful while talking to the RA in the high power condition ($M = 5.08, SD = 1.15$) than in the low power condition ($M = 4.50, SD = .92$).

To test hypothesis 1, the effect of power condition on amount of compensation willing to save was examined. Three participants were excluded from the analysis because they failed to read instructions (i.e., they checked the line that they want to save rather than indicating a specific amount of money they wanted to save). There was a significant effect of power on saving such that participants in the high power condition were willing to save a significantly larger portion of their compensation ($M = \$6.94, SD = \4.52) than participants in the low power condition ($M = \$4.49, SD = \4.69), $F(1, 71) = 5.20, p = .03$. Our results did not change when controlling for how skeptical participants were of the account as well as how much they trust the behavioral lab to manage their money, $F(1, 69) = 5.29, p = .03$.

To examine whether our results are due to a greater proportion of participants in the low power condition not saving at all, we coded participant responses into two categories: savers (those who indicated they would save any amount greater than \$0) and non-savers (those who indicated they would not save anything). A Chi-square test for independence indicated a marginal association between power and saving, $\chi^2 = 3.36, p = .07$, such that those feeling powerful (72%) were more likely to use the savings account than those feeling powerless (51%).

The results of experiment 2 suggest that how powerful an individual feels can affect actual saving behavior. Perhaps more importantly, the results show that even using a manipulation as subtle as the chair in which an individual sits is sufficient to produce changes in saving if it activates feelings of power. However, the results do not shed light on the underlying motivation to save when feeling powerful or powerless, which lead to the design of study 3.

STUDY 3:

SAVING TO KEEP VERSUS SPEND MONEY

Overview and Design

The primary objective of study 3 was to examine what motivates individuals to save when they feel powerful versus powerless. We predict that when the purpose of saving is to keep money to secure one's current state, those feeling powerful will save more than those feeling powerless (H2A). As the most common reason to save is to keep money for the future without designating a specific spending purpose (Friedman 1956; Horioka and Watanabe 1997),

participants who are not provided with any explicit reason to save (as in studies 1 and 2) and participants that are explicitly told that they are saving money to keep it will behave similarly.

However, when the purpose of saving is to spend money on a status-related product, we predict that those feeling powerless will save more than those feeling powerful (H2B). This hypothesis is consistent with past research suggesting that powerless individuals are more attuned to what others think and one way they can acquire power is by engaging in compensatory consumption (Dubois, Rucker, and Galinsky 2012).

The second objective of study 3 was to assess intentions to save without relying on windfalls (i.e., you just received 100 Euros) as we did in study 1. After participants were placed in a high power or low power condition, they indicated the amount of money they make each month and subsequently, how much of their own monthly income they would save. This formulation of the dependent variable eliminates the issues that arise when examining windfalls as individuals perceive windfalls differently than personal income (Levav and McGraw 2009).

Thus, study 3 used a 2 x 3 between-subjects design where feelings of power (high power vs. low power) and the reason for saving (save to spend vs. save to keep vs. unspecified reason) were manipulated. The percentage of monthly income that participants were willing to save was used as the key dependent variable because it allowed us to control for variations in participants' monthly income.

Participants and Procedure

Two hundred and nine participants from Mechanical Turk (48% male, $M_{\text{age}} = 31.49$) were paid \$0.50 to complete this study. Participants, randomly assigned to a power condition (high

power vs. low power), were told that the purpose of the study was to see how imagining scenarios affects decision making. To manipulate feelings of power, we adapted a manipulation used by Rucker, Dubois and Galinsky (2011) relying on a boss-employee power scenario. To increase generalizability and to ensure that our results can occur in non-business contexts, we manipulated power in an educational context. Those in the high power condition imagined the following scenario:

Imagine that you are a college student taking a class that is required for your major. Your professor has assigned a group project that is worth 75% of your final grade and has specifically selected you as the group leader. The professor told you that they decided to put you in charge of the group because they believe you are most capable. You have ten other group members that will listen to your instructions and look to you for guidance in order to complete the group project on time. At the end of the semester, you will evaluate each group member's performance and your evaluation will be incorporated into their project grade. They will not have the opportunity to evaluate you.

Those in the low power condition imagined the following scenario:

Imagine that you are a college student taking a class that is required for your major. Your professor has assigned a group project that is worth 75% of your final grade and has specifically selected another student as the group leader. The professor told the group leader that they decided to put him in charge of the group because they believe he is most capable. You are one of ten other group members that will listen to the group leader's instructions and look to the group leader for guidance in order to complete the group project on time. At the end of the semester, the group leader will evaluate your performance and his evaluation will be

incorporated into your project grade. You will not have the opportunity to evaluate the group leader.

Next, participants were told that the imagination portion of the study had ended and they would now proceed to the second part of the survey. They indicated how much money they make every month, before taxes. Those in the unspecified reason condition were told: “Imagine you now have to decide how much of this money you would like to save. Please indicate the amount you would put in your savings account.” Those in the save to keep condition were told: “Imagine you now have to decide how much of this money you would like to save in case you need it in the future. You have a special savings account that you opened specifically to put money for your security. Please indicate the amount you would put in this savings account.” Lastly, those in the save to spend condition were told: “Imagine you now have to decide how much of this money you would like to save for a BMW. You have a special savings account that you opened specifically to put money for this car. Please indicate the amount you would put in this savings account.” A BMW was chosen because past research has shown that this product is associated with high status (Rucker and Galinsky 2009). After indicating how much of their monthly income they would save, all participants completed demographic questions.

Results and Discussion

To test hypotheses 2A and 2B, we examined the effect of power condition and reason for saving on percentage of monthly income willing to save. One participant was excluded from the analysis because he indicated that he would save more money than he makes each month. There was a main effect of power such that participants in the high power condition were willing to

save a significantly larger percentage of their monthly income ($M = .29$, $SD = .25$) than participants in the low power condition ($M = .19$, $SD = .23$), $F(2, 202) = 12.34$, $p < .01$. There was also a main effect of reason for saving such that participants were willing to save more when they were saving for no explicit purpose ($M = .28$, $SD = .24$) or saving to keep money in case it is needed in the future ($M = .27$, $SD = .22$) compared to saving to spend money on a BMW ($M = .18$, $SD = .26$), $F(2, 202) = 4.33$, $p = .01$. More importantly, the analysis revealed a significant interaction between power and reason for saving on percent saving, $F(2, 202) = 13.29$, $p < .001$. We also tested for the significance of the main and interaction effects in a model that bounds the dependent variable between 0 and 1 using a logistic transformation (Pieters and Bijmolt 1997). Our results did not change.

When the reason for saving was not explicitly stated, planned contrasts revealed that participants in the high power condition were willing to save a significantly larger percentage of their monthly income ($M = .42$, $SD = .24$) than participants in the low power condition ($M = .14$, $SD = .13$), $t(202) = 4.97$, $p < .001$, replicating our previous finding. Similarly, planned contrasts showed that when the reason for saving was to keep money in case it is needed in the future, participants in the high power condition were willing to save a significantly larger percentage of their monthly income ($M = .34$, $SD = .24$) than participants in the low power condition ($M = .20$, $SD = .18$), $t(202) = 2.66$, $p < .01$. However, when the reason for saving was to spend money on a BMW, the pattern reversed, such that participants in the low power condition were willing to save a larger percentage of their monthly income ($M = .23$, $SD = .31$) than participants in the high power condition ($M = .13$, $SD = .18$), $t(202) = 1.95$, $p = .05$ (see figure 2). Note that when the participant that was excluded from the analysis is included, this contrast does not change, $t(203) = 2.08$, $p = .04$.

Insert figure 2 about here

Importantly, there was no significant difference in percent saving among high power participants that were saving to keep money and high power participants that were saving for no explicit purpose, $t(202) = 1.36, p = .18$. Similarly, there was no significant difference in percent saving among low power participants that were saving to keep money and low power participants that were saving for no explicit purpose, $t(202) = 1.10, p = .27$. These results suggest, in line with past research, that the status quo for saving is to keep money for the future rather than designate a concrete spending goal (Friedman 1956; Horioka and Watanabe 1997).

These findings demonstrate that when the reason to save is to accumulate money for the future, those who feel powerful save more than those who feel powerless. However, there are certain situations where the opposite trend occurs, and those who feel powerless save more than those who feel powerful. Specifically, we show that powerful individuals saved more money than powerless individuals when the reason for saving was to keep money for the future (H2A), but when the reason for saving was to spend money on a high-status product, powerless individuals saved more money than powerful individuals (H2B). These results suggest that individuals who feel powerful save to have control over resources (i.e., money) because they are motivated to maintain their current state. In studies 4 and 5, we sought to provide direct evidence for this mechanism by showing that the desire to maintain one's current state mediates the effect of feeling powerful on saving. In addition, we demonstrate two boundary conditions in which the effect of power on saving disappears. In study 4, we attenuate the relationship between feeling powerful and the desire to maintain one's current state, and in study 5, we attenuate the relationship between the desire to maintain one's current state and saving.

STUDY 4:

SECURE VERSUS UNSECURE POSITION OF POWER

Overview and Design

Study 4 sheds light on the underlying mechanism in two important ways. First, we demonstrate that the effect of power on saving is moderated by whether one's sense of power is secure (H3A). That is, if an individual no longer needs to maintain power, because their position of power is secure, the effect of power on saving disappears. As such, we aim to attenuate the relationship between feeling powerful and the desire to maintain this state and show that doing so negates the relationship between feeling powerful and saving. Second, we show that when participants are not told that their position of power is secure, the desire to maintain this state mediates the effect of feeling powerful on saving (H4).

Thus, study 4 used a 2 x 2 between-subjects design where feelings of power (high power vs. low power) and the security of power position (control vs. secure) were manipulated. The percentage of monthly income that participants were willing to save was the key dependent variable. We predicted that in the control condition, we would replicate our effect that high power participants save more than low power participants, and that this effect would be mediated by the desire to maintain one's current state. However, we predicted no difference in saving among high power and low power participants when power position is secure, as striving to maintain one's current state is no longer necessary.

Participants and Procedure

One hundred fifty-four participants from Mechanical Turk (58% male, $M_{\text{age}} = 33.60$) were paid \$0.50 to complete this study. Participants were made to feel powerful or powerless. Those made to feel powerful imagined that they were a boss at a company whereas those made to feel powerless imagined that they were an employee (as in Rucker, Dubois and Galinsky 2011). Next, all participants indicated the amount of money they make every month, before taxes.

Participants were then placed in either the secure position condition or the control condition. Those in the control condition read nothing whereas those in the secure position condition read the following:

Imagine that your workplace has been extremely happy with your progress. Because of your effort, the company has decided to offer you a lifelong contract. This contract guarantees that you will be able to maintain your current position at the company until you want to retire. You decided to sign the contract.

Then, all participants were shown how much money they said they make each month and subsequently indicated how much money (out of their monthly income) they would put in their savings account. Finally, to establish mediation, participants indicated their agreement with the following statements on a scale ranging from 1 (Not at All) to 7 (Very Much): “I want my current situation to stay the way that it is” and “I want to continue feeling the way I feel now.”

Results and Discussion

To test hypothesis 3A, we examined the effect of power condition and the security of position on percentage of monthly income willing to save. There was a main effect of power such that participants in the high power condition were willing to save a significantly larger percentage of their monthly income ($M = .27, SD = .25$) than participants in the low power condition ($M = .20, SD = .17$), $F(1, 150) = 4.06, p = .05$. There was no main effect of security of position, $F(1, 150) = 2.81, p = .10$. More importantly, this analysis revealed a significant interaction between feeling powerful and security of position on percent saving, $F(1, 150) = 3.90, p = .05$. We also tested for the significance of the main and interaction effects in a model that bounds the dependent variable between 0 and 1 using a logistic transformation (Pieters and Bijmolt 1997). Our results did not change.

Planned contrasts showed that in the control condition, high power participants were willing to save a significantly larger percentage of their monthly income ($M = .33, SD = .28$) than low power participants ($M = .20, SD = .15$), $t(150) = 2.79, p < .01$. However, when one's power position is secure, there was no significant difference in percentage of monthly income willing to save among high power ($M = .21, SD = .20$) and low power participants ($M = .21, SD = .19$), $t(150) = .03, p = .98$ (see figure 3).

 Insert figure 3 about here

To understand the role of maintaining power, we averaged agreement with the statements “I want my current situation to stay the way that it is” and “I want to continue feeling the way I feel now” to create a maintenance index (Cronbach's alpha = .89). To examine whether the desire to maintain power drives saving for participants in the control condition, but not for those in the secure position condition (H4A), we conducted a moderated mediation analysis, based on

the approach and SPSS macro developed by Preacher, Rucker, and Hayes (2007) using Model 2. A bootstrap sample with 5,000 draws was administered to examine the conditional indirect effect. The results indicate moderated mediation as the 95% confidence interval for the maintenance index excludes zero (.005, .078) for participants in the control condition, whereas the 95% confidence interval for the maintenance index includes zero (-.023, .033) for participants in the secure position condition (see figure 4). In other words, the desire to maintain one's current state mediates the effect of power on saving for those in the control condition, but not for those in the secure position condition, consistent with our hypothesis.

 Insert figure 4 about here

Together, these results support the hypothesis that the effect of power on saving is moderated by whether one's sense of power is secure (H3A). Given the strong relationship between money and power (Furnham 1984; Keltner and Langner 2007), we chose to secure one's sense of power by securing their company position, and thus their income. When one's sense of power is already secure and saving money no longer enables individuals to keep their current state, the effect of power on saving disappears. Thus, in situations where accumulating money can no longer aid in maintaining power, those who feel powerful and those who feel powerless do not differ in the amount of money they are willing to save. Further, the moderated mediation analysis confirms that when power is not explicitly secured, the desire to maintain one's current state drives the decision of how much money to save (H4).

STUDY 5:

RESOURCE NEEDED FOR POWER: MONEY VERSUS KNOWLEDGE

Overview and Design

Study 5 sheds further light on the underlying mechanism by demonstrating an additional situation where the effect of power on saving is moderated by whether saving can aid in maintaining power. That is, if money can no longer enable an individual to maintain power, because power is maintained by accumulating an alternative resource (i.e., knowledge), the effect of power on saving disappears (H3B). As such, we aim to negate the effect of power on saving by attenuating the relationship between the desire to maintain power and saving, rather than the relationship between feeling powerful and the desire to maintain this state as we did in Study 4. We sought to accomplish this goal by highlighting that an alternative resource (i.e., knowledge) is needed to maintain power or not. Once again, we intend to show that when saving can enable an individual to maintain power, the desire to maintain this state mediates the effect of feeling powerful on saving (H4).

Thus, study 5 used a 2 x 2 between-subjects design where feelings of power (high power vs. low power) and the resource needed to maintain power (control vs. knowledge) were manipulated. The percentage of monthly income that participants were willing to save was the key dependent variable. We predicted that in the control condition, we would replicate our effect that high power participants save more than low power participants, and that this effect would be mediated by the desire to maintain one's current state. However, we predicted no difference in saving among high power and low power participants when knowledge is needed to maintain power, as saving money is no longer a way to maintain one's current state.

Participants and Procedure

One hundred seventy-eight participants from Mechanical Turk (52% male, $M_{\text{age}} = 31.53$) were paid \$0.50 to complete this study. All participants were randomly assigned to the knowledge is power condition or the control condition. Those in the control condition read nothing whereas those in the knowledge is power condition read the following article:

“Knowledge is Power”

By A.F. Porter

What is power? Several studies highlight that “knowledge is power.” For instance, in a new study by Alan Greensby, a social psychology Ph.D. at Harvard University, participants were asked to select from a range of different nouns the one that they associate the most with power. 84% of all participants ($n = 250$) equated power with knowledge. This widely-held belief appears to be expressed best by Kofi Annan, former Secretary-General of the United Nations: “Knowledge is power. Information is liberating. Education is the premise of progress, in every society, in every family.”

According to Greensby, the majority of Americans share this belief. In another large national survey ($n = 1000$, mean age = 32, 43% male), participants were asked to list the first thing that comes to mind when they think of power. After coding each response, Greensby realized that an overwhelming number of participants listed knowledge or at least made a reference to information. Further, when asked what they would do to maintain or attain power, participants frequently referred to gathering information, getting expertise, or deepening one’s knowledge as strategies. It appears that in our society, the more one knows, the better able they are to rise to the top and stay there.

After being placed in this condition, participants were made to feel powerful or powerless by imagining that they were a boss (high power condition) or an employee (low power condition) at a company (as in Rucker, Dubois and Galinsky 2011). Next, all participants indicated the amount of money they would be willing to save in a manner that was identical to study 4; they indicated how much money they make every month, before taxes, and then indicated how much of this money they would put in their savings account if they had to make the decision to save at that moment.

Finally, to establish mediation, participants indicated their agreement with the following statements on a scale ranging from 1 (Not at All) to 7 (Very Much): “I want my current situation to stay the way that it is” and “I want to continue feeling the way I feel now.”

Results and Discussion

To test hypothesis 3B, we examined the effect of power condition and resource needed to maintain power on percentage of monthly income willing to save. There was a main effect of power such that participants in the high power condition were willing to save a significantly larger percentage of their monthly income ($M = .29$, $SD = .23$) than participants in the low power condition ($M = .23$, $SD = .17$), $F(1, 174) = 3.87$, $p = .05$. There was no main effect of resource needed to maintain power, $F(1, 174) = .46$, $p = .50$. More importantly, this analysis revealed a significant interaction between power and resource on percent saving, $F(1, 174) = 4.41$, $p = .04$. We also tested for the significance of the main and interaction effects in a model that bounds the dependent variable between 0 and 1 using a logistic transformation (Pieters and Bijmolt 1997). Our results did not change.

Planned contrasts showed that in the control condition, high power participants were willing to save a significantly larger percentage of their monthly income ($M = .33, SD = .26$) than low power participants ($M = .21, SD = .15$), $t(174) = 2.98, p < .01$. However, when knowledge is needed to maintain power, there was no significant difference in percentage of monthly income willing to save among high power ($M = .24, SD = .19$) and low power participants ($M = .25, SD = .20$), $t(174) = .09, p = .93$ (see figure 5).

 Insert figure 5 about here

To understand the role of maintaining power, we averaged agreement with the statements “I want my current situation to stay the way that it is” and “I want to continue feeling the way I feel now” to create a maintenance index (Cronbach’s alpha = .91). To examine whether the desire to maintain power drives saving for participants in the control condition, but not for those in the knowledge is power condition (H4), we conducted a moderated mediation analysis, based on the approach and SPSS macro developed by Preacher, Rucker, and Hayes (2007) using Model 3. A bootstrap sample with 5,000 draws was administered to examine the conditional indirect effect. The results indicate moderated mediation as the 95% confidence interval for the maintenance index excludes zero (.018, .110) for participants in the control condition, whereas the 95% confidence interval for the maintenance index includes zero (-.029, .014) for participants in the knowledge is power condition (see figure 6). In other words, the desire to maintain one’s current state mediates the effect of power on saving for those in the control condition, but not for those in the knowledge is power condition, consistent with our hypothesis.

Insert figure 6 about here

Together, these results support the hypothesis that the effect of power on saving is moderated by whether money is the resource needed to maintain power (H3B). When power is maintained by accumulating an alternative resource (i.e., knowledge), causing money to no longer enable individuals to keep their current state, the effect of power on saving disappears. Thus, in situations where money is no longer tied to power, those who feel powerful and those who feel powerless do not differ in the amount of money they are willing to save. Further, the moderated mediation analysis confirms that when power is not explicitly linked to another resource (i.e., knowledge), the desire to maintain one's current state drives the decision of how much money to save (H4).

GENERAL DISCUSSION

In this research, we test the hypothesis that feeling powerful increases saving because powerful individuals are motivated to maintain their current state. Since power entails having control over resources (Magee and Galinsky 2008), we show that one way to maintain power is by accumulating financial resources for the future (i.e., saving money). Specifically, we present the results of five studies. Study 1 illustrates our basic effect that feeling powerful increases saving compared to feeling powerless and a control condition. Importantly, we replicate our basic effect in study 2 with real saving behavior, illustrating the generalizability of our effect. The next three studies provide evidence for when and why feeling powerful increases saving. Study 3 demonstrates that feeling powerful only increases saving when the purpose of saving is

to keep money for the future. On the contrary, when the purpose of saving is to spend money on a status-related product, the effect of power on saving is reversed and powerless individuals save more. Studies 4 and 5 shed additional light on the underlying mechanism in two important ways. First, we demonstrate that if money can no longer aid in maintaining power, because power is already secure (study 4) or because power is maintained by accumulating an alternative resource (study 5), the effect of power on saving disappears. Second, we highlight that in situations where money can aid in maintaining power, the desire to maintain one's current state mediates the effect of feeling powerful on saving. Importantly, we show that the effect of power on saving holds across a variety of different power manipulations in which power does not stem from money. Our results also suggest that the default way to maintain power, even in situations where power stems from a non-monetary source, is by accumulating money (studies 1-4). However, study 5 highlights that explicitly linking the ability to maintain power to a resource other than money attenuates this effect.

Theoretical Contributions

We believe the current work offers a number of important theoretical contributions. First, it contributes to past research on power, which has shown a positive correlation between feeling powerful and saving money as a result of an increased connection with one's future self (Joshi and Fast 2013). We build on this work by illuminating the underlying motivation for why those feeling powerful desire a greater connection between their present and future selves. Specifically, we suggest that the motivation to maintain one's current state when feeling powerful is an important factor to consider.

Our work also contributes more generally to past theories of power, which have been energized by a growing stream of research (Keltner, Gruenfeld, and Anderson 2003). This research stream has shown, for example, that power leads to increased optimism and risk-taking (Anderson and Galinsky 2006), higher perceived control over future outcomes (Fast et al. 2009), and reduced levels of loss aversion (Inesi 2010). Given these results, it might appear that feeling powerful decreases saving, rather than increases it as we suggest. However, it is important to note that the dependent variables of interest in past work (e.g., estimations of fatalities from various causes of death, willingness to roll die themselves or rely on the experimenter, willingness to exchange one gift voucher for another, etc.) have not enabled participants to maintain control of their power in the same way as our dependent variable of interest (i.e., willingness to save money) does. Thus, past findings may have the potential to be reversed if the dependent variable is explicitly linked to one's ability to maintain power. For instance, if individuals were to lose an item that would enable them to sustain power, powerful individuals may instead become more loss averse, rather than less as past work has shown (Inesi 2010). Thus, our work sheds light on potential boundary conditions for these important past findings on power.

Lastly, although we provide evidence for the mechanism of the desire to maintain one's current state, there are alternative explanations for why power increases saving that merit discussion. For example, prior work has shown that high power leads to increased action orientation (Galinsky, Gruenfeld, and Magee 2003) and enhanced executive functioning relative to low power (Smith et al. 2008), either of which could potentially explain why power increases saving. However, neither explanation is sufficient to explain all of our results. Based on these alternative accounts, we would predict that power increases saving regardless of the reason for

saving (i.e., saving money to keep it versus saving money to spend it on a status-related product) and regardless of whether money can aid in maintaining power. For this reason, we believe that the interaction effects demonstrated in studies 3, 4, and 5 cast doubt on these alternative explanations for our effect.

Practical Contributions

Our work contributes to research on saving, which has received increased attention over the past few years as the personal savings rate for Americans has been negative for the first time since the Great Depression years (Wilson 2010). The two most prominent suggestions for ameliorating the low savings rate have been automatic enrollment in savings plans coupled with the Save More Tomorrow program, both of which capitalize on behavioral phenomena to leverage the effectiveness of such programs (Thaler and Sunstein 2008). With this in mind, we hope to spur future intervention programs that draw upon our research, highlighting the importance of feeling powerful as a driver of increased saving. Our findings could also be used in conjunction with existing programs, as making people feel powerful may increase the likelihood that individuals will participate in these programs.

The present research is of particular interest to banks, governments, and organizations that want to increase saving because the findings suggest that psychological states, such as power, influence how much money people save. Although we used a number of different manipulations to induce feelings of power (i.e., recall task and two imagination scenarios) to test the robustness of our effect, we also employed a more subtle manipulation of power (i.e., sitting in a high relative to low chair in study 2) to better mimic actual experiences of power that

individuals encounter on a daily basis. These results also show that feeling powerful, relative to feeling powerless, leads to increased saving. Perhaps more importantly, even using a manipulation as subtle as the chair in which an individual sits is sufficient to produce changes in saving behavior.

Caveats and Calls for Future Research

This research was inspired by a lack of empirical work examining what motivates saving. Our findings and methods, however, are not without their limitations. Although the current studies (studies 3, 4, and 5) were intended to measure saving in a realistic way and participants in study 2 indicated how much money they would actually save, future research needs to determine whether the effect still holds when the saving decision involves trade-offs. For instance, when meeting with a financial advisor, individuals likely have to make multiple decisions ranging from saving to spending to investing, with the decision of how much money to save affecting how much money one can spend or invest. For this reason, future research should examine whether feeling powerful continues to prompt saving in spite of these tradeoffs.

A second limitation of our studies is that saving behavior is only measured at one point in time. As saving is a longitudinal phenomenon, it will be important to measure how feelings of power affect saving over time. Knowing from past research that power facilitates goal consistent behavior (Guinote 2007) through both conscious (Overbeck and Park 2006) and unconscious means (DeMarree et al. 2012), we would expect those feeling powerful to more successfully pursue their savings goal than those feeling powerless. In order to establish if this is indeed the case, future research could employ a longitudinal design to track saving behavior.

A third area worthy of investigation is the relationship between power, saving, and income level, particularly how income level interacts with feelings of power to affect saving. High income individuals by definition have more resources (e.g., money) than low income individuals, and thus should feel more powerful and save more. Past research supports this notion as saving is particularly sparse among low income individuals (Bertrand, Mullainathan, and Shafir 2006). Our findings thus suggest that using power to increase saving is especially applicable for those with low income. Future research that elucidates the role of financial wealth (subjective and objective) would be a practically relevant area of investigation.

Finally, we argue that the desire to maintain power causes those feeling powerful to accumulate resources that will enable them to maintain their current state. In this paper, we show that individuals who feel powerful automatically consider accumulating money as a means to maintain their current state. However, when power is explicitly maintained by accumulating an alternative resource (i.e., knowledge), the effect of power on saving disappears. This leads to the following question: If power is maintained by accumulating another resource (e.g., knowledge), does this also produce changes in behavior associated with that resource that would enable those feeling powerful to maintain their current state (e.g., increased studying)? Similarly, we speculate that conditions where status is explicitly linked to maintaining power would motivate those feeling powerful to save for status-related reasons. This question is in need of empirical illumination as there are multiple ways to maintain a psychological state of power (French and Raven 1959; Rucker and Galinsky 2008). Consequently, maintaining power might require control over different types of resources. With this perspective, we contribute to the study of power by showing that the desire to maintain this state has the ability to affect not only the

decision of how much money to save, but also has the potential to affect a host of other important behaviors if they are related to maintaining that state.

DATA COLLECTION PARAGRAPH

The second author supervised the collection of data for study 1 at Tilburg University in February 2013. The first author managed the collection of data for study 2 at the Stanford Graduate School of Business Behavioral Lab in January 2014. The first author also managed the collection of data for studies 3, 4, and 5 using the Qualtrics panel described in the methods section in July (study 3), August (study 5), and October 2013 (study 4).

REFERENCES

- Anderson, Cameron and Adam D. Galinsky (2006), "Power, Optimism, and Risk-Taking," *European Journal of Social Psychology*, 36, 511-36.
- Bertrand, Marianne, Sendhil Mullainathan, and Eldar Shafir (2006), "Behavioral Economics and Marketing in Aid of Decision Making Among the Poor," *Journal of Public Policy and Marketing*, 25 (1), 8-23.
- Burgoyne, Carole B. and Stephen E. G. Lea (2006), "Money is Material," *Science*, 314, 1091-2.
- Camara, Christina (2012), "Survey Finds Americans Out of Touch with How Much They Spend," <http://www.accountingweb.com/topic/cfo/survey-shows-americans-need-spend-less-save-more-set-budget>.
- Chen, Serena, Annette Y. Lee-Chai, and John A. Bargh (2001), "Relationship Orientation as a Moderator of the Effects of Social Power," *Journal of Personality and Social Psychology*, 80 (2), 173-87.
- DeMarree, Kenneth, Chris Loersch, Pablo Briñol, Richard E. Petty, B. Keith Payne, and Derek D. Rucker (2012), "From Primed Construct to Motivated Behavior: Validation Processes in Goal Pursuit," *Personality and Social Psychology Bulletin*, 38, 1659-70.
- Dubois, David, Derek D. Rucker, and Adam D. Galinsky (2012), "Super Size Me: Product Size as a Signal of Status," *Journal of Consumer Research*, 38 (6), 1047-62.
- Fast, Nathanael J., Deborah H. Gruenfeld, Niro Sivanathan, and Adam D. Galinsky (2009), "Illusory Control: A Generative Force Behind Power's Far-Reaching Effects," *Psychological Science*, 20 (4), 502-8.
- Fiske, Susan (1993), "Controlling Other People: The Impact of Power on Stereotyping," *American Psychologist*, 48, 621-28.

- Friedman, Milton A. (1956), *A Theory of the Consumption Function*, Princeton, NJ: Princeton University Press.
- French, John R. P. Jr. and Bertram Raven (1959), "The Bases of Social Power," in *Studies in Social Power*, ed. Dorin Cartwright, Ann Arbor, MI: Institute for Social Research, 150-67.
- Furnham, Adrian (1984), "Many Sides of the Coin: The Psychology of Money Usage," *Personality and Individual Differences*, 5 (5), 501-9.
- Galinsky, Adam D., Deborah H. Gruenfeld, and Joe C. Magee (2003), "From Power to Action," *Journal of Personality and Social Psychology*, 85 (September), 453-66.
- Guinote, Ana (2007). "Power and Goal Pursuit," *Personality and Social Psychology Bulletin*, 33, 1076-87.
- Hershfield, Hal E. (2011), "Future Self-Continuity: How Conceptions of the Future Self Transform Intertemporal Choice," *Annals of the New York Academy of Sciences*, 1235, 30-43.
- Hershfield, Hal E., Daniel G. Goldstein, William F. Sharpe, Jesse Fox, Leo Yeykelis, Laura L. Cartensen, and Jeremy N. Bailenson (2011), "Increasing Saving Behavior Through Age-Progressed Renderings of the Future Self," *Journal of Marketing Research*, 48 (Special Issue), S23-37.
- Horioka, Charles Yuji and Wako Watanabe (1997), "Why Do People Save? A Micro-Analysis of Motives for Household Saving in Japan," *The Economic Journal*, 107 (442), 537-52.
- Inesi, M. Ena (2010), "Power and Loss Aversion," *Organizational Behavior and Human Decision Processes*, 112, 58-69.

- Jin, Liyin, Yanqun He, and Ying Zhang (2014), "How Power States Influence Consumers' Perceptions of Price Unfairness," *Journal of Consumer Research*, 40 (5), 818-33.
- Joshi, Priyanka D. and Nathanael J. Fast (2013), "Power and Reduced Temporal Discounting," *Psychological Science*, 24 (4), 432-8.
- Keltner, Dacher, Gruenfeld, Deborah H., and Cameron Anderson (2003), "Power, Approach, and Inhibition," *Psychological Review*, 110 (2), 265-84.
- Keltner, Dacher and Langner, Carrie (2007), "Power," in *Encyclopedia of Social Psychology*, ed. Roy Baumeister and Kathleen D. Vohs, Thousand Oaks, CA: Sage, 689-91.
- Kramer, Leslie (2013), "America's Saving Crisis: Your Spending Habits May Be to Blame," <http://www.cnbc.com/id/100700580>.
- Levav, Jonathan and A. Peter McGraw (2009), "Emotional Accounting: How Feelings About Money Influence Consumer Choice," *Journal of Marketing Research*, 46 (February), 66-80.
- Magee, Joe C. and Adam D. Galinsky (2008), "Social Hierarchy: The Self-Reinforcing Nature of Power and Status," *Academy of Management Annals*, 2 (1), 351-98.
- Maner, Jon K., Matthew T. Gailliot, David A. Butz, and B. Michelle Peruche (2007), "Power, Risk, and the Status Quo: Does Power Promote Riskier or More Conservative Decision Making?," *Personality and Social Psychology Bulletin*, 33 (4), 451-62.
- Maner, Jon K. and Nicole L. Mead (2010), "The Essential Tension Between Leadership and Power: When Leaders Sacrifice Group Goals for the Sake of Self-Interest," *Journal of Personality and Social Psychology*, 99(September), 482-97.
- Mani, Anandi, Sendhil Mullainathan, Eldar Shafir, and Jiaying Zhao (2013), "Poverty Impedes Cognitive Function," *Science*, 341, 976-80.

- Mead, Nicole L. and Jon K. Maner (2012), "On Keeping Your Enemies Close: Power Causes People to Seek Proximity to Ingroup Power Threats," *Journal of Personality and Social Psychology*, 102(3), 576-91.
- Overbeck, Jennifer R. and Bernadette Park (2006), "Powerful Perceivers, Powerless Objects: Flexibility of Powerholders' Social Attention," *Organizational Behavior and Human Decision Processes*, 99, 227-43.
- Pieters, Rik G.M and Tammo H.A. Bijmolt (1997), "Consumer Memory for Television Advertising: A Field Study of Duration, Serial Position, and Competition Effects," *Journal of Consumer Research*, 23 (March), 362-72.
- Preacher, Kristopher J., Derek D. Rucker, and Andrew F. Hayes (2007), "Assessing Moderated Mediation Hypotheses: Theory, Methods, and Prescriptions," *Multivariate Behavioral Research*, 42, 185-227.
- Pronin, Emily and Lee Ross (2006), "Temporal Differences in Trait Self-Ascription: When the Self is Seen as an Other," *Journal of Personality and Social Psychology*, 90, 197-209.
- Pronin, Emily, Christopher Y. Olivola, and Kathleen A. Kennedy (2008), "Doing Unto Future Selves as You Would Do Unto Others: Psychological Distance and Decision Making," *Personality and Social Psychology Bulletin*, 34, 224-36.
- Ridgeway, Cecilia and Shelly Correll (2006), "Consensus and the Creation of Status Beliefs," *Social Forces*, 85 (September), 431-53.
- Rucker, Derek D., David Dubois, and Adam D. Galinsky (2011), "Generous Paupers and Stingy Princes: Power Drives Consumer Spending on Self versus Others," *Journal of Consumer Research*, 37 (April), 1015-29.

- Rucker, Derek D. and Adam D. Galinsky (2008), "Desire to Acquire: Powerlessness and Compensatory Consumption," *Journal of Consumer Research*, 35 (2), 257-67.
- _____ (2009), "Conspicuous Consumption Versus Utilitarian Ideals: How Different Levels of Power Shape Consumer Behavior," *Journal of Experimental Social Psychology*, 45, 549-55.
- Smith, Pamela K., Nils B. Jostmann, Adam D. Galinsky, and Wilco W. van Dijk (2008), "Lacking Power Impairs Executive Functions," *Psychological Science*, 19, 441-7.
- Thaler, Richard H. and Cass R. Sunstein (2008), *Nudge: Improving Decisions About Health, Wealth, and Happiness*, New Haven, CT: Yale University Press.
- Vohs, Kathleen D. and Ronald J. Faber (2007), "Spent Resources: Self-Regulatory Resource Ability Affects Impulse Buying," *Journal of Consumer Research*, 33(March), 537-47,
- Wilson, David (2010), "U.S. Savings Rate Falls to Depression Era Levels,"
<http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aexjnfkHIS0>.
- Zimbardo, Philip G., Craig Haney, Curtis Banks, and David Jaffe (1974), "The Psychology of Imprisonment: Privation, Power, and Pathology," in *Doing unto Others: Explorations in Social Behavior*, ed. Zick Rubin, Englewood Cliffs, NJ: Prentice-Hall, 61-73.

FIGURE 1

STUDY 2: STUDY SET-UP

FIGURE 2

STUDY 3: PERCENT SAVING ACROSS ALL SIX CONDITIONS

FIGURE 3

STUDY 4: PERCENT SAVING ACROSS ALL FOUR CONDITIONS

FIGURE 4

STUDY 4: MODERATED MEDIATION MODEL

FIGURE 5

STUDY 5: PERCENT SAVING ACROSS ALL FOUR CONDITIONS

FIGURE 6

STUDY 5: MODERATED MEDIATION MODEL

FIGURE 1

STUDY 2: FEELING POWERFUL AND REAL SAVING BEHAVIOR

STUDY SET-UP

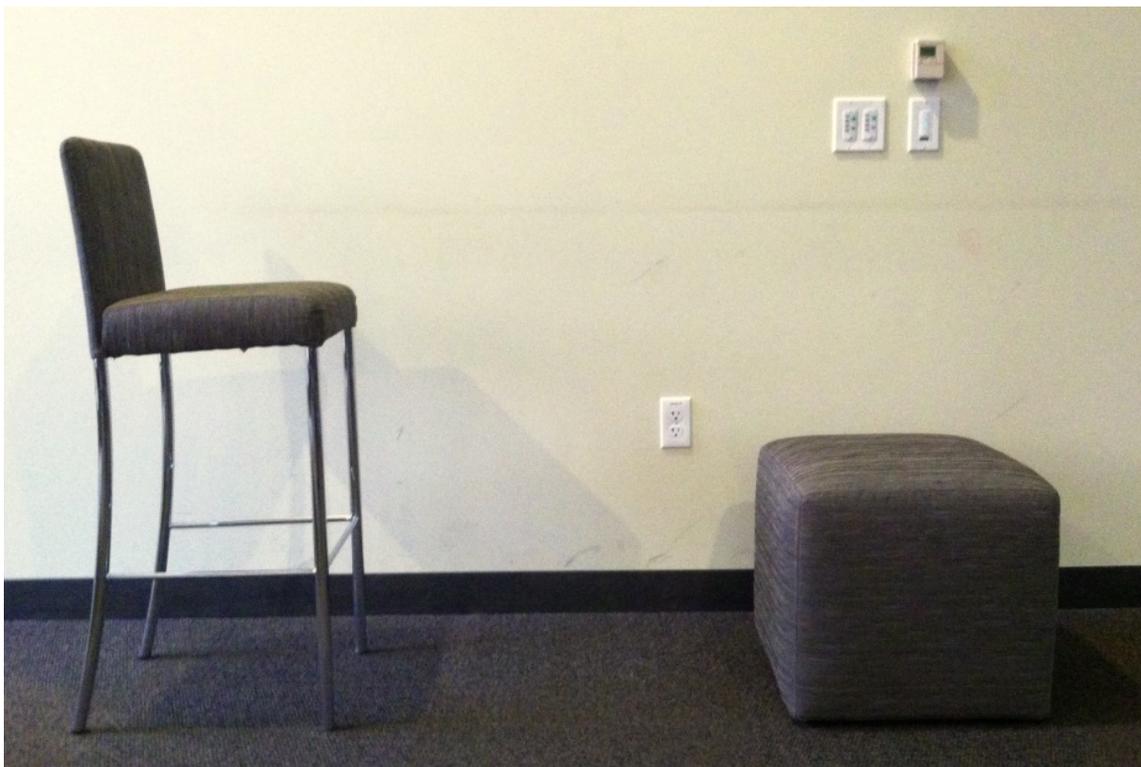


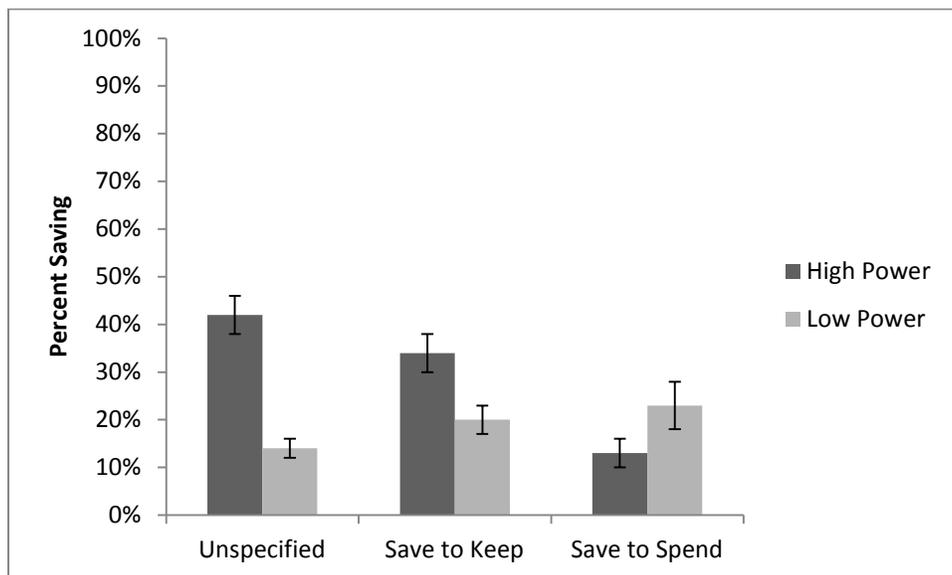
FIGURE 2**STUDY 3: SAVING TO KEEP VERSUS SPEND MONEY****PERCENT SAVING ACROSS ALL SIX CONDITONS**

FIGURE 3

STUDY 4: SECURE VERSUS UNSECURE POSITION OF POWER

PERCENT SAVING ACROSS ALL FOUR CONDITIONS

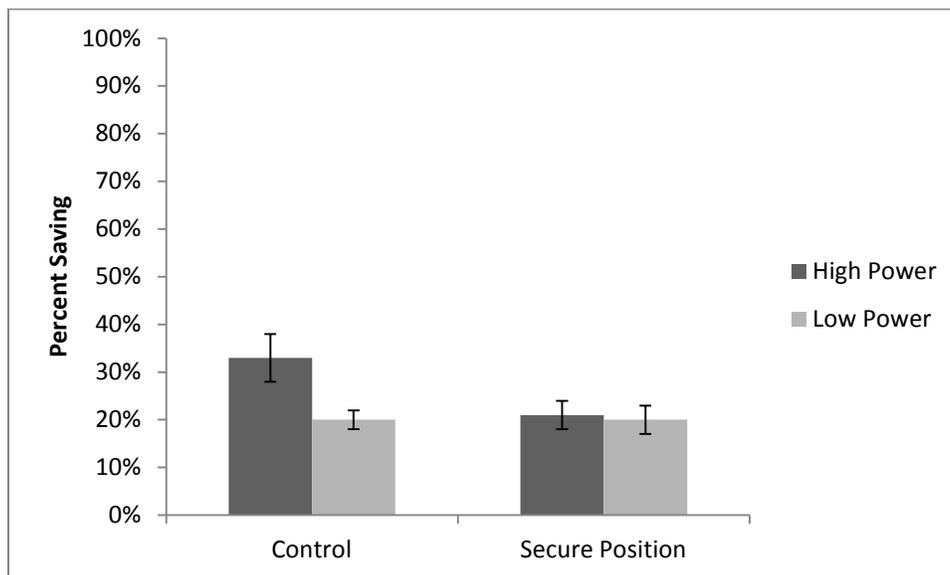


FIGURE 4

STUDY 4: SECURE VERSUS UNSECURE POSITION OF POWER

MODERATED MEDIATION MODEL

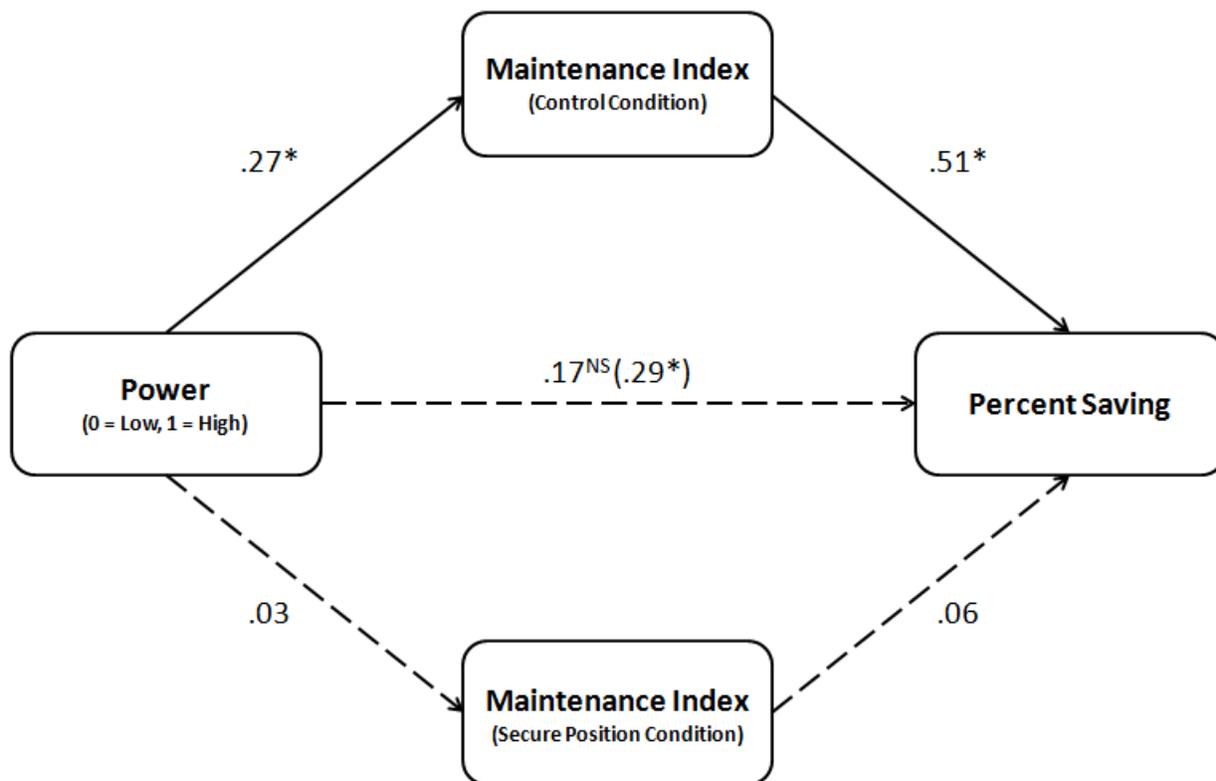


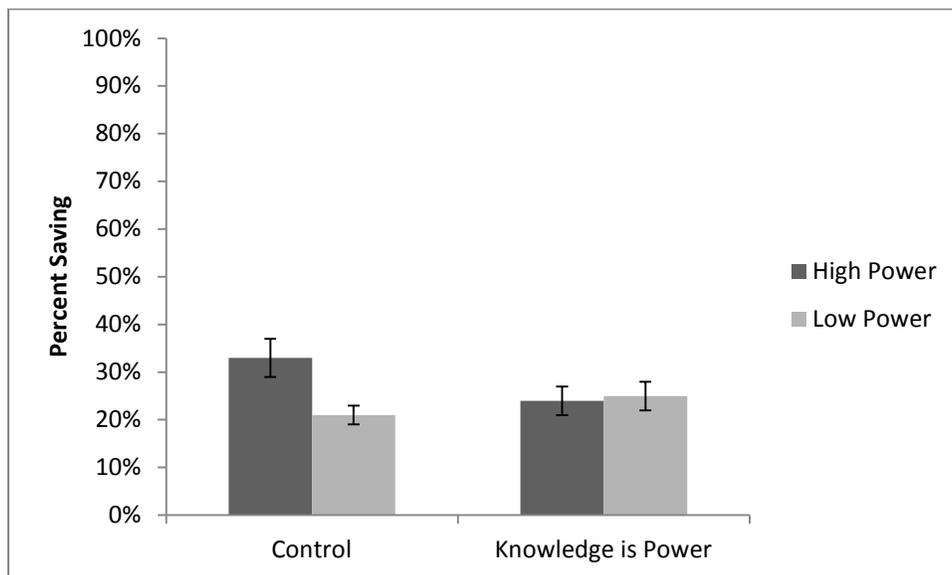
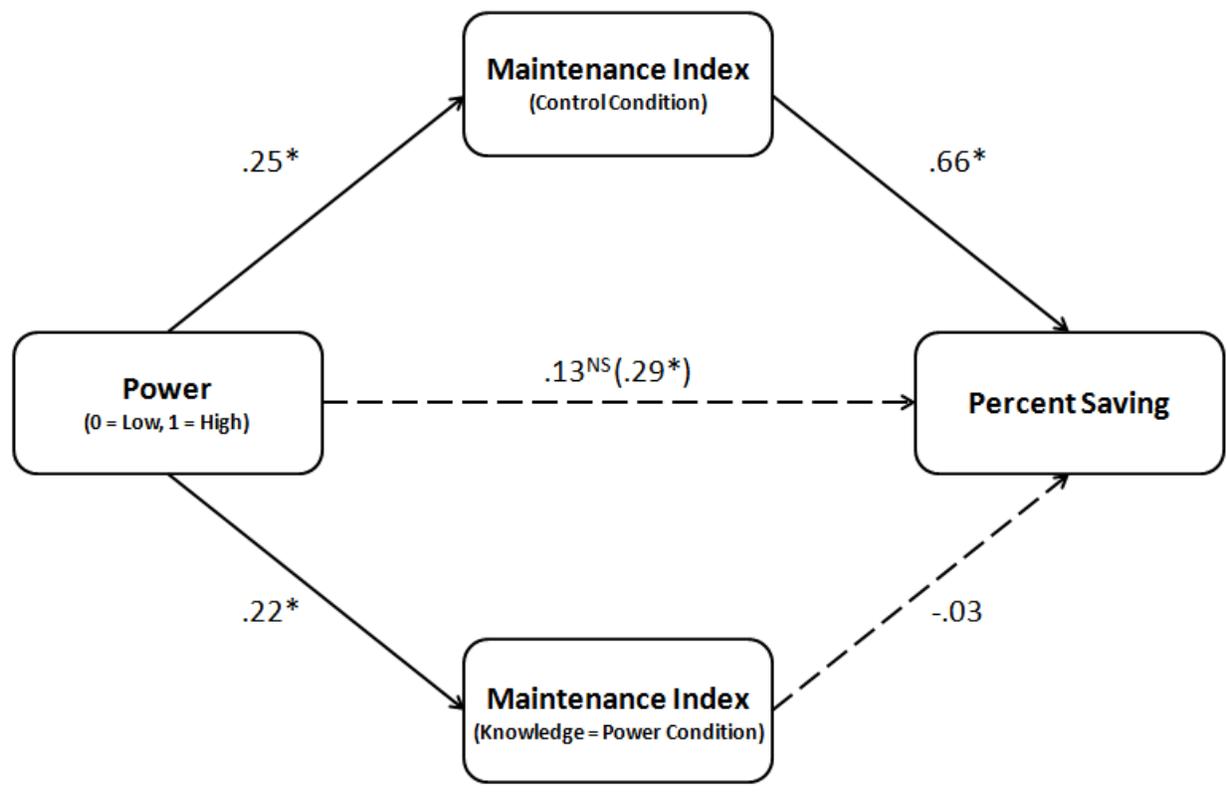
FIGURE 5**STUDY 5: RESOURCE NEEDED FOR POWER: MONEY VERSUS KNOWLEDGE****PERCENT SAVING ACROSS ALL FOUR CONDITIONS**

FIGURE 6

STUDY 5: RESOURCE NEEDED FOR POWER: MONEY VERSUS KNOWLEDGE
MODERATED MEDIATION MODEL



HEADINGS LIST

1) CONCEPTUAL BACKGROUND

1) STUDY 1: THE EFFECT OF FEELING POWERFUL ON SAVING

- 2) Overview and Design
- 2) Participants and Procedure
- 2) Results and Discussion

1) STUDY 2: FEELING POWERFUL AND REAL SAVING BEHAVIOR

- 2) Overview and Design
- 2) Participants and Procedure
- 2) Results and Discussion

1) STUDY 3: SAVING TO KEEP VERSUS SPEND MONEY

- 2) Overview and Design
- 2) Participants and Procedure
- 2) Results and Discussion

1) STUDY 4: SECURE VERSUS UNSECURE POSITION OF POWER

- 2) Overview and Design
- 2) Participants and Procedure
- 2) Results and Discussion

1) STUDY 5: RESOURCE NEEDED FOR POWER: MONEY VERSUS KNOWLEDGE

- 2) Overview and Design
- 2) Participants and Procedure
- 2) Results and Discussion

1) GENERAL DISCUSSION

- 2) Theoretical Contributions
- 2) Practical Contributions
- 2) Caveats and Calls for Future Research