Running head: MONEY, SAVORING, AND HAPPINESS

Money Giveth, Money Taketh Away: The Dual Effect of Wealth on Happiness

Jordi Quoidbach[1*]

Elizabeth W. Dunn[2]

K.V. Petrides[3]

Moïra Mikolajczak[4,5]

[1] University of Liège, Belgium

[2] University of British Columbia, Canada

[3] University College London, England

[4] Université catholique de Louvain, Belgium ; [5] Belgian National Fund for Scientific Research

WORD COUNT = 2,518

*All correspondence should be directed to:

Jordi Quoidbach
Personality & Individual Differences Unit
University of Liège
5 Bd. du Rectorat, 4000 Liège
Belgium
Tel. 0032 (0)4 366 2008
E-mail: jquoidbach@ulg.ac.be

Abstract

The present study provides the first evidence that money impairs people's ability to savor everyday positive emotions and experiences. In a sample of working adults, wealthier individuals reported lower savoring ability. Moreover, the negative impact of wealth on savoring undermined the positive effects of money on happiness. Supporting the causal influence of money on savoring, experimentally exposing participants to a reminder of wealth produced the same deleterious effect on savoring as did actual individual differences in wealth. Finally, moving beyond self-report, participants exposed to a reminder of wealth spent less time savoring a piece of chocolate and exhibited reduced enjoyment of it. The present research supplies evidence for the previously untested notion that having access to the best things in life may actually undercut the ability to reap enjoyment from life's small pleasures.

Can experiencing the best life has to offer undermine one's ability to savor everyday joys? This question springs from one of the most puzzling findings uncovered by well-being research: that objective life circumstances explain little of the variance in happiness (Lyubomirsky, Sheldon, & Schkade, 2005). In particular, income appears to exert a surprisingly modest impact on happiness (e.g., Aknin, Norton, & Dunn, in press), especially in wealthy societies (Diener & Oishi, 2000; Veenhoven, 1991). Although a number of explanations have been proposed for the weakness of the money-happiness relationship (e.g., Dunn, Aknin, & Norton, 2008), one of the most intriguing—but untested—explanations lies in what Gilbert (2006) termed the *experience-stretching hypothesis*. According to this perspective, experiencing the best things in life—such as surfing Oahu's famous North Shore or dining at Manhattan's four-star restaurant Daniel—may actually mitigate the delight one experiences in response to the more mundane joys of life, such as sunny days, cold beers, and chocolate bars (Gilbert, 2006; Parducci, 1995).

Wealth, of course, opens the door to a wide range of experiences, from luxury travel and fine dining to lattes and pedicures. Indeed, just thinking about wealth may increase perceived access to such enjoyable experiences, introducing the risk that everyday pleasures will be taken for granted. Consistent with this reasoning, research has demonstrated that even subtle reminders of wealth can exert profound effects on thought and behavior; in particular, priming people with the concept of money or wealth appears to increase feelings of self-sufficiency (Vohs, Mead, & Goode, 2006, 2008). This suggests that merely thinking about money may lead people to believe that any experiences they desire are potentially obtainable. Unfortunately, such perceived abundance may run counter to appreciating pleasurable experiences. In one of the few studies on this topic, Kurtz (2008) found that college seniors derived greater happiness from the final weeks of college when they were led to feel that graduation was impending, suggesting that scarcity may increase savoring. Savoring is a

form of emotion regulation used to prolong and enhance positive emotional experiences (Bryant, 1989, 2003). Researchers have identified four common strategies—that can be employed alone or in combination—to savor a positive event, including displaying positive emotions nonverbally, staying present in the moment, thinking about the event before and afterward, and telling others (Tugade & Fredrickson, 2007; Quoidbach, 2009).

In the present research, we hypothesized that savoring may be undermined by financial wealth, due to the abundance of pleasurable experience wealth promises; providing some initial support for this hypothesis, we observed a significant negative correlation (r = -.21) between income and self-reported savoring ability in a preliminary study. Therefore, we attempted to replicate this finding, while investigating the causal relationship between wealth and savoring. Because the ability to savor promotes happiness (Bryant, 1989, 2003; Bryant, Smart, & King, 2005; Meehan, Durlak, & Bryant, 1993; Quoidbach, 2009; Tugade & Fredrickson, 2007), we further hypothesized that the negative effect of wealth on savoring may counteract the other emotional benefits that money provides, thereby diminishing the overall relationship between money and happiness. Thus, in Study 1 we examined the association between wealth and savoring ability, and tested whether the positive relationship between wealth and happiness is undermined by the negative effect of wealth on savoring. In addition, we manipulated the salience of money to test whether reminders of wealth reduce self-reported savoring ability; addressing an alternative causal path, we examined whether savoring ability reduces the desire to pursue wealth. In Study 2, we moved beyond self-report and tested whether thinking about money leads people to exhibit reduced savoring behavior when presented with one of the little joys of daily life.

Study 1

Method

Participants

We recruited 374 adult employees from Belgium's University of Liège, from custodial staff to senior administrators, for an online survey. Twenty-three participants refused to answer money-related items, leaving a total of 351 participants (66% females; ages 21-89 years, M_{age} = 37.9; *SD* = 12.9).

Procedure

To test whether thinking about money has a causal impact on savoring, we randomly assigned participants to a money prime or control condition. In the money prime condition, the questionnaire displayed a photograph of a large stack of Euro bills, which was blurred beyond recognition in the control condition; this mental priming technique has been used successfully to heighten the accessibility of the concept of money at a level below awareness (Vohs, et al., 2006, 2008). The questionnaire included items measuring savoring ability, happiness, desire for future wealth, and current wealth (in that order).

Measures

Savoring. Participants completed the Emotion Regulation Profile-Revised, a vignette-based instrument measuring individuals' typical ability to regulate both negative and positive emotions; this measure has good psychometric properties, including strong convergent, divergent, and predictive validity (Nelis, Quoidbach, Hansenne, & Mikolajczak, submitted; Nelis, Quoidbach, Mikolajczak, & Hansenne, 2009 see also Mikolajczak, Nelis, Hansenne, & Quoidbach, 2008). Of interest in the present study was the savoring positive emotion scale, which includes six detailed descriptions of situations eliciting contentment, joy, awe, excitement, pride, and gratitude, respectively. For example, participants are asked to imagine finishing an important task (contentment), spending a romantic weekend away (joy), or discovering an amazing waterfall while hiking (awe). Each scenario is followed by eight possible reactions, including the four savoring strategies described in the introduction (i.e.,

displaying positive emotions, staying present, anticipating/reminiscing, and telling others). Participants select the response(s) that best characterize their typical behavior in each situation. They receive one point for each savoring strategy selected, and scores across the different scenarios are then aggregated into an overall savoring score ($\alpha = .83$).

Happiness. We assessed happiness using the well-validated Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999), composed of four 7-point items ($\alpha = .84$).

Desire for wealth. On two open-ended items, participants indicated their ideal income and how much money they would need to win in the lottery to live the life of their dreams, allowing us to assess whether savoring ability was related to desire for wealth.

Current wealth. Participants reported their life savings on a 7-point scale, ranging from 1 (below 1,000€) to 7 (over 75,000€), as well as reporting their monthly income after taxes. These items, which were positively correlated ($r = .38$, $p < .001$), were standardized and aggregated to create an overall wealth index.

Results

Current wealth, money prime, and savoring

To test whether wealth and the money prime produced similar, deleterious effects on savoring, we entered participants' current wealth and experimental condition into a regression predicting savoring scores. Supporting our hypothesis, participants' wealth significantly predicted lower ability to savor positive emotions, $\beta = –.17$, $t(348) = 3.18$, $p < .01$. Likewise, compared to the control group, participants assigned to the money prime condition exhibited significantly lower savoring scores, $\beta = –.11$, $t(348) = 1.99$, $p < .05$. Thus, both individual differences in wealth and a situational prime designed to increase thoughts of wealth produced similar negative effects, suggesting that thinking about wealth plays a causal role in impairing savoring.

Savoring and desire for wealth

To test an alternative causal pathway—that savoring increases contentment with one's existing situation, reducing the desire to pursue money—we entered savoring ability scores into regressions predicting participants' desired incomes and lottery winnings.[1] Savoring ability did not predict desired income, $\beta = -.08$, $t(333) = 1.47$, $p = .14$, or lottery winnings, $\beta = .08$, $t(302) = 1.37$, $p = .17$.

Current wealth, savoring, and happiness

To investigate how wealth and savoring relate to happiness, we first entered savoring ability into a regression predicting happiness, controlling for experimental condition. Dovetailing with past research, savoring ability positively predicted happiness ($\beta = .34$, $p < .001$). Replacing savoring ability with wealth in this regression, we found a modest, but reliable relationship between wealth and happiness ($\beta = .12$, $p < .03$), consistent with previous research. Because wealth was negatively related to savoring (as discussed above) and savoring was positively related to happiness, we tested whether savoring suppressed the relationship between wealth and happiness. A suppressor is "a variable which increases the predictive validity of another variable…by its inclusion in a regression equation" (Conger, 1974, p. 36). Following recommendations of MacKinnon, Krull, and Lockwood (2000), we performed mediation analyses to determine whether the effect of wealth on happiness was weakened by the ability to savor positive emotion (Baron & Kenny, 1986). As depicted in Figure 1, when savoring ability was included along with wealth in a regression predicting happiness, wealth became a stronger predictor of happiness ($\beta = .18$, $p < .001$). A Sobel test

[1] Given the significant effect of the money prime manipulation, all subsequent analyses were computed controlling for experimental condition.

confirmed that savoring ability suppressed the relationship between wealth and happiness (z = 2.91, $p < .01$).

Discussion

Study 1 suggests that wealth may impair savoring; both individual differences in wealth and a situational reminder of wealth produced similar deleterious effects on savoring. Conversely, the ability to savor positive emotions was unrelated to the desire for wealth. The present findings further demonstrate that the emotional benefits of wealth are undermined by the negative impact of wealth on savoring; controlling for savoring ability significantly increased the relationship between wealth and happiness. Thus, wealth may fail to deliver the happiness one might expect because of its detrimental consequences for savoring. Given long-standing debates regarding the extent to which people can accurately introspect about their own emotion regulation styles (e. g., Salovey & Grewal, 2005), however, we sought to replicate our central finding—that wealth reduces savoring—using a behavioral measure of savoring. Because the wealth prime produced the same effect as actual wealth on savoring in Study 1, while permitting causal inferences, we used priming to investigate whether wealth reminders could produce observable variations in savoring one of life‘s small delights: chocolate.

Study 2

Method

Participants

Forty students (43% males, M_{age} = 23.0) on the University of British Columbia campus volunteered for a taste-test study.

Procedure

Participants completed a brief questionnaire assessing demographics and attitudes toward chocolate. The questionnaire was presented in a binder, and on the adjacent page were materials from an "unrelated study" displaying a picture of Canadian money or neutral photo. Next, participants were instructed to eat a piece of chocolate and, when ready, to complete a brief follow-up questionnaire.

Savoring

To create behavioral measures of savoring, two observers (who were blind to condition) surreptitiously watched the participant. Because savoring food entails staying present in the moment, taking the time to appreciate and reap pleasure from it (Macht, Meininger, & Roth, 2005), we asked the observers to measure the amount of time participants spent eating the chocolate (using stopwatches). To capture the extent to which participants displayed positive emotions while eating, observers rated how much enjoyment participants displayed on a scale from 1 (not at all) to 7 (a great deal). Given that observers showed high correspondence in measuring eating time ($r = .99$, $p < .01$) and rating enjoyment ($r = .71$, $p < .01$), their scores were averaged.

Results and discussion

Because females spent significantly more time savoring the chocolate than males ($\beta = .53$, $p < .01$), we conducted analyses of covariance comparing participants' eating time and enjoyment between conditions, controlling for gender, as well as baseline attitudes toward chocolate. Compared to those in the control condition, participants in the money prime condition spent less time eating the chocolate, $F(1, 31) = 6.02$, $p = .02$, and displayed less enjoyment, $F(1, 35) = 9.85$, $p < .01$ (see Table 1). Thus, a simple reminder of wealth undermined participants' ability to savor the pleasurable experience of eating chocolate, as they devoted less time to eating it and exhibited lower levels of enjoyment.

General Discussion

The present research provides the first evidence that money interferes with people's ability to savor positive emotions and experiences. Examining a large sample of working adults, we found that wealthier individuals reported lower savoring ability. Indeed, the negative impact of money on savoring undercut the other emotional benefits provided by money. Supporting the causal influence of money on savoring, experimentally exposing participants to a reminder of wealth produced the same negative effect on savoring associated with actual wealth. Moving beyond self-report, we observed that a reminder of wealth led participants to devote less time to savoring a piece of chocolate and to exhibit reduced enjoyment from this small pleasure of everyday life.

Thus, we found converging evidence for our hypothesis using (1) a broad self-report measure, which assessed the use of four savoring strategies across six different scenarios and (2) a more focused behavioral measure of savoring that captured the extent to which participants stayed present and displayed positive emotion to prolong and enhance the experience of eating chocolate. Because our behavioral measure was not designed to capture the interpersonal or intertemporal components of savoring, it would be interesting to test whether wealth produces observable differences in the extent to which people reminisce and tell others about positive experiences.

Taken together, our findings supply evidence for the provocative and intuitively appealing—yet previously untested—notion that having access to the best things in life may actually undermine the ability to reap enjoyment from life's small pleasures. Going beyond past theorizing, our research demonstrates that a simple reminder of wealth produces the same deleterious effects as actual wealth, suggesting that *perceived* access to pleasurable experiences may be sufficient to impair everyday savoring. In other words, one need not

actually visit the pyramids of Egypt or spend a week in the legendary spas of Banff—simply knowing that these peak experiences are readily available may increase the tendency to take the small pleasures of daily life for granted.

This perspective is consistent with the intriguing theoretical notion that hedonic adaptation may occur not only in response to past experiences, but also in response to anticipated future experiences (Frederick & Loewenstein, 1999). Regarding past experiences, research has begun to examine individual differences in the extent to which memories of the past enhance or diminish joy in the present (Liberman, Boehm, Lyubomirsky, & Ross, in press). Thus, an important research goal lies in delineating when, how, and for whom awesome life experiences—in the past and future—shape the extent to which individuals savor diverse pleasures in the present.

Our findings also contribute to a new wave of research on money and happiness; whereas a great deal of previous research has documented the magnitude of the relationship between money and happiness (see Diener & Biswas-Diener, 2002 for a review), researchers are increasingly moving toward examining when and why money promotes happiness, in order to understand their surprisingly small interrelationship (e.g., Dunn, Aknin, & Norton, 2008; Van Boven, 2005). Our studies provide a novel contribution by demonstrating that the emotional benefits that money gives with one hand (i.e., access to pleasurable experiences), it takes away with the other by undercutting the ability to relish the small delights of daily living.

References

Aknin, L. B., Norton, M. I., & Dunn, E. W. (in press). From wealth to well-being? Money matters, but less than people think. *Journal of Positive Psychology*.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.

Bryant, F. B. (1989). A four-factor model of perceived control: Avoiding, coping, obtaining, and savoring. *Journal of Personality, 57*, 773-797.

Bryant, F. B. (2003). Savoring Beliefs Inventory (SBI): A scale for measuring beliefs about savouring. *Journal of Mental Health, 12*, 175-196.

Bryant, F. B., Smart, C. M., & King, S. P. (2005). Using the past to enhance the present: Boosting happiness through positive reminiscence. *Journal of Happiness Studies, 6*, 227-260.

Conger, A. J. (1974). A revised definition for suppressor variables: A guide to their identification and interpretation. *Educational and Psychological Measurement, 34*, 35-46.

Diener, E., & Biswas-Diener, R. (2002). Will money increase subjective well-being? *Social Indicators Research, 57*, 119-169.

Diener, E., & Oishi, S. (2000). Money and happiness: Income and subjective well-being across nations. In E. Diener & E. M. Suh (Eds.), *Subjective well-being across cultures* (pp. 185-219). Cambridge, M.A: MIT Press.

Dunn, E. W., Aknin, L., & Norton, M. I. (2008). Spending money on others promotes happiness. *Science, 319*, 1687-1688.

Frederick, S., & Loewenstein, G. (1999). Hedonic adaptation in D. Kahneman, E. Diener & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 302-329). New York: Russell Sage Foundation.

Gable, S. L., Gonzaga, G., & Strachman, A. (2006). Will you be there for me when things go right? Social Support for Positive Events. *Journal of Personality and Social Psychology, 91,* 904-917.

Gilbert, D. (2006). *Stumbling on happiness*. New York: Knopf.

Kurtz, J. (2008). Looking to the future to appreciate the present: The benefits of perceived temporal scarcity. *Psychological Science, 19,* 1238-1241.

Liberman, V., Boehm, J.K., Lyubomirsky, S., & Ross, L.D. (in press). Happiness and memory: Affective significance of endowment and contrast. *Emotion*.

Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social indicators research, 46,* 137-155.

Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005). Pursuing happiness: The architecture of sustainable change. *Review of General Psychology, 9,* 111-131.

MacKinnon, D. P., Krull, J. L., & Lockwood, C. M. (2000). Equivalence of the mediation, confounding and suppression effect. *Prevention Science, 1*, 173-181.

Macht, M., Meininger, J., & Roth, J. (2005). The Pleasures of eating: A qualitative analysis. *Journal of Happiness Studies, 6*, 137-160.

Meehan, M., Durlak, J., & Bryant, F. B. (1993). The relationship of social support to positive life events and subjective mental health in adolescents. *Journal of Community Psychology, 21,* 49-55.

Mikolajczak, M., Nelis, D., Hansenne, M., & Quoidbach, J. (2008). If you can regulate sadness, you can probably regulate shame: Associations between trait emotional

intelligence, emotion regulation and coping efficiency across discrete emotions. *Personality and Individual Differences, 44*, 1356-1368.

Nelis, D., Quoidbach, J., Hansenne, M., & Mikolajczak, M. (submitted). Measuring individual differences in emotion regulation: The Emotion Regulation Profile-Revised (ERP-R), *Journal of Research in Personality*.

Nelis, D., Quoidbach, J., Mikolajczak, M., & Hansenne, M. (2009). Increasing emotional intelligence: (How) is it possible? *Personality and Individual Differences, 47*, 36-41.

Parducci, A. (1995). *Happiness, pleasure and judgment: The contextual theory and its applications*. Mahwah, NJ: Erlbaum.

Quoidbach, J. (2009). La régulation des émotions positives *[Positive emotion regulation]*. In M. Mikolajczak, J. Quoidbach, I. Kotsou & D. Nélis (Eds.), *Les compétences émotionnelles [Emotional competences]*(pp. 193-219). Paris: Dunod.

Salovey, P., & Grewal, D. (2005). The science of emotional intelligence. *Current Directions in Psychological Science, 14*, 281-285.

Tugade, M., & Fredrickson, B. (2007). Regulation of positive emotions: Emotion regulation strategies that promote resilience. *Journal of Happiness Studies, 8*, 311-333.

Van Boven, L. (2005). Experientialism, materialism, and the pursuit of happiness. *Review of General Psychology, 9*, 132-142.

Veenhoven, R. (1991). Is happiness relative? *Social Indicators Research, 24*, 1-34.

Vohs, K. D., Mead, N. L., & Goode, M. R. (2006). The psychological consequences of money. *Science, 314*, 1154-1156.

Vohs, K. D., Mead, N. L., & Goode, M. R. (2008). Merely activating the concept of money changes personal and interpersonal behavior. *Current Directions in Psychological Science, 17*, 208-212.

Authors' Note

The French Community of Belgium (ARC 06/11-340) and Social Sciences and Humanities Research Council of Canada supported this research. We thank Dan Gilbert.

Table 1

Means and standard deviations of savoring indicators in the two experimental conditions

	Time eating (in seconds)		Observers' rating of enjoyment	
	Mean	S.D.	Mean	S.D.
Money prime	32.0	14.4	3.6	1.2
Control	45.4	29.0	5.0	1.2

Figure Caption

Figure 1. Results of regression analyses testing the suppressing effect of savoring in the relationship between wealth and happiness. Asterisks indicate coefficients significantly different from zero, *$p < .05$; **$p < .01$. When savoring is included, the initial beta weight increases from β = .12 to β = .18.