

The Pursuit of Happiness: Time, Money, and Social Connection

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Psychological Science
 21(9) 1348–1354
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sagepub.com/journalsPermissions.nav
 DOI: 10.1177/0956797610380696
<http://pss.sagepub.com>


Abstract

Does thinking about time, rather than money, influence how effectively individuals pursue personal happiness? Laboratory and field experiments revealed that implicitly activating the construct of time motivates individuals to spend more time with friends and family and less time working—behaviors that are associated with greater happiness. In contrast, implicitly activating money motivates individuals to work more and socialize less, which (although productive) does not increase happiness. Implications for the relative roles of time versus money in the pursuit of happiness are discussed.

Keywords

happiness, hedonics, time, money, connection

Received 8/4/09; Revision accepted 2/16/10

When I surveyed a sample of 127 American university students about their feelings related to money, “happiness” was the most frequently cited emotion. This reflects the common assumption that money is critical for pursuit of the American Dream and individuals’ inalienable right to be happy. However, psychologists have found a weak relationship between money and happiness (Diener & Biswas-Diener, 2002; Frey & Stutzer, 2002; Kahneman, Krueger, Schkade, Schwarz, & Stone, 2006), and economists have found that Americans’ happiness levels have remained largely constant over the last 50 years despite increases in the country’s financial wealth over the same time period (Easterlin, 1995). How can researchers reconcile the general belief that money and happiness are closely associated with empirical demonstrations suggesting the two are largely unrelated?

Incorporating the role of time—the other principle resource that governs daily behavior—may shed light on this question. For instance, research exploring national allocations of time reveals that as wealth in the United States has increased, so has the number of hours Americans spend working, and happiness levels have remained unchanged. In contrast, in response to economic gains, Europeans have decreased the number of hours spent at work, and happiness levels in Europe have increased (Layard, 2005). Ignoring the role of time may, therefore, resign researchers to an impoverished understanding of happiness.

Compared with the considerable amount of work exploring the relationship between money and happiness (Aknin, Norton, & Dunn, 2009), surprisingly little research has focused on the

relationship between time and happiness. The research reported in this article therefore focused on the influence of both time and money. However, instead of looking at the effect of having each resource, it examined the broader impact of merely thinking about one resource versus the other. One field experiment and two laboratory experiments tested whether directing attention to time (vs. money) can improve Americans’ pursuit of happiness by driving individuals to allocate their time in happier ways—with loved ones, rather than working.

Work is necessary to pay the bills and contributes to an individual’s sense of productivity and self-esteem (Reis, Sheldon, Gable, Roscoe, & Ryan, 2000), but the number of hours Americans spend working frequently exceeds that required to provide these benefits (Layard, 2005). Moreover, Americans’ increasingly long workdays cut into time spent connecting with others—fostering relationships with romantic partners, friends, and family. And it is these relationships that are essential for personal happiness (Diener & Seligman, 2002; Ryan & Deci, 2001). For instance, people are most happy when socializing and during intimate relations (i.e., connecting activities) and least happy when working and commuting (i.e., independent activities; Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004). Similarly, students’ happiness levels were found

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to exceed their personal average while they were interacting with friends, but dropped below average while they were doing schoolwork (Csikszentmihalyi & Hunter, 2003). Therefore, it is critical to identify factors that influence individuals' tendencies to engage in these often competing activities.

Building on evidence demonstrating the potential influence of redirecting attention on behavior (Aarts & Dijksterhuis, 2003; Bargh, Chen, & Burrows, 1996), I propose that directing attention to each resource (time or money) may influence how individuals choose to spend their days. Specifically, because time is laden with greater personal meaning than money (Mogilner & Aaker, 2009), thinking about time is more likely to encourage social engagement. Supporting this prediction, an investigation into the psychology of mountaineers found that when they were on the brink of death, their priorities tended to shift away from professional ambitions toward more emotionally enriching human relationships (Loewenstein, 1999). In less extreme circumstances that also draw attention to one's remaining time (such as natural aging), people become more compelled to spend time with close, emotionally fulfilling people than with less-familiar, albeit interesting, people (Fredrickson & Carstensen, 1990). But individuals may not need a near-death experience or old age to become more socially inclined; a simple shift in focus from dollars to hours may be sufficient.

Whereas time is tied to emotional fulfillment, money is tied to utility. Money allows individuals to acquire necessities for survival, minimizing their need to depend on and get along with others (Zhou, Vohs, & Baumeister, 2009). Not only does money promise self-sufficiency, but thinking about money leads individuals to disconnect interpersonally. The mere mention of money makes people less likely to help others and donate to charity—two behaviors that are tied to personal happiness (Kasser & Sheldon, 2002; Liu & Aaker, 2008; Lyubomirsky, Sheldon, & Schkade, 2005; Vohs, Mead, & Goode, 2006). The mention of money may not just reduce individuals' tendencies to help strangers; it may also thwart inclinations to enjoy the company of loved ones.

Although money dominates many Americans' pursuit of happiness, this research explored the effects of redirecting individuals' attention toward time. I hypothesized that (compared with thinking about money) thinking about time would lead people to spend less time working and more time connecting with those they love.

Experiment 1a: Daily Activities

Method

A national sample of 318 adults (67% female and 33% male; ages 18–75 years, $M = 35$ years) participated in this online study for the chance to win \$100. Participants were randomly assigned to one of six conditions in a 3 (prime: time vs. money vs. control) \times 2 (target: self vs. other) between-subjects design.

Participants were first given a scrambled-words task that exposed them to time-related, money-related, or neutral words (Mogilner & Aaker, 2009). Specifically, participants were given a list of word sets that each contained four words, and they were instructed to use three of the words in each set to create a sentence. Participants were allowed 3 min to create as many sentences as possible. For example, participants in the time condition were asked to construct a sentence from the word set “sheets the change clock,” whereas participants in the money condition were presented with the word set “sheets the change price.” For participants in the control condition, the corresponding word set was “sheets the change socks.”

Participants were then asked to complete an ostensibly unrelated questionnaire in which they were presented with a list of activities (order counterbalanced across subjects) that comprise people's daily lives (Kahneman et al., 2004). Participants in the self-target condition were asked to use 7-point scales to rate the extent to which they planned to engage in each activity over the next 24 hr (from 1, *not at all*, to 7, *very much*), as well as how happy doing that activity would make them (from 1, *not at all happy*, to 7, *very happy*). Participants in the other-target condition were instructed to indicate the extent to which they thought a typical American planned to engage in each activity, and how happy that activity would make a typical American.

Results and discussion

The happiness ratings were in line with the results from prior research (Kahneman et al., 2004). Irrespective of whether participants reported the activities associated with happiness for themselves or for a typical American, socializing ($M = 5.23$, $SD = 1.39$) and engaging in intimate relations ($M = 5.51$, $SD = 1.65$) were among the activities associated with the greatest happiness, whereas working ($M = 3.54$, $SD = 1.71$) and commuting ($M = 2.66$, $SD = 1.58$) were the two activities associated with the least happiness.¹ Notably, prime condition did not influence participants' assessments of each activity's association with happiness ($ps > .10$).

A 3 (prime) \times 2 (target) multivariate analysis of covariance (MANCOVA) was therefore conducted on participants' ratings of plans to socialize, engage in intimate relations, work, and commute; this analysis controlled for demographic variables that might influence individuals' daily temporal allocations (i.e., gender, age, being married, and having children). Significant Prime \times Target interactions were found for plans to socialize, $F(2, 308) = 7.25$, $p = .001$, $\eta_p^2 = .045$; to engage in intimate relations, $F(2, 308) = 5.28$, $p < .01$, $\eta_p^2 = .033$; and to work, $F(2, 308) = 4.08$, $p < .05$, $\eta_p^2 = .026$; there was also a marginal effect on commuting, $F(2, 308) = 2.80$, $p = .06$, $\eta_p^2 = .018$. Figure 1 displays the means for each condition, highlighting that the prime affected the time allocations only for participants planning their own day—but not for those imagining another person's day ($ps > .10$). This suggests that the effect of priming time or money was not due to semantic

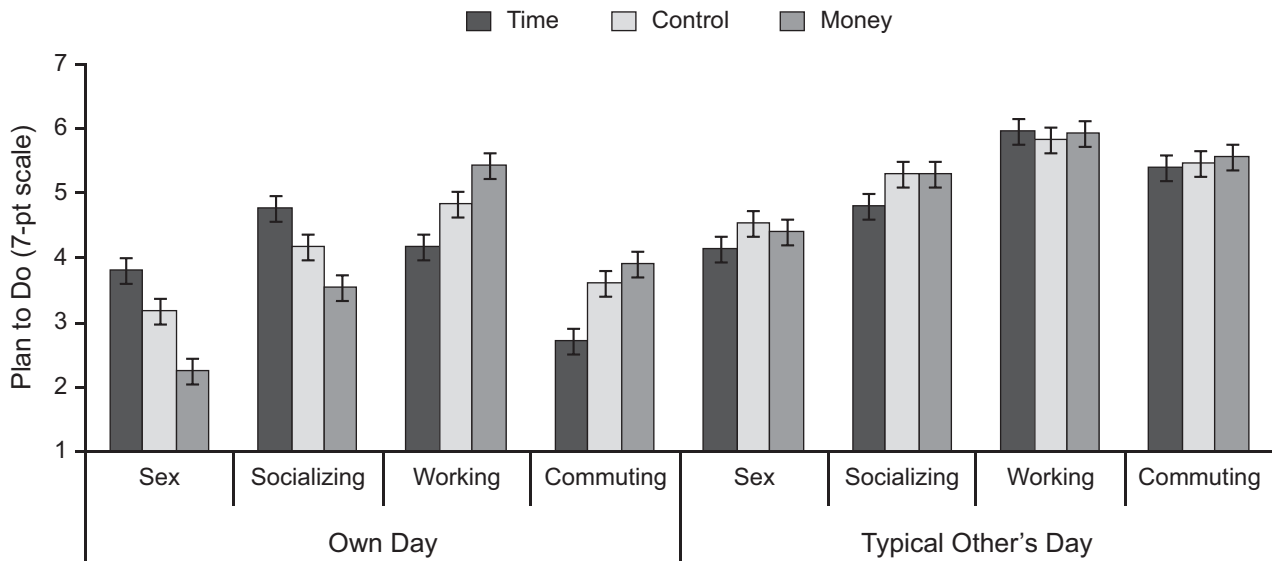


Fig. 1. Results from Experiment 1a: participants' mean ratings of the extent to which they planned to engage in various activities over the next 24 hr or thought a typical American planned to engage in these activities over the next 24 hr. Ratings are shown for intimate relations, socializing, work, and commuting, separately for individuals primed with time, money, or neither (control). Error bars represent ± 1 SEM.

association (i.e., time-related and money-related words simply being associated with certain activities more than others). Rather, the effect was tied to considering time and money as personal resources that govern one's daily behavior.

Pair-wise comparisons tested for each prime's influence on how individuals planned to spend their days (see Table 1). The results revealed that compared with the neutral prime, the time prime increased participants' intentions to socialize and engage in intimate relations (socially connecting activities that are associated with the highest levels of happiness), whereas the money prime reduced participants' intentions to engage in these activities. However, compared with the neutral prime, the time prime reduced participants' intentions to spend time working and commuting (activities associated with the least

happiness), whereas the money prime increased participants' intentions to work. The pattern found for these four activities was not found for the other activities measured ($ps > .10$).

The results of this experiment provide initial support for the hypothesis that increasing the relative salience of time motivates individuals to engage in socially connecting activities, whereas increasing the relative salience of money reduces this inclination.

Experiment 1b: Low-Income Population

A simplified version of Experiment 1a was conducted among low-income Americans to assess the generalizability of the effect. The objective was to determine whether the effect of priming time versus money on intentions to socialize versus

Table 1. Experiment 1a: Influence of Primes on Participants' Ratings of Their Intentions to Engage in Activities Associated With the Most and Least Happiness

Activity	Prime condition			<i>F</i> (2, 308)	<i>p</i>	η_p^2
	Time	Control	Money			
Highest happiness						
Intimate relations	3.80 _a (2.25)	3.18 _b (1.85)	2.24 _c (1.62)	8.91	.000	.055
Relaxing	4.58 _a (1.73)	4.71 _a (1.52)	4.16 _a (1.82)	1.60	.203	.010
Socializing	4.75 _a (1.63)	4.18 _b (1.63)	3.55 _c (1.66)	7.73	.001	.048
Lowest happiness						
Praying	3.18 _a (2.14)	3.19 _a (2.15)	3.02 _a (2.07)	0.01	.987	.000
Working	4.17 _a (2.21)	4.84 _b (2.01)	5.44 _c (1.81)	8.48	.000	.052
Commuting	2.72 _a (2.09)	3.60 _b (2.33)	3.91 _b (2.34)	7.22	.001	.045

Note. The table presents mean ratings, with standard deviations in parentheses. Note that although relaxing is an activity rated high on happiness, it is not socially connecting. Within each activity, means with different subscripts are significantly different, $p \leq .05$.

work would persist among individuals whose money is particularly scarce and whose daily plans are constrained by the need to make financial ends meet.

Method

Seventy-six individuals (72% female and 28% male; ages 26–72 years, $M = 51$ years) who qualified as low income (U.S. Department of Health and Human Services, 2009) participated in this online study in exchange for \$5. Participants were randomly assigned to one of the three prime conditions (time vs. money vs. control), which consisted of the same scrambled-words task as in Experiment 1a. After completing the priming task, participants were presented with an ostensibly unrelated questionnaire in which they were asked to use 7-point scales to rate the extent to which they planned to spend time socializing and working (order counterbalanced across participants) during the next 24 hr (from 1, *not at all*, to 7, *very much*). One week later (so as to eliminate any influence of the priming manipulation and to be dissociated from behavior during the 24 hr following the prime), participants were asked to reflect on their previous day and rate on 7-point scales the extent to which socializing and working made them feel happy (from 1, *not at all happy*, to 7, *very happy*).

Results and discussion

This low-income population reported that socializing ($M = 5.49$, $SD = 1.39$) made them feel happier than working ($M = 4.39$, $SD = 1.54$), $F(1, 73) = 31.26$, $p < .001$, $\eta_p^2 = .30$, irrespective of priming condition ($p > .10$).

A multivariate analysis of variance conducted on planned behavior revealed a significant effect of prime on the extent to which participants planned to socialize, $F(2, 73) = 4.15$, $p < .05$, $\eta_p^2 = .10$, and a marginal effect on the extent to which they planned to work, $F(2, 73) = 2.39$, $p = .06$, $\eta_p^2 = .06$. Table 2 presents the means and the results of pair-wise comparisons, which more precisely show that compared with participants in the control condition and those primed with money, those primed with time planned to spend more time socializing and marginally less time working. There were no significant differences in planned behavior between participants in the control condition and those primed with money.

These results suggest that even among individuals whose money is particularly scarce, increasing the salience of time is effective in motivating interpersonal connection. The lack of difference in planned behavior between participants who were primed with money and those in the control condition is perhaps more interesting. Although not conclusive, this finding suggests the possibility that low-income individuals are chronically reminded of money, because activating money did not influence their intended behavior, as it did for their higher-income counterparts in Experiment 1a.

Experiment 2: Time at the Café

A field experiment was conducted to test whether the priming effect is strong enough to play out in a noisy, real-life context in which a myriad of factors in addition to time or money govern people's thoughts and behaviors. By observing the amount of time individuals spent socializing versus working at a café, this study also addressed whether the subtle activation of time (vs. money) can influence not only how individuals plan to spend their time, but also how they actually spend their time.

Method

While entering a university campus café, 88 individuals (96% students; 58% female and 42% male; ages 18–53 years, $M = 23$ years) were recruited to participate in a questionnaire in exchange for a café gift card. This questionnaire included the scrambled-words task, which primed time, money, or neither. Participants were then left free to do as they pleased at the café while their behavior was coded by an inconspicuous observer. The observer, unaware of participants' randomly assigned condition, recorded the number of minutes each participant spent socializing (i.e., talking with another person at the café, talking on a cellular phone, or texting) and doing work (i.e., reading or working on a laptop). The observer was able to ascertain what participants were doing on their laptops and did not count any time they spent on social-networking sites as time spent working. Upon exiting the café (between 2 and 112 min later; $M = 32$ min), participants were presented with a second questionnaire in which they reported on 5-point scales the extent to which they felt happy and satisfied ($\alpha = .92$).

Table 2. Experiment 1b: Influence of Primes on Low-Income Participants' Ratings of Their Intentions to Socialize and Work

Activity	Prime condition			$F(2, 73)$	p	η_p^2
	Time	Control	Money			
Socializing	3.62 _a (1.94)	2.57 _b (1.36)	2.42 _b (1.58)	4.15	.020	.102
Working	4.34 _a (2.09)	5.33 _b (2.01)	5.38 _b (1.92)	2.39	.099	.062

Note. The table presents mean ratings, with standard deviations in parentheses. Within each activity, means with different subscripts are significantly different, $p \leq .05$.

Results and discussion

Controlling for the total amount of time each participant spent at the café, a MANCOVA revealed that prime condition had a significant influence on the proportion of time participants spent working, $F(2, 84) = 10.02, p < .001, \eta_p^2 = .19$, and socializing, $F(2, 84) = 5.99, p < .01, \eta_p^2 = .13$ (see Fig. 2). Pair-wise comparisons showed that individuals primed with time ($M = .60, SD = .44$) spent more of their time at the café socializing than those primed with money ($M = .25, SD = .32; p = .001$). Further, individuals primed with time ($M = .06, SD = .22$) spent less of their time working than those primed with money ($M = .41, SD = .44; p < .001$). Comparing the control condition with the time and money conditions suggested that the activation of time and the activation of money both played a role in the effect: Participants primed with money worked more than those in the control condition ($M = .13, SD = .29; p < .05$), and participants primed with time worked less than those in the control condition ($p < .05$). Additionally, participants primed with time socialized marginally more than those in the control condition ($M = .43, SD = .38; p < .10$), and participants primed with money socialized marginally less than those in the control condition ($p < .10$).

Examination of participants' reported happiness while exiting the café revealed that participants primed with time ($M = 4.17, SD = 1.37$) were happier than those primed with money ($M = 3.53, SD = 0.98$), $t(85) = 2.28, p < .05$. Participants primed with time were also happier than those in the control condition ($M = 3.50, SD = 0.77$), $t(85) = 2.42, p < .05$, but the happiness levels of those primed with money and those in the control condition did not differ significantly, $t(85) = 0.12, p = .90$. Moreover, a mediation analysis (Baron & Kenny, 1986) determined that the difference in happiness levels between participants primed with time and those primed with money was driven by the increased socializing caused by the

activation of time. Specifically, happiness was first regressed on whether participants were primed with time or money, $\beta = 0.26, t(57) = 2.04, p < .05$. Next, the proportion of time participants spent socializing was regressed on prime condition, $\beta = 0.42, t(57) = 3.50, p < .001$. Then, happiness was regressed on the proportion of time spent socializing, $\beta = 0.31, t(57) = 3.06, p < .01$. Finally, when happiness was regressed on both prime condition and socializing, the effect of the prime became insignificant, $\beta = 0.10, t(57) = 0.74, p > .10$, whereas the effect of socializing remained highly significant, $\beta = 0.39, t(57) = 2.88, p < .01$ —a pattern supportive of mediation (Sobel's $z = 2.49, p = .01$). These results suggest that increasing the relative salience of time (vs. money) can increase happiness by leading people to behave in more connecting ways.

General Discussion

Focusing on money motivates one to work more, which is useful to know when struggling to put in that extra hour of work to meet a looming deadline. However, passing the hours working (although productive) does not translate into greater happiness. Spending time with loved ones does, and a shift in attention toward time proves an effective means to motivate this social connection.

This work has interesting implications for the differences in happiness levels across countries and income brackets (Easterlin, 1995; Layard, 2005), and it suggests that the relevant question may be not how much money people have, but rather how much attention people put on money. The current findings hint that money may be more frequently primed in America than in Europe, and that interpersonal relationships and happiness suffer as a consequence.

These findings also represent a critical step for the burgeoning research on individuals' happiness, which has made impressive strides in identifying behavioral correlates of happiness

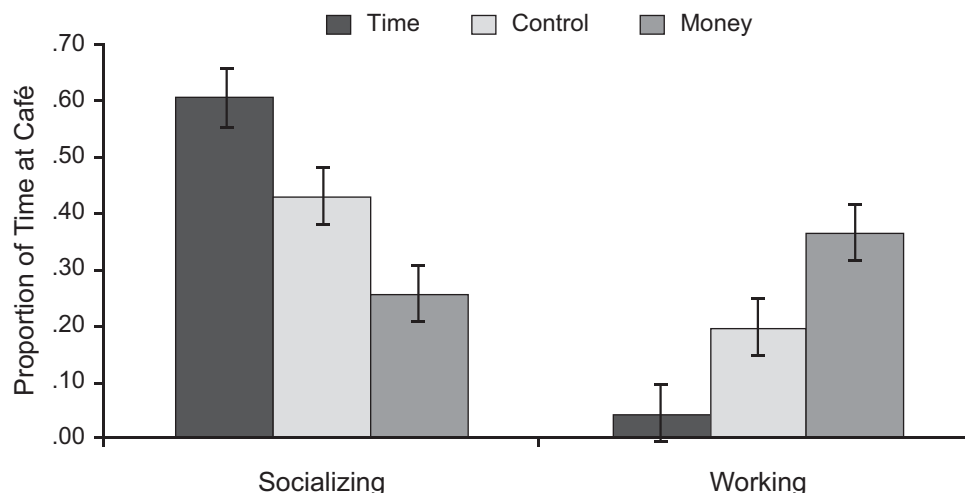


Fig. 2. Results from Experiment 2: mean proportion of total time at the café spent socializing and working among participants primed with time, money, or neither (control). Error bars represent ± 1 SEM.

(Dunn, Aknin, & Norton, 2008; Gilbert, 2006; Van Boven & Gilovich, 2003). Although such efforts offer invaluable insights into what makes people happy, happiness research has been largely descriptive thus far (Lyubomirsky et al., 2005). The current work goes farther by identifying a simple way to manipulate the psychological environment so as to influence individuals' tendencies to behave in ways that make them happier.

Experiment 1b explored the effect among low-income Americans—showing that the effect of priming time generalized to this group, but the effect of priming money did not. The question remains, however, as to how the effect would generalize to other populations. Would it persist in cultures in which attention to time is chronic, or among individuals who are taught to practice gratitude for the present moment, such as Buddhists? Would priming time instead increase time spent working among individuals whose work is a primary source of personal fulfillment and social connection? Further investigation into the process underlying the demonstrated effects would illuminate these potential boundary conditions.

Still, the message is clear: Despite the belief that money is the resource most central to Americans' pursuit of happiness, increased happiness requires a shift in attention toward time. This has been heard before, underlying such fables as Charles Dickens's *A Christmas Carol*, in which Scrooge becomes a happier man once he stops counting his coins following visits from the ghosts of Christmases past, present, and future. Necessarily, the current research provides empirical support for this frequently ignored lesson, and identifies a more feasible method (than inviting temporally imbued ghosts) to influence behavior. Simply increasing the relative salience of time (vs. money) can nudge someone to spend that extra hour at home rather than at the office, there finding greater happiness.

Acknowledgments

The author would like to thank Jennifer Aaker, Michael Norton, Itamar Simonson, Baba Shiv, Sheena Iyengar, Geeta Menon, Kathleen Vohs, and Gal Zauberman for their invaluable comments.

Declaration of Conflicting Interests

The author declared that she had no conflicts of interest with respect to her authorship or the publication of this article.

Note

1. In this experiment's sample, relaxing ($M = 5.40$, $SD = 1.55$), eating ($M = 5.17$, $SD = 1.39$), and using a computer ($M = 5.11$, $SD = 1.37$) were also reported to produce high levels of happiness; however, the analyses in this article focus on socializing and intimate relations because these activities involve connecting with others, which has consistently been demonstrated to be a key component of subjective well-being (Reis et al., 2000; Ryan & Deci, 2001).

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