Valuing Time Over Money Is Associated With Greater Happiness

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Abstract

How do the trade-offs that we make about two of our most valuable resources—time and money—shape happiness? While past research has documented the immediate consequences of thinking about time and money, research has not yet examined whether people's general orientations to prioritize time over money are associated with greater happiness. In the current research, we develop the Resource Orientation Measure (ROM) to assess people's stable preferences to prioritize time over money. Next, using data from students, adults recruited from the community, and a representative sample of employed Americans, we show that the ROM is associated with greater well-being. These findings could not be explained by materialism, material striving, current feelings of time or material affluence, or demographic characteristics such as income or marital status. Across six studies (*N*=4,690), we provide the first empirical evidence that prioritizing time over money is a stable preference related to greater subjective well-being.

In a typical day and across a lifetime, people face trade-offs between time and money. These trade-offs may play a role in major decisions such as whether to choose a higher paying career that demands longer hours (versus making less money and having more free time) and in mundane decisions, such as whether to spend a Saturday afternoon cleaning gutters (or paying someone else to do it). Over the years, the decisions that individuals make related to prioritizing time versus money may hold important implications for well-being.

Although time and money are largely interchangeable in the modern economy, a growing body of research suggests that people think about time and money in profoundly different ways (Mogilner, 2010; Zauberman & Lynch, 2005). Whereas thinking about money leads people to value productivity and independence, thinking about time leads people to prioritize social connections (Mogilner, 2010; Vohs, Mead & Goode, 2006; 2008). For example, after completing a scrambled-words task that implicitly activated the concept of time (versus money), individuals reported more desire to socialize and less desire to work (Mogilner, 2010). This research provides initial evidence that activating the concepts of time and money can have critical consequences for short-term decisions—with potential long-term consequences for well-being, although this link has not yet been explored. Thus, we sought to assess whether people who chronically prioritize time over money are happier than people who prioritize money over time.

From our perspective, the extent to which people prioritize time over money should be related to—but distinct from—materialism and material striving, which are both associated with lower well-being (Richins & Dawson, 1992; Kasser & Ryan, 1993; Roberts & Clement, 2007). Materialism is defined as the general importance that

individuals ascribe to the ownership and acquisition of material goods (Richins &

Dawson, 1992), and material striving is defined as having a pre-occupation with

accumulating wealth (Furnham, 1984). Whereas materialism and material striving

measures broadly capture individuals' absolute levels of interest in material things and

money, respectively, these materialism measures were not designed to assess how

individuals navigate trade-offs between time and money.

Overview

In the present research, we develop the Resource Orientation Measure (ROM) to

examine stable individual differences in the proclivity to prioritize time over money

(Studies 1, 2a&b, and 3b). Next, we examine whether the ROM is associated with greater

happiness (Studies 2b, 3a&b, and 4). To develop and validate this measure and to

examine the relationship between prioritizing time over money and well-being, we report

data from six studies (*N*=4,690). Detailed demographic characteristics of the participants

from each study are presented in Table 1. We follow the reporting standards proposed by

Simmons, Nelson & Simonsohn(2011); we report all exclusions, every measure that was

given, and the stopping rule for each study as part of the Supplementary Online Materials

(SOM). Our materials and data are available through the Open Science initiative

https://osf.io/3zdv7/.

Resource Orientation Measure (ROM)

Across all studies, we assessed whether individuals prioritized having more time or having more money by presenting them with a binary choice. To help participants imagine these trade-offs concretely and to encourage honest responding (Fisher, 1993), we asked participants to read a short paragraph describing two individuals who prioritize money or who prioritize time in their daily lives. The identities of the characters and the pronouns used in the vignettes were matched to the participant's gender (Tina/Tom and Maggie/Michael); for participants who did not report identifying as either male or female, the names and pronouns used in the vignettes were displayed as gender neutral (Madison/Taylor). The choices were presented as follows:

Tina values her **time** more than her money. She is willing to sacrifice her money to have more time. For example, Tina would rather work fewer hours and make less money, than work more hours and make more money.

Maggie values her **money** more than her time. She is willing to sacrifice her time to have more money. For example, Maggie would rather work more hours and make more money, than work fewer hours and have more time.

We chose a binary response format for pragmatic and theoretical reasons. Practically, there is an increased awareness about the importance of conducting research with large representative samples (Open Science Collaboration, 2015). Thus, it is necessary to design short measures that minimize participant burden while maximizing reliability (Nagy, 2002). Conceptually, we chose this response format because we were

interested in assessing people's broad preferences related to prioritizing time over money,

as opposed to assessing people's domain-specific preferences.

Study 1

Participants & Procedure. We assessed the test-retest reliability of the ROM

across a three month time frame, in which relatively stable constructs should show no

true change (Chmielewski & Watson, 2009). In this study, 102 students from the

University of British Columbia (UBC) completed the ROM twice approximately three

months apart. Students participated in exchange for the chance to win one of three prizes

valued at $700.

Results. At the 3-month follow-up, most participants reported having the same

orientation; the kappa coefficient was 0.63 and the percent agreement was 82%, which

indicates substantial consistency (Landis & Koch, 1977).

Discussion. Study 1 provides evidence that the tendency to prioritize time over

money is a relatively stable preference. Next, to establish construct validity, we tested

whether the ROM was associated with major life decisions (Study 2a) and everyday

decisions (Study 2b). Study 2a also included measures of materialism and material

striving to examine the discriminant validity of the ROM. Although the primary purpose

of Studies 2a&b was to establish construct and discriminant validity, Study 2b also

included a brief measure of subjective well-being (SWB).

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Table 1. Participant demographic characteristics across studies.

Study	2a	2b	3a[a]	3b[b]	4
N	260	518	242	2303	1265
% Time Oriented	61	69	52	61	46
% Female	78	59	74	76	48
Md, Age		37	21	20	45
Md, HH income	-	$100K-$149K	-	-	$75K-$85K
Md(range) # children[c]	-	0 (0-4)	-	-	1 (0-6+)
Md(range) # work hours/week[d]		40 (0-90)			40 (0-90)
% Married	-	66	-	-	68

Note [a]In Study 3a, participants answered the ROM about the year after graduation. [b]In Study 3b, participants completed the gender-neutral version of the ROM. [c]This variable represents responses to "*How many children are still living with you?*". [d]This variable represents responses to "*How many hours do you work at your main job each week?*

Study 2a

Participants & Procedure. Two hundred and sixty UBC students participated in exchange for entry into a lottery or for course credit (78% female). First, participants read three scenarios that involved making tradeoffs between time and money (see the SOM for the exact scenarios used). For example, in one scenario, participants were asked to imagine that they were renting their first apartment and had to decide between renting a cheaper apartment with a longer commute and renting a more expensive apartment with a shorter commute. In another scenario, participants were told that they had been admitted to two graduate programs and had to decide between a program that resulted in a higher starting salary and more work hours or a program that resulted in a lower starting salary and fewer work hours. After indicating their decisions, participants reported their age and gender and completed the ROM.

We also examined whether the ROM was distinct from related constructs, including materialism and material striving. Thus, all participants completed the 15-item Material Values Scale (Richins, 2004; $\alpha=.89$) and 3 items from the Obsession subscale of the Money Beliefs & Behavioral Scale (MMBS; Furnham, 1984; Piff et al., 2012; $\alpha=.81$). Each participant was then randomly assigned to complete one of the following tertiary measures: a short-form measure of socially desirable responding (Strahan, & Gerbasi, 1972; $\alpha=.77$; $N=87$), the conscientiousness subscale of the BFI (John & Srivastava, 1999; $\alpha=.81$; $N=81$), or two items assessing current feelings of time and material affluence (Mogilner, Chance & Norton, 2012; $N=90$).

Results & Discussion. To examine whether prioritizing time over money predicted decision making, we summed the number of time-saving decisions that

participants made in response to the three scenarios. As predicted, participants who

reported prioritizing time on the ROM chose a higher number of time-saving options

(*M*=1.73, *SD*=.78) as compared to participants who reported prioritizing money on the

ROM (*M*=1.28, *SD*=.87), *t*(258)=4.30, *p*<.001, *d*=.55, 95%CI=[.30, .80]; see SOM for the

results reported for each scenario separately.[1]

     As expected, there was a moderate negative association between prioritizing time

over money and both materialism (*r*=-.33, *p*<.001) and material striving (*r*=-.33, *p*<.001).

Critically, these results suggest that, although the ROM shows some overlap with

materialism and material striving, it captures a largely distinct construct. There were no

significant associations between participants' responses to the ROM and social

desirability (*r*=.02), conscientiousness (*r*=.08), or current feelings of time and material

affluence (*rs*≤.11), suggesting that these variables did not play a major role in shaping

participants' responses to the ROM. See Table 2 for the correlations between all variables.

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[1] The critical results were substantively unchanged controlling for materialism and material striving, *F*(1,257)=12.78, *p*<.001.

Table 2. Correlation table of all the variables examined in Study 2a (*N*=260).

	1	2	3	4	5	6	7	8
1. ROM (1=Time Oriented)								
2. # of Time Choices	.26**							
3. Materialism (15-item)	-.33**	-.11†						
4. Material Striving (3-item)	-.33**	-.18**	.66**					
5. Social Desirability	.02	-.02	.10	-.02				
6. Conscientiousness	.08	-.10	-.23*	-.26*	-			
7. Time Affluence	.11	.04	-.007	-.02	-	-		
8. Material Affluence	.09	.07	-.15	-.11	-	-	-	
9. Gender (1=Female)	-.004	.10	-.03	-.001	.09	.08	.05	.17

†*p* ≤ .10, *p* ≤ .05, ***p* ≤ .01

Note. All participants completed both measures of materialism and material striving, but only completed one measure out of social desirability, conscientiousness, or time/material affluence. Thus, correlations could not be computed between these measures.

Study 2b

Participants & Procedure. In Study 2b, 518 adults were recruited from a science

museum in Vancouver, Canada (59% female). Participants completed a two-item

measure of subjective well-being (SWB). First, participants answered the question,

"Taking all things together, how happy would you say you are?" on a scale from 0=*Not*

at all to 10=*Extremely* (ESS, 2006). Next, participants completed the Cantril Ladder

(Cantril, 1965). For this question, participants were asked to report where they currently

stand in life on a ladder that spanned from the worst possible to the best possible life

imaginable (0=*Bottom Rung* to 10=*Top Rung*). We selected these questions because they

are brief measures used extensively in large scale survey research (e.g., Gallup World

Poll; Harter & Gurley, 2008; Deaton, 2008)

Participants then completed the ROM and read scenarios that involved making

trade-offs between time and money (see SOM). For example, in one scenario,

participants were told that they were trying to book flights for an upcoming trip and had

to decide between a cheaper flight with a layover or a more expensive direct flight. To

increase the generalizability of our results, we used three additional scenarios, in which

participants were asked to choose between driving farther to pay less for gas, paying

more for coffee at a friendlier café, or paying more to park at a closer parking lot; to

minimize burden, each participant saw only two of the scenarios. In this study, we

counterbalanced the presentation of the ROM and the scenarios. Some participants first

completed the ROM and then the scenarios (ROM 1st; *N*=194); other participants first

completed the scenarios and then the ROM (ROM 2nd; *N*=324).

Participants were then asked to report on their current feelings of time and

material affluence and to provide information about their income, marital status,

employment status (whether they were employed and/or looking for work), the number of

children they currently had living at home, the number of hours they worked on average

each week and their age and gender. These demographic variables were chosen for their

previously documented relationship with time-use and well-being (Mogilner, 2010;

Mogilner, Chance & Norton, 2012). Lastly, participants were entered into a lottery for

completing the survey and were asked to select their preferred prize. Specifically,

participants were asked to choose between receiving a $50 cash prize or a $120 voucher

for a time-saving service (housecleaning); these amounts were chosen based on a pilot

study (*N*=40) suggesting that people would be equally satisfied with receiving either

prize at these dollar amounts (see also: Zauberman & Lynch, 2005).

Results

Scenarios. To examine whether prioritizing time over money predicted decision

making, we summed the number of time-saving decisions that people made in response to

the two scenarios. As predicted, participants who prioritized time over money made a

greater number of decisions that resulted in having more time at the expense of having

more money (*M*=1.25, *SD*=.66) as compared to participants who prioritized money

(*M*=1.05, *SD*=.73), *t*(509)=3.08, *p*=.002, *d*=.29, 95%CI=[.10, .48]; see the SOM for the

results reported on each scenario separately. Order did not interact with participants'

responses to the ROM to predict time-saving decisions, *p*=.506.

Prize Draw. As expected, participants who prioritized time over money were also

more likely to choose the time-saving voucher (26.0%) as compared to participants who

prioritized money over time (15.5%), X^2 (1, 515)=6.90, p=.009. Order did not interact

with participants' responses to the ROM to predict time-saving decisions, p=.206.

SWB. Our two measures of SWB were significantly correlated, r(518)=.59,

p<.001; thus, we averaged these two items to create an index of SWB. Preliminary

analyses revealed an unpredicted effect of order, so we included the ROM, survey order,

and a ROM X Order interaction in an ANOVA to predict subjective well-being. This

analysis revealed a significant main effect of the ROM, F(1, 515)=4.49, p=.035, η^2=.009,

that was qualified by a significant ROM X Order interaction, F(1, 515)=6.22, p=.013,

η^2=.01. Decomposing this interaction, among participants who completed the ROM

before the scenarios (ROM 1st), prioritizing time over money was associated with greater

SWB, F(1, 511)=8.40, p=.004, η^2=.02. In contrast, among participants who completed the

ROM *after* completing the scenarios (ROM 2nd), prioritizing time over money was not

significantly associated with SWB, p=.757.

To examine the robustness of these effects, we next repeated this analysis, adding

our predetermined set of control variables as covariates (income, age, gender, number of

children living at home, the number of hours participants reported working each week,

participants' marital and employment status, and participants' current feelings of time

and material affluence). With all of these variables included, the main effect of the ROM

on SWB became marginally significant, F(12, 426)=3.53, p=.061; η^2=.008, while the

ROM X Order interaction remained significant, F(12, 426)=4.11, p=.043, η^2=.01. See

Table 3 for a correlation table of all variables examined in this study.[2]

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[2] This analysis is based on N=426; due to incomplete responses on all measures.

Table 3. Correlation table of all the variables examined in Study 2b (*N*=518).

	1	2	3	4	5	6	7	8	9	10	11
1. ROM (1=Time Oriented)											
2. # of Time Choices	.14**										
3. SWB	.07	.06									
4. Time Affluence[a]	.11*	-.005	.15**								
5. Material Affluence[b]	.009	.09†	.26**	.29**							
6. Household Income[c]	-.03	.17**	.23**	-.05	.26**						
7. Marital Status (1=Married)	-.09*	.04	.07	-.17**	-.04	.35**					
8. # of Children at Home	-.08†	.11*	-.12**	-.26**	-.10*	.22**	.43**				
9. # of Hours Worked/Week	-.10*	.10*	.04	-.27**	-.02	.28**	.07	-.01			
10. Employed (1=Looking)[c]	-.02	-.06	.03	.09†	-.02	-.18**	-.13**	-.08†	-23**		
11. Gender (1=Female)	-.07	-.03	.05	-.01	.11**	.18**	.06	-.05	.24**	-.11*	
12. Age	.03	.09†	.05	.08†	.10*	.18**	.31**	.27**	-.05	-.15**	.05

Notes. [a]This variable represents responses to "*Thinking about right now, how much spare time do you have?*" from 5(*Very little available time*) to +5(*Lots of available time*). [b]This variable represents responses to "*Thinking about right now, how much spare money do you have?* [c]Annual household income was asked on a 19-point scale from "*Less than $5,000*" to "*Over $1 million,*" thus this scale was treated as a continuous measure (Rhemtulla, Brosseau-Liard & Savalei, 2012). [c] This variable represents responses to "*How would you describe your employment?*" Respondents who replied that they were working part-time *or* were unemployed *and* looking for work were classified as "looking" to represent self-reported underemployment.

Discussion for Studies 2a&b

Studies 2a&b suggest that the ROM is associated with major life decisions such as choosing what apartment to rent (Study 2a), daily decisions such as choosing where to purchase gas (Study 2b), and consequential in-the-moment decisions such as choosing what lottery prize to receive (Study 2b). Together, these studies demonstrate that people who prioritize time over money express a greater willingness to use money to have more time when making decisions—from the major (Study 2a) to the mundane (Study 2b). Study 2a also shows that the ROM is a related but distinct construct from materialism and material striving, and that responses to the ROM were not driven by conscientiousness, socially desirable responding, time affluence, or material affluence. Study 2b provides tentative evidence that prioritizing time over money may be associated with greater well-being. To further explore the relationship between the ROM and well-being, we examined a more extensive set of SWB measures in two studies conducted with UBC students (Studies 3a&b, *N*=2,545). To broaden the scope of our research beyond convenience samples, we then explored the relationship between the ROM and SWB in a representative sample of employed Americans (Study 4, *N*=1,265).

Studies 3a&b

Participants & Procedure. In Study 3a, 242 UBC students participated in exchange for course credit or candy (74% female). Participants reported their general happiness on a single item measure (Abdel-Khalek, 2006). Participants then reported their SWB on an affective and cognitive measure; positive and negative affect in the last four weeks was reported on the Schedule for Positive and Negative Affect (SPANE; Diener et al., 2009; α=.88), and overall cognitive evaluation of life was reported on the

Satisfaction With Life Scale (SWLS; Diener, Emmons, Larson & Griffin, 1985; α=.88).

Participants completed the ROM and several measures tangential to the current

hypothesis (see SOM). Participants completed the 15-item Material Values Scale

(Richins, 2004; α=.86), 3 MMBS items (α=.73) and reported their age and gender.

Results & Discussion

As expected, our measures of SWB were significantly correlated, *rs* ≥.52, *ps*<.001

(see Table 4). Thus, to maximize the breadth of our measures and the brevity of our paper,

and in line with previous research using these measures (e.g., Aknin et al., 2013), we

standardized and averaged these items to create a SWB composite. To maximize

transparency, we report the results on each measure in Table 4 and the SOM.

Consistent with our hypothesis, participants who prioritized time reported higher

SWB compared to participants who prioritized money, $t(240)=2.34$, $p=.020$, $d=.30$,

95%CI=[.05,.55]. Reporting these results in the regression framework, prioritizing time

over money was a significant predictor of SWB, $β=.15$, $p=.020$; these results remained

unchanged upon including materialism and material striving into the model, $β=.15$,

$p=.028$.[3] See Table 5 for the final regression model including covariates.

To replicate the critical results of Study 3a, we conducted an additional study

(Study 3b) with a much larger sample.

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[3] There was no interaction between the ROM and materialism to predict SWB, $β=-.04$, $p=.728$; or between the ROM and material striving to predict SWB, $β=-.04$, $p=.678$.

Table 4. Correlation table of all of the variables examined in 3a (*N*=242).

	1	2	3	4	5	6	7	8	9
1. ROM (1=Time Oriented)									
2. SWB Composite	.15*								
3. Happy (1-item)	.14*	.87**							
4. SWLS (5-item)	.14*	.87**	.64**						
5. SPANE PA	.07	.81**	.65**	.59**					
6. SPANE NA	-.13*	-.73**	-.59**	-.52**	-.57**				
7. Materialism	-.39**	-.07	-.003	-.12†	-.06	.04			
8. Material Striving	-.17**	-.19**	-.18**	-.15*	-.19**	.09	.41**		
9. Gender (1=Female)	.001	.06	.05	.10	.03	.02	-.05	-.05	
10. Age	.14*	-.06	-.05	-.01	-.09	.06	-.11†	-.07	-.09

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Table 5. Regression model predicting SWB from ROM and covariates in Study 3a.

Predictor	β	B	(SE)	P value for predictor	F value for model		P value	R-square
ROM	.15*	.27	.12	.028				
Materialism	.06	.09	.10	.396				
Material Striving	-.19**	-.22	.08	.007				
Age	-.08	-.04	.03	.221				
Gender	.05	.09	.13	.461	F(5, 241)	3.04	.011	.060

Notes. Results are reported for the final stepwise regression with all covariates entered simultaneously into the model.

Study 3b

Participants & Procedure. By including our key measures in a department-wide

online survey at the beginning of the semester, we were able to recruit a very large

sample of UBC students, who participated for course credit (*N*=2303; 76% female). As a

result of this data collection strategy, participants also completed demographic items and

a number of measures submitted by other labs as part of the same survey, and we were

only able to include a limited number of items. Specifically, participants completed the

identical SWB items from Study 2a, and reported their positive and negative affect in the

last four weeks on 6 items from the SPANE. We chose the three highest loading positive

items and the three highest loading negative items from Study 3a (Diener et al., 2009;

α=.86). Participants then completed the ROM and 3 items from the MVS. We chose the

three highest loading MVS items from Study 3a (Richins, 2004; α=.75). Approximately

two weeks later, we also recruited a subset of these participants (*N*=640) to complete the

ROM again, allowing us to further assess test-retest reliability over a short period in

which no meaningful change should be expected (Chmielewski & Watson, 2009).

Results

As expected, our measures of SWB were significantly correlated, *rs* (2297)$\geq$.53*,

p*<.001; thus, we standardized and averaged these measures to create an index of SWB

(See Table 6 for correlations between all variables in this study). Consistent with our

hypothesis, participants who reported prioritizing time reported higher SWB as compared

to participants who reported prioritizing money, *t*(2297)=2.41, *p*=.016, *d*=.10,

95%CI=[.02,.18]. Reported in the regression framework, prioritizing time over money

was a significant predictor of SWB, β=.05, p=.016; these results were largely unchanged

upon including materialism in the model, β=.05, p=.030.[4] See Tables 7 and 8.

Test-retest analyses indicated that the majority of participants reported having the

same orientation at the 2-week follow-up; the kappa coefficient was 0.72 and the percent

agreement was 88%, which indicates excellent consistency (Landis & Koch, 1977).

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[4] The ROM did not interact with materialism to predict SWB, β=.02, p=.488.

Table 6. Correlation table of all of the variables examined in Study 3b (*N*=2303).

	1	2	3	4	5	6	7
1. ROM (1=Time Oriented)							
2. SWB Composite	.05*						
3. SWB (2-item measure)	.05*	.90**					
4. SPANE PA	.04*	.90**	.62**				
5. SPANE NA	-.03	-.63**	-.53**	-.61**			
6. Materialism	-.22**	-.03	-.04*	-.004	.06**		
7. Gender (1=Female)	.02	.03	.02	.02	.04*	.002	
8. Age	.04†	-.01	-.001	-.02	.02	-.10**	-.04†

Table 7. Regression predicting SWB from ROM and covariates in Study 3b.

Predictor	β	B	(SE)	P value for predictor	F value for model		P value	R-square
ROM	.05*	.17	.08	.030				
Materialism	-.02	-.03	.04	.480	$F(4, 2297)$	3.10	.045	.003

Table 8. Regression predicting SWB from ROM and covariates in Study 3b.

Predictor	β	B	(SE)	P value for predictor	F value for model		P value	R-square
ROM	.05*	.17	.08	.030				
Materialism	-.02	-.03	.04	.444				
Age	-.01	-.008	.01	.570				
Gender	.02	.10	.09	.271	$F(4, 2294)$	1.96	.098	.003

Discussion

In Studies 3a&b, we found evidence that prioritizing time over money was associated with greater well-being after controlling for other variables known to affect SWB including material striving (Study 3a) and materialism (Studies 3a&b). An important limitation of Studies 2b and 3a&b is that these studies were conducted with convenience samples that consisted mostly of students, who may face less consequential trade-offs between time and money as compared to working adults. Consequently, we sought to examine the relationship between prioritizing time over money and SWB in a representative sample of employed adults living in the United States (Study 4).

Study 4

Methods

Participants. In Study 4, we recruited our sample through the GfK Knowledge Networks Survey Panel. Panel members respond to an average of two online surveys per month and receive small cash rewards and prizes for survey completion (www.gfk.com). GfK uses equal probability sampling to recruit potential panel members by mail and phone and provides participants in non-internet households with free internet access. This allows GfK to recruit a statistically representative sample of the American population. Because we collected these data as part of a larger study examining time-use and well-being, we selectively recruited GfK panel respondents who reported being employed, and who were 18 years of age or older at the time of completing the initial GfK demographic profile. Thus, our participants should approximate a representative sample of employed adults over 18 in the United States; although we refer to our participants as a representative sample of Americans, it is worth noting that some participants may not

have had US citizenship, and that the study did not include younger individuals or

unemployed individuals (i.e., individuals who did not report working for pay).

Procedure. One limitation of conducting this research with a large representative

sample of working Americans is that we were limited in the number of measures that we

could implement. As a result, in Study 4, we implemented the identical measure of SWB

from Study 2b as compared to capturing a broad index of SWB. After participants

completed this measure as well as measures tangential to the present hypothesis (SOM),

participants completed the ROM.

Results & Discussion

Our two measures of SWB were significantly correlated, $r(1263)=.73$, $p<.001$;

thus, we averaged these two items to create an index of SWB. See Table 9 for

demographic characteristics of participants in this study. See Table 10 for the correlations

between all variables. Consistent with our hypothesis, participants who prioritized time

over money reported higher SWB as compared to participants who prioritized money,

$t(1263)=3.19$, $p=.001$, $d=.18$, $95\%CI=[.07,.29]$. Reported in the regression framework,

prioritizing time over money was a significant predictor of SWB, $\beta=.09$, $p=.001$.

Based on prior work examining time-use and well-being (Mogilner, 2010), we

also conducted these analyses controlling for age, gender, education, income, number of

hours worked on average each week, marital status, and number of children living at

home; our key results remained significant, $\beta=.06$, $p=.032$.[5] See Table 11.

After controlling for a broad range of demographic characteristics, valuing time

over money remained positively associated with SWB in a US sample of working adults.

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[5] There was no interaction between the ROM and income to predict SWB, $b=.01$, $p=.704$.

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Table 9. Descriptive statistics of all of the variables measured in Study 4 (*N* = 1265).

	% or Mean (SD)	Range
SWB (2-item)	6.95 (1.67)	0.00 to 10.00
Household Income	13.40 (3.80)[a]	1.00 to 19.00
Race (1=Black)	27.0%	
Marital Status (1=Married)	68.3%	
# of Children in the Home	1.05 (1.18)	0.00 to 6.00+
# of Hours Worked/Week	39.98 (12.70)	0.00 to 90.00
Education (1=Attended University)	41.0%	
Home Ownership (1=Yes)	74.4%	
Political Orientation[b]	4.04 (1.53)	1.00 to 7.00
Religious Attendance[c]	3.21 (1.42)	1.00 to 5.00
Age	44.69 (13.56)	18.00 to 81.00

[a] The income category "13" represents an annual household income of "$60,000-$74,999."
The income category "14" represents an annual household income of "$75,000-$84,999."
[b] Participants responded to this question on a scale from *1=Extremely Liberal*, to
7=Extremely Conservative. The mean represents "Moderate, middle of the road."
[c] Participants responded to this question on a scale from *1=Attends once a year or less*
5=Attends once per week or more. The mean represents "Once or twice a month."

Table 10. Correlation between all relevant variables in Study 4 (*N*=1265).

	1	2	3	4	5	6	7	8
1. ROM (1=Time Oriented)								
2. SWB Composite	.09**							
3. Household Income	.04	.24**						
4. Marital Status (1=Married)	.04	.22**	.30**					
5. # of Children at Home	.03	.05	.06	.25**				
6. # of Hours Worked/Week	-.17**	.04	.13**	.12**	.07*			
7. Education (1=University)	.10**	.12**	.34**	.05†	.003	.12**		
8. Gender (1=Female)	.07*	.003	-.04	-.11**	-.01	-.20**	.03	
9. Age	.07*	.19**	.11**	.18**	-.13**	-.04	-.04	-.02

Note. Income was reported on the identical scale from Study 2b. We recoded the education variable;1=bachelor degree or higher.

Table 11. Regression predicting SWB from time orientation and covariates in Study 4.

Predictor	β	B	(SE)	P value for predictor	F value for model		P value	R-square
ROM (1=Time Oriented)	.06*	.20	.09	.032				
Household Income	.16**	.07	.01	.000				
Marital Status (1=Married)	.14**	.49	.11	.000				
# of Children at Home	.02	.03	.04	.432				
# of Hours Worked/Week	-.005	-.001	.004	.885				
Level of Education	.06*	.21	.10	.033				
Gender (1=Female)	.02	.07	.09	.449				
Age	.15**	.02	.003	.000	$F(8, 1255)$	19.32	<.001	.11

Studies 2b-4 Meta-Analyzed

Next, we meta-analyzed the results of Studies 2b, 3a&b, and 4 (*N*=4,328).

Following the recommendations of Lipsey and Wilson (2001), individual standardized

effect sizes from each study were weighted by the inverse of their variance, and then

aggregated to arrive at a meta-analytic effect size across studies. In this analysis,

prioritizing time over money was associated with greater SWB, *d*=.14, *p*<.001,

95%CI=[.08-.20]. We did not have *a priori* hypotheses about the components of SWB

(PA, NA, SWL) that would most strongly correlate with prioritizing time over money.

Thus, on an exploratory basis, we examined the associations between each component of

SWB and the ROM separately using data from Studies 3a&b—the two data sets in which

three measures of SWB were collected simultaneously (*N*=2,545). Overall, the preference

to prioritize time over money was significantly associated with greater SWLS, *d*=.12,

p<.001, 95%CI [.04,.20], greater PA, *d*=.09, *p*<.001, 95%CI=[.02,.16] and lower NA,

d=.08, *p*<.001, 95%CI=[.0003,.16]. The consistency of these findings is supported by

research showing that SWB is often best defined as a combination of high positive affect,

low negative affect and high feelings of life satisfaction (Diener, 1994; Diener & Lucas,

1999; Sheldon, 2013). These additional analyses reveal the consistency of our findings

across various studies, participants, and measures (Lipsey & Wilson, 2001).

General Discussion

We developed the Resource Orientation Measure to examine people's preferences

to prioritize time over money. Across six studies (*N*=4,690), we used the ROM to provide

the first evidence that prioritizing time over money is a stable preference associated with

day-to-day decisions, major life decisions, and subjective well-being. In particular,

people who prioritized time over money reported experiencing greater happiness. This

association was small but robust, and held controlling for materialism, material striving,

current feelings of time and material affluence, and relevant demographic characteristics

such as income, employment, marital status, gender, and age.

It is important to note that the relationship between the ROM and subjective well-

being was small (Cohen, 1992). The magnitude of this effect is consistent with a great

deal of existing research, which typically reveals rather diminutive relationships between

individual psychological variables and the broad and multiply-determined construct of

subjective well-being (e.g., Lyubomirsky, Sheldon & Schkade, 2005). However, it is

notable that in a representative sample of employed adults living in the United States

(Study 4), the association between our single-item measure of time-money trade-offs and

SWB was nearly half the size of other well-established demographic factors, such as

marital status (Helliwell & Putnman, 2004) and income (Stevenson & Wolfers, 2013).

Critically, we found reliable associations between prioritizing time over money and SWB

among a sample of students, community members in Canada, and a representative sample

of employed Americans.

How and why might prioritizing time over money shape happiness? Across these

studies, we found evidence that the ROM was associated with beneficial time-use

decisions. Indeed, students who prioritized time over money on the ROM reported a

preference for career paths that would give them more free time (Study 2a) and adults

who prioritized time over money on the ROM reported working fewer hours on average

each week (Studies 2b & 4). In turn, these decisions might allow people to spend more

time engaging in enjoyable activities such as socializing and exercising (e.g., Kahneman

et al., 2006). These orientations also seem to influence people's decisions about spending money. For example, people who prioritized time over money were willing to pay more money to live closer to work (rather than spending their time commuting).

That said, the goal of the current work was to validate the ROM and assess its relationship with well-being, rather than to delineate the complex causal processes that might underlie this relationship. It is certainly plausible that happier people may be better able to derive happiness from free time, and therefore might be more likely to prioritize time over money (Frederickson, 2001). Thus, additional longitudinal research is needed to understand the causal processes by which the tendency to prioritize time over money shapes well-being, and vice versa. To this end, our team is currently conducting a multi-year follow-up study with four-thousand students to explore how responses on the ROM shape decision-making and happiness over time. Additional research should also explore whether the happiness benefits of prioritizing time over money emerge primarily after one's financial needs are met (Kahneman & Deaton, 2010). Although we did not find evidence for a moderating effect of income in this research (Study 4), more work is needed to examine whether prioritizing time vs. money has the greatest benefits for people at the higher end of the income spectrum.

Building on these initial findings, additional research should examine whether time vs. money orientations fluctuate over the course of one's lifetime. In Study 4, older people were more likely to prioritize time over money, compared to younger people. These findings are consistent with research showing that age changes people's priorities (Carstensen, Isaacowitz & Charles, 1999). It would also be interesting to explore whether time-money preferences shift in response to major life changes, such as after having

children, following a traumatic life event, or after retirement. Because psychological

flexibility substantively contributes to well-being (Kashdan & Rottenberg, 2010), these

studies would allow for the examination of the novel hypothesis that flexibly changing

one's time-vs.-money orientations to match the needs of the current situation, might

result in the greatest psychological rewards.

In sum, these findings provide initial evidence that people's general tendencies to

prioritize time over money are associated with greater happiness. These findings

underscore the importance of considering the trade-offs that people make between time

and money, beyond examining the acute effects of thinking about time and money in the

lab. Although causality cannot be inferred, these data point to the possibility that valuing

time over money is a stable preference that may provide one path to greater happiness.

References

Abdel-Khalek, A. M. (2006). Measuring happiness with a single-item scale. *Social Behavior and Personality: An International Journal*, *34*(2), 139-150.

Adam, E. K. (2006). Transactions among adolescent trait and state emotion and diurnal and momentary cortisol activity in naturalistic settings. *Psychoneuroendocrinology*, *31*(5), 664-79.

Aknin, L. B., Barrington-Leigh, C. P., Dunn, E. W., Helliwell, J. F., Burns, J., Biswas-Diener, R., ... & Norton, M. I. (2013). Prosocial spending and well-being: Cross-cultural evidence for a psychological universal. *Journal of Personality and Social Psychology*, *104*(4), 635.

Carstensen, L. L., Isaacowitz, D. M., & Charles, S. T. (1999). Taking time seriously: A theory of socioemotional selectivity. *American psychologist*, *54*(3), 165.

Cantril, H. (1965). Pattern of human concerns.

Chmielewski, M., & Watson, D. (2009). What is being assessed and why it matters: the impact of transient error on trait research. *Journal of Personality and Social Psychology*, *97*(1), 186.

Christopher, A. N., & Schlenker, B. R. (2000). The impact of perceived material wealth and perceiver personality on first impressions. *Journal of Economic Psychology*, *21*(1), 1-19.

Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*(1), 155.

Diener, E. (1994). Assessing subjective well-being: Progress and opportunities. *Social indicators research*, *31*(2), 103-157.

Diener, E., & Biswas-Diener, R. (2002). Will money increase subjective well-being?. *Social Indicators Research*, *57*(2), 119-169.

Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, *49*(1), 71-75.

Diener, E., & Lucas, R. E. (1999). 11 Personality and Subjective Well-Being. *Well-being: Foundations of hedonic psychology*, 213.

Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi. D., Oishi, S., & Biswas-Diener, R. (2009). New measures of well-being: Flourishing and positive and negative feelings. *Social Indicators Research, 39,* 247-266.

Deaton (2008). Income, Health, and Well-being Around the World: Evidence from the Gallup World Poll. *Journal of Economic Perspectives*, *22*(2), 53-72.

Ellison, C. G. (1991). Religious involvement and subjective well-being. *Journal of Health and Social Behavior*, 80-99.

Fisher, R. J. (1993). Social desirability bias and the validity of indirect questioning. *Journal of Consumer Research*, 303-315.

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, *56*(3), 218.

Furnham, A. (1984). Many sides of the coin: The psychology of money usage. *Personality and Individual Differences*, *5*(5), 501-509.

Helliwell, J. F., & Putnam, R. D. (2004). The social context of well-being. *Philosophical transactions-royal society of London series B biological sciences*, 1435-1446.

Harter, J. K., & Gurley, V. F. (2008). Measuring well-being in the United States. *Association for Psychological Science Observer*, *21*(8).

John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. *Handbook of personality: Theory and research*, *2*(1999), 102-138.

Kahneman, D., & Deaton, A. (2010). High income improves evaluation of life but not emotional well-being. *Proceedings of the national academy of sciences*, *107*(38), 16489-16493.

Kahneman, D., Krueger, A. B., Schkade, D., Schwarz, N., & Stone, A. A. (2006). Would you be happier if you were richer? A focusing illusion. *Science*, *312*(5782), 1908-1910.

Kashdan, T. B., Biswas-Diener, R., & King, L. A. (2008). Reconsidering happiness: The costs of distinguishing between hedonics and eudaimonia. *The Journal of Positive Psychology*, *3*(4), 219-233.

Kashdan, T. B., & Rottenberg, J. (2010). Psychological flexibility as a fundamental aspect of health. *Clinical psychology review*, *30*(7), 865-878.

Kok, B. E., & Fredrickson, B. L. (2010). Upward spirals of the heart: Autonomic flexibility, as indexed by vagal tone, reciprocally and prospectively predicts positive emotions & social connectedness. *Biological Psychology*, *85*(3), 432-436.

Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, 159-174.

Lipsey, M.W. & Wilson, D. B. (2001). *Practical meta-analysis* (Vol. 49). Thousand Oaks, CA: Sage publications.

Lyubomirsky, S., Sheldon, K. M., & Schkade, D. (2005). Pursuing happiness: the architecture of sustainable change. *Review of general psychology*, *9*(2), 111.

Mogilner, C. (2010). The pursuit of happiness time, money, and social connection. *Psychological Science*, *21*(9), 1348-1354.

Mogilner, C., Chance, Z., & Norton, M. I. (2012). Giving time gives you time. *Psychological Science*, *23*(10), 1233-1238.

Open Science Collaboration. (2015). Estimating the reproducibility of psychological science. *Science*, *349*(6251), aac4716.

Nagy, M. S. (2002). Using a single item approach to measure facet job satisfaction. *Journal of Occupational and Organizational Psychology*, *75*(1), 77-86.

Piff, P. K., Stancato, D. M., Martinez, A. G., Kraus, M. W., & Keltner, D. (2012). Class, chaos, and the construction of community. *Journal of Personality and Social Psychology*, *103*(6), 949.

Kasser, T., & Ryan, R. M. (1993). A dark side of the American dream: correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology*, *65*(2), 410.

Rhemtulla, M., Brosseau-Liard, P. E., & Savalei, V. (2012). When can categorical variables be treated as continuous? A comparison of robust continuous and categorical SEM estimation methods under suboptimal conditions. *Psychological Methods*, *17*(3), 354.

Richins, M. L., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research*.

Richins, M. L. (2004). The material values scale: Measurement properties and

development of a short form. *Journal of Consumer Research*, *31*(1), 209-219.

Roberts, J. A., & Clement, A. (2007). Materialism and satisfaction with over-all quality

of life and eight life domains. *Social Indicators Research*, *82*(1), 79-92.

Sheldon, K. M. (2013). Individual daimon, universal needs, and subjective well-being:

Happiness as the natural consequence of a life well lived.

Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-positive psychology

undisclosed flexibility in data collection and analysis allows presenting anything

as significant. *Psychological Science*, 0956797611417632.

Stevenson, B., & Wolfers, J. (2013). *Subjective well-Being and income: Is there any

evidence of satiation?* (No. w18992). National Bureau of Economic Research.

Strahan, R., & Gerbasi, K. C. (1972). Short, homogeneous versions of the Marlowe-

Crowne Social Desirability Scale. *Journal of Clinical Psychology*.

Tatzel, M. (2003). The art of buying: Coming to terms with money and materialism.

Journal of Happiness Studies, *4*(4), 405-435.

Troisi, J. D., Christopher, A. N., & Marek, P. (2006). Materialism and money spending

disposition as predictors of economic and personality variables. *North American

Journal of Psychology*, *8*(3), 421.

Vohs, K. D., Mead, N. L., & Goode, M. R. (2006). The psychological consequences of

money. *Science*, *314*(5802), 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*(3), 208-212.

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Witter, R. A., Okun, M. A., Stock, W. A., & Haring, M. J. (1984). Education and

   subjective well-being: A meta-analysis. *Educational Evaluation and Policy*

   Analysis, 165-173.

Zauberman, G., & Lynch Jr, J. G. (2005). Resource slack and propensity to discount

   delayed investments of time versus money. *Journal of Experimental Psychology:*

   General, *134*(1), 23.

Supplementary Online Materials

In the sections that follow, we provide additional information to complement the results of the studies reported in text. First, we report additional details about the recruitment strategies and stopping rules used for each study. Next, we report additional measures collected, where applicable. Finally, we provide the means and standard deviations for the study variables and the key SWB results reported across studies.

Study 1: Additional Information

  Recruitment. In Study 1, we were interested in assessing the test-retest reliability of the ROM over three-months. Thus, we contacted all UBC students that had completed the ROM during the previous academic semester as part of several ongoing studies. In June 2015, we asked these students to complete the ROM for the chance to win one of three prizes valued at $700, 102 students out of a possible 482 responded (21%).

Study 2a: Additional Information

Recruitment. We collected data for this study through the UBC Human Subject Pool. Psychology students completed this survey in exchange for course credit. We targeted a sample size of 200, and we collected data throughout the 2015-2016 summer semester. Because there is a limited subject pool at UBC during the summer, we supplemented this data collection by recruiting participants on campus in exchange for entry into a lottery for one of three prizes valued at approximately $700. We stopped collecting data at the end of the summer semester, resulting in a total of 260 participants.

Additional Measures. On the next page, we provide the exact scenarios that students completed. Table S1 provides the association between the ROM and each of the scenarios reported separately.

Means & SDs. Table S2 provides the means and standard deviations for all of the measures collected in this study. For a detailed description of the study measures and the reliability of each measure, refer to Pages 8 & 9 of the manuscript.

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Study 2a: Scenarios

Imagine that you are making the decision to rent your first apartment. You have narrowed down your decision to two apartments that are virtually identical in every way, except for the location and the price. If you choose Apartment A, your daily commute to work will be 10 minutes each way. If you choose Apartment B, your daily commute to work will be 60 minutes each way. However, Apartment A costs an additional $350 each month. Which apartment would you choose to rent?

  ☐ I would choose Apartment A: the more expensive apartment with the shorter commute
  ☐ I would choose Apartment B: the less expensive apartment with the longer commute

Imagine that you have been working for a company and your boss offers you the chance to apply to one of two new positions. Both of these positions are similarly prestigious, and you have an equal chance of securing either position given your skills and experience. In Position A, you would receive $50,000 after taxes and would be asked to work 35-40 hours each week. In Position B, you would receive $75,000 after taxes and you would be asked to work 60-65 hours each week. The two jobs are similar in every other respect. What position would you apply for?

  ☐ I would choose to apply for Position A: making $50,000 and working 35-40 hours/week
  ☐ I would choose to apply for Position B: making $75,000 and working 60-65 hours/week

Imagine that you have just been admitted to two different graduate programs that lead to different career outcomes. Both programs take about the same amount of time to complete, cost about the same amount of money, and are very similar in every other respect, including prestige. Graduates of both programs typically work full-time during the week. Students who graduate from Program A tend to secure careers with higher starting salaries than students who graduate from Program B. However, graduates of Program A also work many evenings and weekends. Graduates of Program B never work evenings or weekends. Which program would you choose?

  ☐ I would choose Career A: with a higher starting salary and more work hours/week
  ☐ I would choose Career B: with a lower starting salary and fewer work hours/week

Table S1. ROM predicting major life decisions in Study 2a.

	Time-vs.-money oriented	Money-vs.-time oriented	Statistics
Closer/More expensive apartment	46.9%	33.7%	$X^2(1, 261) = 4.44, p = .035$
Promotion/Fewer hours & less money	66.9%	51.5%	$X^2(1, 261) = 6.16, p = .013$
Future career/Fewer hours & less money	58.8%	41.6%	$X^2(1, 261) = 7.31, p = .007$

Table S2. Descriptive statistics of all of the variables measured in Study 2a ($N = 260$).

	Mean (SD)	Range
# of Time Saving Choices	1.55 (.84)	0.00 to 3.00
Materialism (15-items)	3.57 (1.02)	1.23 to 6.38
Material Striving (3-items)	2.56 (1.23)	1.00 to 6.00
Time Affluence (1-item)	0.84 (2.86)	-5.00 to 5.00
Material Affluence (1-item)	-0.18 (2.90)	-5.00 to 5.00
Conscientiousness (7-items)	3.87 (.56)	2.56 to 5.00
Social Desirability (8-items)	4.57 (1.60)	0.00 to 8.00

Note. Participants responded to the materialism and material values measures on a scale from *1=Strongly Disagree* to *7=Strongly Agree;* participants completed the short-form measure of socially desirable responding by indicating whether 8-items were true or false (each true response received a score of "1"). Participants responded to the conscientiousness subscale of the BFI on items from *1=Disagree Strongly* to *5=Agree Strongly* and reported their current feelings of time and material affluence on a scale from 5-*Very little time/money available* to +5 *Lots of time/money available.*

Study 2b: Additional Information

     Recruitment. We collected data for Study 2b at a local science center in Vancouver, Canada. Participants were not offered compensation due to the science center's policies. We targeted a sample size of N=300, to ensure that we had a sufficient number of participants that completed each of the time/money scenarios. After collecting data from three hundred participants, we observed an unexpectedly unequal proportion of participants who reported valuing time over money as compared to participants who reported valuing money over time. Thus, to increase the power associated with our critical analyses, we chose to continue collecting data until the end of the summer (August 31, 2015), resulting in a total of 518 participants.

     Additional Measures. On the next page, we provide the exact scenarios that participants completed. Table S3 provides the association between the ROM and each of the scenarios reported separately.

     Means & SDs. Table S4 provides the means and standard deviations of all of the measures collected in Study 2b. Table S5 provides the means and standard deviations for the key SWB results reported in text. For descriptions and the reliabilities of each measure, refer to Pages 12 & 13 and the notes of Table 3 in the manuscript.

Study 2b: Scenarios

Imagine that you are trying to book flights for an upcoming solo trip to attend a friend's wedding. You are trying to decide between two flights. Flight A flies directly to your destination. Flight B requires a 3-hour lay over each way. However, Flight A costs $200 more than Flight B. The two flights are similar in every other way. Which flight would you choose?

- ☐ I would choose Flight A, which costs $200 more and flies directly
- ☐ I would choose Flight B, which costs $200 less and has a layover

Imagine that you are trying to find parking downtown to attend dinner at a restaurant with friends. You are driving straight from work to the dinner, and you are already running several minutes late for your friend's reservation. You are looking for parking and you have the choice between two familiar parking lots. Parking Lot A is next door to the restaurant and costs $8.00/hour. Parking Lot B is a 10 minute walk from the restaurant and costs $5.00/hour. The lots are similar in every other respect. Which parking lot would you choose to park at?

- ☐ I would choose Parking Lot A: the parking lot next door to the restaurant that costs $8.00/hour
- ☐ I would choose Parking Lot B: the parking lot 10 minutes from the restaurant that costs $5.00/hour

Imagine that you are making the decision to spend the morning leisurely working at one of your two favourite coffee shops. At Coffee Shop A, you never see anyone you know, and you aren't familiar with the serving staff. At Coffee Shop B, you enjoy chatting with the staff and customers while being served your coffee. However, the prices at Coffee Shop B are nearly twice as much. Which coffee shop would you choose to go to?

- ☐ I would choose Coffee Shop A: the cheaper coffee shop with the less familiar staff and customers
- ☐ I would choose Coffee Shop B: the more expensive coffee shop with the more familiar staff and customers

Imagine that you are on the way home from work. You hear an announcement on the radio about cheap gas at a station that is an extra 10 minutes out of your way. You are planning to fill up your tank and it is pretty close to empty. Do you drive 10 minutes out of your way to buy the cheaper gas that will save you $20 (Station A), or do you pay more at a local pump to save time (Station B)?

- ☐ I would choose Station A: the station with cheaper gas that is farther away
- ☐ I would choose Station B: the station with more expensive gas that is closer

Table S3. ROM predicting daily decision making in Study 2b.

	Time-vs.-money oriented	Money-vs.-time oriented	Statistics
Familiar/ more expensive coffee shop	67.4%	47.1%	$X^2(1, 265) = 10.09, p = .001$
Closer/more expensive gas station	51.7%	36.8%	$X^2(1, 263) = 5.20, p = .022$
Direct/more expensive flight	54.3%	50.0%	$X^2(1, 253) = .40, p = .528$
Closer/More expensive parking lot	76.6%	71.8%	$X^2(1, 253) = .66, p = .417$

Table S4. Descriptive statistics of all of the variables measured in Study 2b (N=518).

	% or Mean (SD)	Range
SWB	7.29 (1.31)	2.50 to 10.00
# of Time Saving Choices	1.19 (.69)	0.00 to 2.00
Time Affluence (1-item)	1.11 (2.79)	-5.00 to 5.00
Material Affluence (1-item)	.45 (2.65)	-5.00 to 5.00
Annual Household Income	13.23 (3.21)[a]	1.00 to 19.00
Marital Status (1=Married)	66.3%	
# of Children at Home	.76 (.96)	0.00 to 4.00
# of Hours Worked/Week	33.28(17.89)	0.00 to 90.00
Age	38.08(13.34)	16.00 to 79.00
Employed (1=Looking)	5.8%	

[a] This income category represents an annual household income of "$60,000-$74,999."

Table S5. SWB results including descriptive statistics for Study 2b.

	Time Oriented	Money Oriented	Statistics	Cohen's d
SWB (All)	7.34 (1.30)	7.16 (1.35)	$t(513) = 1.47, p = .143$	0.19
SWB (ROM 1st)	7.34 (1.26)	6.75 (1.60)	$t(191) = 2.76, p = .006$	0.36

Note. See Page 13 of the manuscript for a detailed description of these analyses.

Study 3a: Additional Information

   Recruitment. We recruited UBC students to participate in this study for course credit or candy. These data were collected during the first wave of an ongoing longitudinal study. We chose a target sample size of 200 participants for our initial survey, and we made the *a priori* decision to stop data collection at the end of the 2013-2014 academic year, resulting in a total of 242 participants. The data from Study 3a are available by request to the first author.

   Additional Measures. For an unrelated hypothesis, we included a loneliness scale (UCLA) and a meaning in life scale (MLQ). The results of these measures are reported in Table S6.

   Means & SDs. Table S7 provides the means and standard deviations of the key measures collected in this study. Table S8 provides the means and standard deviations for all of the SWB results reported in text and for each of the SWB measures reported separately. For a detailed description of the study measures and the reliabilities of each of the measures included in this study, refer to Pages 20 & 21 of the manuscript.

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Table S6. Other measures collected that were tangential to the current hypothesis.

	Time Oriented	Money Oriented	Statistics	Cohen's d
UCLA	2.37 (.43)	2.39 (.39)	$t(240) = 0.49, p = .627$	0.06
MLQ 5-item	4.95 (1.25)	4.70 (1.27)	$t(203) = 1.38, p = .170$	0.18
ZMLQ	.07 (1.00)	-.07 (.99)	$t(240) = 1.09, p = .278$	0.14

Note. The 5-item MLQ is based on 205 observations because in our initial surveys we asked only a 1-item question about meaning in life. Thus, ZMLQ represents the standardized and averaged composite of the 5-item and 1-item MLQ measures.

Table S7. Descriptive statistics of the variables measured in Study 3a ($N = 242$).

	Mean (SD)	Range
Happy (1-item)	4.10 (.83)	1.00 to 5.00
SWLS (5-item)	4.70 (1.32)	1.00 to 7.00
SPANE PA	3.68 (.68)	1.00 to 5.00
SPANE NA	2.49 (.77)	1.00 to 4.50
Materialism (15-item)	2.80 (.65)	1.33 to 4.53
Material Striving (3-item)	1.73 (.74)	1.00 to 4.00
Age	20.87 (1.79)	17.00 to 28.00

Table S8. SWB results reported on each measure separately including descriptives.

	Time Oriented	Money Oriented	Statistics	Cohen's d
Happiness (1-item)	4.21 (.78)	3.98 (.88)	$t(240) = 3.22, p = .036$	0.41
SPANE PA	3.72 (.68)	3.63 (.68)	$t(240) = 1.06, p = .290$	0.14
SPANE NA	2.39 (.80)	2.60 (.73)	$t(240) = 2.08, p = .038$	0.27
SWLS (5-item)	4.92 (1.39)	4.49 (1.22)	$t(203) = 2.35, p = .020$	0.30
ZSWLS	.13 (1.04)	-.14 (.93)	$t(240) = 2.16, p = .032$	0.28

Note. See Page 20 of the manuscript for a more detailed description of these analyses. The 5-item Satisfaction with Life Scale (SWLS) used in this study was based on 205 observations because in our initial surveys we asked only a 1-item satisfaction with life measure. Thus the standardized SWLS measure (ZSWLS) represents the standardized and averaged composite of the 5-item and 1-item SWL items, and this standardized composite is included in our overall SWB composite to preserve degrees of freedom.

Study 3b

Recruitment Information. We recruited UBC students to participate in this study in exchange for course credit. These data were collected as part of a departmental pre-screening survey. We analyzed all of the data that was collected between the first and last day of the departmental prescreening; resulting in a total of 2303 participants.

Additional Measures. In Study 3b, we were interested in assessing the test-retest reliability of the ROM over two weeks. To obtain this data, we emailed all participants who completed the ROM. In this email, we asked participants to provide their response to the ROM. We did not send these emails until approximately two weeks after the pre-screening had closed. We offered participants the chance to win one of three prizes valued at $700, 640 students out of a possible 2303 responded to this email (28%).

Means & SDs. Table S9 provides the means and standard deviations of all of the measures collected in this study. Table S10 provides the means and standard deviations for all of the SWB results reported in text and on each of the SWB measures separately. For the reliabilities of each measure, refer to Pages 19 of the manuscript.

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Table S9. Descriptive statistics of the variables measured in Study 3b ($N = 2302$).

	Mean (SD)	Range
SWLS AVG (2-item)	6.62 (1.49)	0.00 to 10.00
SPANE PA (3-item)	3.85 (0.65)	1.00 to 5.00
SPANE NA (3-item)	2.70 (0.72)	1.00 to 5.00
Materialism (3-item)	3.08 (0.91)	1.00 to 5.00
Age	20.07 (2.70)	16.00 to 47.00

Table S10. SWB results reported on each measure separately including descriptives.

	Time Oriented	Money Oriented	Statistics	Cohen's d
SWLS	6.68 (1.47)	6.53 (1.50)	$t(2297) = 2.31, p = .021$	0.10
SPANE PA	3.88 (0.65)	3.82 (0.65)	$t(2297) = 2.08, p = .038$	0.09
SPANE NA	2.68 (0.72)	2.73 (0.71)	$t(2297) = 1.51, p = .132$	0.06

Note. See pages 20-22 of the current manuscript for description of these analyses.

Study 4: Additional Information

  Participants. We recruited a nationally representative sample of Americans

through the GfK Knowledge Networks research panel. The GfK panel has 50,000

members who are recruited from an address-based sampling frame comprised of 97% US

addresses. GfK uses equal probability sampling to recruit potential panel members by

mail and phone and provides participants in non-internet households with free internet

access. Panel members complete a demographic profile survey at enrollment and respond

to an average of two online surveys per month. Panel members receive small cash

rewards and prizes for survey completion (full information about methods and sampling

strategies are available at www.gfk.com). This data collection was supported through the

Time Sharing Experiments for the Social Sciences initiative.

  Because we collected these data as part of a larger study examining time-use and

well-being, we selectively recruited GfK panel respondents who reported being employed,

and who were 18 years of age or older at the time of completing the initial GfK

demographic profile. Over an 11-day fielding period, 1275 respondents completed our

survey. Ten respondents did not complete our key variables of interest, thus our primary

analyses are based on 1265 responses.

  Additional Measures. We collected data on unrelated measures that we did not

report in text. These measures are relevant to ongoing research being conducted by the

study team and are available upon request to the first author.

  Means & SDs. Table S11 provides the means and standard deviations for the

SWB results reported in text. For a detailed description of the study measures and

reliabilities, refer to Page 24 of the manuscript. In Table S12 and S13, we provide the

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correlations and regression analyses reported with a different set of covariates (chosen by

including all demographic variables that were significant predictors of SWB). Critically,

the key results hold controlling for this alternative set of covariates, suggesting that there

is a reliable relationship between the ROM and SWB regardless of the covariates

included/excluded in these analyses.

Table S11. SWB reported on each measure separately including descriptives.

	Time Oriented	Money Oriented	Statistics	Cohen's d
SWB (2-item)	7.11 (1.62)	6.81 (1.71)	$t(1263) = 3.19, p = .001$	0.18

Note. See pages 24, 26 & 27 of the current manuscript for description of these analyses.

Table S12. Study 4 correlation table between orientations measure & an alternative set of covariates.

	1	2	3	4	5	6	7	8
1. ROM (1=time)								
2. Age	.07*							
3. Marital Status (1=married)	.04	.18**						
4. Race (1=Black)	-.06*	-.09**	-.09*					
5. Highest Education	.10**	-.04	.05†	-.03				
6. Household Income	.04	.11**	.30**	-.09*	.34**			
7. Property Ownership (1=yes)	.03	.23**	.20**	-.15**	.08*	.36**		
8. Political Ideology	-.05†	.12**	.11**	-.12**	-.12**	.04	.19**	
9. Religious Attendance	.09*	.13**	.04	.07*	.07*	.01	.08*	.30**

† *p* < .10, *p* < .05, ** *p* < .001

Notes. Participants were asked to indicate their ethnicity. We recoded this variable such that "1" represents "Black." For a description of the income, political ideology, and religious attendance variables used in this study see the notes of Table S11.

Table S13. Regression predicting SWB from an alternative set of covariates in Study 4.

Predictor	β	B	(SE)	P value for predictor	F value for model	P value	R-square
ROM	.06*	.19	.09	.035			
Age	.12**	.02	.003	<.001			
Marital Status (1=Married)	.13**	.45	.10	<.001			
Race (1=Black)	-.04	.16	.10	.114			
Highest Education	.06*	.21	.10	.030			
Household Income	.14**	.06	.01	<.001			
Property Ownership (1=Yes)	.08*	.29	.11	.011			
Political Ideology	.01	.01	.03	.702			
Religious Attendance	.14**	.13	.03	<.001			
					$F(9, 1230) = 21.26$	< .001	.14

† $p < .10$, *$p < .05$, ** $p < .001$