

Valuing time over money is associated with greater social connection

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Abstract

Can the trade-offs that people make between time and money shape our social relationships? Across three studies, utilizing self-report ($N = 127$; $N = 249$) and behavioral outcomes ($N = 358$), we provide the first evidence that the chronic orientation to prioritize time over money encourages greater investment in daily social interactions. For example, in Study 2, respondents who valued time spent 18% longer socializing with a new peer than respondents who valued money. These findings could not be explained by extraversion (Study 1) or by demographic characteristics such as age, gender, or socioeconomic status (Studies 1 to 3). Together, these studies suggest that valuing time over money facilitates social connection.

Keywords

Belonging, happiness, money, social connection, time, trade-offs, well-being

People report feeling increasingly pressed for time (Perlow, 1999). People also report not having enough money to meet their basic needs (Rheault, 2011). However, taking more time for oneself comes at the expense of having less money, and earning more money often cuts into free time. Can the trade-offs that people make between time and money shape social connection?

This question is important to address in the light of the fact that North Americans are lonelier than ever before. In the U.S., social networks are shrinking (McPherson, Smith-

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Lovin, & Brashears, 2006) and 40% of Americans feel lonely—a figure that has doubled in the past 30 years (Wilson & Moulton, 2010). While several factors influence social connection, leisure time plays a critical role (Glover, 2018). In a survey of more than 30,000 workers, more than 90% of respondents reported moderate-to-high levels of role overload, meaning they were trying to do too many things at once to meet the demands of work and life (Duxbury, Schroeder, & Higgins, 2009). This busyness comes at a social cost: the majority of respondents—both with and without children—reported that they did not spend enough time with friends and family.

However, careful analysis of time diary data suggests that the number of hours that people work has remained relatively constant over the last five decades (Aguiar & Hurst, 2007). In fact, people around the world have more time for leisure today than they did 40 years ago (Robinson & Godbey, 1997). Perhaps what is missing from these statistics is an understanding of how people value their time relative to their money.

Recent research suggests that the chronic orientation to value time over money can shape time-use decisions. In a recent study, researchers surveyed college students, working adults in Canada, and a representative sample of Americans ($N = 4,690$). Respondents were asked whether they would rather sacrifice time to have more money or sacrifice money to have more time (Whillans, Weidman, & Dunn, 2016). Overall, respondents were split down the middle on this question, with a slight majority (54%) reporting that they would rather sacrifice money to have more time. Importantly, respondents who valued time over money made decisions that enabled them to have more free time—such as working fewer hours, renting a more expensive apartment closer to work, and choosing a time-saving voucher versus a cash prize in a lottery. These results held controlling for age, number of children living at home, materialism, and household income. These results also held controlling for how pressed for time and money respondents felt in the moment, suggesting that this orientation exerts effects above and beyond resource scarcity.

In an independent investigation, another group of researchers asked respondents whether they would rather have more time or more money ($N = 4,413$). Once again, respondents who said that they would prefer to have more time (vs. more money) made decisions that enabled them to have more leisure time (Hershfield, Mogilner, & Barnea, 2016). These results held controlling for relevant variables such as income as well as time and money scarcity. Together these results suggest that prioritizing time over money is a generalizable, replicable, and previously unrecognized predictor of daily time-use decisions. Because valuing time over money encourages people to make life choices that enable them to have more free time, it is plausible that time and money trade-offs could also predict investment in daily social interactions. To the extent that the chronic orientation to value money more than time encourages people to prioritize work and productivity over leisure, valuing money may put people at an increased risk for social isolation.

Providing indirect support for this hypothesis, thinking about time can lead people to socialize more and work less, whereas thinking about money can lead people to work more and socialize less (Mogilner, 2010; Vohs, 2015; Vohs, Mead, & Goode, 2006, 2008). For example, after completing a scrambled-words task that implicitly activated the concept of time (vs. money), individuals reported a greater desire to socialize and a lower desire to work (Mogilner, 2010). This research provides initial evidence that the

momentary activation of the concepts of time and money can have social consequences. Moving beyond previous research, we examine whether people's *chronic* orientations to value time or money also shape social behavior.

Across three studies, we examined how willing people were to interact with new peers that they had never met (Studies 1 and 2) and how likely employees were to interact with colleagues about nonwork-related topics (Study 3). These studies allowed us to examine whether people with a stated proclivity to value money over time were less likely to spend time investing in everyday social interactions. In these studies, we controlled for other variables that could explain these associations. In Study 1, we controlled for variables including perceived time pressure, demographic variables (e.g., age), and personality (e.g., extraversion). Furthermore, people from lower (vs. higher) working-class backgrounds might be more likely to value time over money and spend less time interacting with new peers. Thus, in Study 2, we controlled for socioeconomic status (SES) background. In Study 3, we controlled for job title as a proxy for how much money respondents made.

Resource orientation measure (ROM)

Across 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 (Whillans et al., 2016).

The identities of the characters and the pronouns used in the vignettes are matched to the participants' gender (Tina/Tom and Maggie/Michael); for participants who do not report identifying as male or female, the names and pronouns used in the vignettes are displayed as gender neutral (Madison/Taylor). The choices are 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 practical and conceptual reasons. Practically, there is an increased awareness about the importance of conducting research with large representative samples (Open Science Collaboration, 2015). It is necessary to design short measures that minimize participant burden while maximizing reliability (Nagy, 2002). Conceptually, we chose this response format because we are interested in assessing people's broad preferences related to prioritizing time over money as opposed to assessing people's domain-specific preferences. Prior research suggests that people's responses to this measure represent a stable preference that is a reliable predictor of consumer decisions (Hershfield et al., 2016; Whillans et al., 2016). This research also shows that the resource orientation measure (ROM) is a distinct construct from both materialism and

Table 1. Participant demographic characteristics across studies.

Study	1	2	3
N	127	358	298
% Time oriented	62	51	60
% Female	75	83	80
% Caucasian	24	27	—
% Full-time student	97	93	—
Median year in university	2.00	2.00	—
Median age (range)	20.57 (17–44)	20.71 (16–69)	—
% who worked 40+ hr/week	—	—	98.6%

material striving and that responses to the ROM are not driven by conscientiousness, socially desirable responding, time, or material affluence. Thus, this measure is a valid and efficient way of measuring time versus money orientations that is not influenced by situational factors such as momentary feelings of time and material affluence.

Overview

In Study 1, we examined the association between the ROM and students’ willingness to socialize with new peers on campus ($N = 127$). In Study 2, we examined the association between the ROM and how long students spent interacting with a new social acquaintance ($N = 380$). Finally, in Study 3, we examined the association between the ROM and employees’ self-reported willingness to interact with colleagues about work and nonwork-related topics ($N = 298$). Detailed demographic characteristics of participants from each study are presented in Table 1. Our materials and data are available through the Open Science Framework (https://osf.io/cu64s/?view_only=18441b261ff74d4397f7b6352f0874f1).¹ Study 3 was preregistered (https://osf.io/kj4h9/?view_only=f7af164824b0407398bd48dbfb15c4d1).

Study 1

Method

Participants

We recruited students from a large public institution in Canada to participate in our study for course credit. We were able to include these items as part of a larger survey. We made the a priori decision to stop data collection for this larger study at the end of the 2013–2014 academic year. This stopping rule resulted in a total of $N = 127$ participants (75% female, $M_{\text{age}} = 20.57$, $SD = 4.03$).

Procedure and measures

After providing informed consent, participants completed the ROM. Next, participants reported the percentage of time that they had spent in the last 7 days attending class, working, and studying. Participants were asked to report what percentage of time they

Table 2. Regression predicting % of time spent socializing with new peers from ROM and covariates in Study 1.

Predictor	β	B	SE	p Value for predictor	F value for model	p Value	R ²
ROM	.26	9.32	3.30	.006			
Time pressure	−.005	−0.07	1.35	.957			
Extraversion	.10	2.35	2.23	.295			
Conscientiousness	−.06	−1.79	2.74	.514			
Age	−.01	−0.05	0.41	.912			
Gender (1 = Female)	−.002	−0.09	3.66	.981			
Ethnicity (1 = Caucasian)	.10	4.24	4.09	.302	F(7, 125)	1.34	.240
							.07

had spent socializing with (a) new people they had met since arriving at the University of British Columbia (UBC) and (b) people they had met *before* arriving at UBC. Participants then completed a 9-item measure of time pressure ($\alpha = .90$; Brown & Kasser, 2005), the extraversion and conscientiousness subscales of the Big Five Inventory ($\alpha = .86$; $\alpha = .81$, John & Srivastava, 1999), and basic demographics including age, gender, ethnicity, and English fluency (Table 1).

Results

Socializing

Participants who prioritized time over money on the ROM spent more time in the last 7 days interacting with students who they had met since becoming a student at UBC ($M = 24.45\%$, $SD = 18.76$) than students who prioritized money over time ($M = 15.72\%$, $SD = 14.37$), $t(118.29) = 2.95$, $p = .004$, 95% CI [2.87, 14.59], $d = .52$. Reporting these results in the regression framework, prioritizing time over money was a significant predictor of the amount of time that students spent socializing with peers who they had met at UBC, $\beta = .24$, $p = .007$; these results were unchanged when we included current feelings of time pressure, extraversion, conscientiousness, age, gender, and ethnicity into the model as covariates, $\beta = .26$, $p = .006$. See Table 2 for the final regression model including covariates. The ROM did not predict the amount of time that students spent socializing with people they had met prior to coming to UBC, $p = .662$. These findings suggest that valuing time over money was specifically associated with students’ willingness to invest time interacting with new peers.

Working versus socializing

We then created a difference score between the percentage of time students spent attending class, working, or studying and the percentage of time that they socialized with new friends; on this measure, higher numbers signify a greater percentage of time spent working versus socializing with new peers. Since the participants’ primary occupation was being a student, “working” was comprised of working for pay, studying, and going to class.

Table 3. Regression predicting % of time spent socializing with new peers versus working from ROM and covariates in Study 1.

Predictor	β	B	SE	p Value for predictor	F value for model	p Value	R ²
ROM	−.29	−21.73	6.70	.002			
Time pressure	.16	4.75	2.71	.082			
Extraversion	.05	2.61	4.52	.565			
Conscientiousness	.13	7.45	5.63	.189			
Age	−.02	−0.22	0.84	.798			
Gender	−.13	−7.92	8.36	.346			
Ethnicity (1 = Caucasian)	−.09	−10.78	7.71	.165	F(7, 117)	2.40	.025
							.13

As expected, students who valued time more than money spent less time working versus socializing with new peers ($M = 28.47\%$, $SD = 38.14$) as compared to students who valued money more than time ($M = 48.28\%$, $SD = 29.34$), $t(117) = 3.01$, $p = .003$, 95% CI $[-32.87, -6.76]$, $d = .58$. Reporting these results in the regression framework, prioritizing money over time was a significant predictor of the amount of time that students spent working versus socializing, $\beta = -.27$, $p = .003$; these results were unchanged when we included time pressure, extraversion, conscientiousness, age, gender, and ethnicity into the model, $\beta = -.29$, $p = .002$. Table 3 presents the regression model including covariates, and Table 4 lists the mean differences reported across each time-use outcome. As evidenced in Table 4, after using the Bonferroni correction to adjust for multiple comparisons, participants who valued time over money spent more time socializing with students they had met since becoming a UBC student. Participants who valued time over money also spent more time socializing with new peers versus working (Table 4). There were no other reliable differences in self-reported time use for students who valued time versus money.

Discussion

In Study 1, prioritizing time over money was associated with spending more time interacting with new peers overall and as compared to attending class, working, and studying. An important limitation from Study 1 is that we relied on self-reported behavior. We therefore sought to replicate these findings with behavioral outcomes in a tightly controlled lab study.

Study 2

Method

Participants

We recruited students from UBC to participate in a 1-hr lab study for course credit. These data were collected as part of a larger experimental study. We chose a target sample size of 300 participants, and we made the a priori decision to stop data collection

Table 4. Table indicating ROM predicting each of the activity categories over the last 7 days.

	Valuing time versus Money	Valuing money versus time	Statistics
% of time socializing with new peers, met since UBC	24.45% (18.76)	15.72% (14.37)	$t(118.29) = 2.95, p = .004$
% of time socializing with new peers versus working	29.09% (36.61)	49.15% (29.11)	$t(117) = 3.15, p = .002$
% of time socializing with peers, met before UBC	11.58% (10.32)	12.46% (12.05)	$t(125) = -.44, p = .662$
% of time spent working	5.83% (9.90)	9.47% (12.89)	$t(125) = -1.79, p = .076$
% of time spent studying	19.77% (14.22)	22.07% (13.02)	$t(117) = -.89, p = .377$
% of time spent in class	26.92% (14.24)	31.79% (13.31)	$t(125) = 1.91, p = .058$
% of time alone	31.22% (16.39)	31.19% (15.62)	$t(125) = .01, p = .991$

Note. After adjusting for multiple comparisons using the Bonferroni correction (adjusted significance level, $p = .01$), time spent socializing with new peers at UBC is the only reliable difference between groups.

at the end of the 2015–2016 academic year. This stopping rule resulted in collecting a total of 358 participants (83% female, $M_{\text{age}} = 20.71, SD = 3.91$).

Procedure and measures

Participants completed the ROM at the beginning of the year as part of a departmental prescreening survey. This survey included 30 min of unrelated questions and was implemented approximately 2 months prior to the lab study, thereby reducing social desirability concerns (Chmielewski & Watson, 2009). In the lab, after providing informed consent, participants completed a task where they were asked to play the role of consultants and bill for their time (DeVoe & Pfeffer, 2010; Whillans & Dunn, 2015). We varied whether participants were asked to bill their time at the end of the task or by the minute every 6 min (DeVoe & Pfeffer, 2010); this task variation did not predict any of our key outcomes or interact with the ROM and is not discussed further. After completing this 35-min task, participants were provided with the opportunity to have a conversation with another participant. In reality, this other participant was a research assistant. Participants were told that they could leave the study immediately after having this conversation. By keeping the conversation brief, participants could leave the lab early and spend this free time in other ways. The conversation between the participant and the confederate was audiotaped, ostensibly as part of another study on first impressions. The full study protocol is available through the Open Science Framework.

We provided the conversation partners with a list of 36 questions from the Fast Friends paradigm, which is designed to help two people get to know each other by taking turns answering each question (Aron, Aron, & Smollan, 1992; Page-Gould, Mendoza-Denton, & Tropp, 2008). These questions begin casually (e.g., Question 1: “Who would you like to have dinner with, if you could have dinner with anyone in the world?”) and the questions become progressively more intimate (e.g., Question 36: “Discuss a personal problem, and solicit advice from your partner about this problem.”). Participants were asked to begin the laboratory session by asking and answering the first question and

then continuing sequentially through the Fast Friends questions until they felt as if they had gotten to know their partner “well-enough.”

The confederates were trained to behave in a standardized manner, following the participant’s lead (i.e., whenever the participant suggested stopping the conversation, the confederate agreed, but went along with the participant until this point). The participant was required to decide whether to continue the interaction after each question, thereby ensuring that the participant had control over the decision to proceed in the conversation.

Because the study was scheduled only for 1 hr, participants were stopped by the experimenter 5 min before the end of the hour so that they could complete the post-task questions (described subsequently) and be debriefed.

Objective measures. The number of questions that participants answered provided an index of participants’ motivation to establish intimacy. We also timed how long the interaction continued, and whether participants ran out of time and had to be stopped by the experimenter.

Subjective measures. After stopping the interaction, both the participant and the research assistant were taken to separate lab rooms and were asked to complete the identical measures about the prior interaction. All items were assessed on a scale ranging from 1 = *not at all* to 10 = *completely*. Individuals first completed a 2-item measure assessing their partners’ anxiety during the interaction (participant: $\alpha = .79$, experimenter: $\alpha = .90$). Participants then completed a 6-item measure assessing their partners’ interest in the interaction (participant: $\alpha = .87$, experimenter: $\alpha = .94$). Participants then completed a 9-item measure assessing how close they felt to the participant after the interaction (e.g., “How close do you feel to the other participant in this study?” and “In the future, to what extent do you feel that you could be friends with the other participant in this study?” participant: $\alpha = .92$, experimenter: $\alpha = .96$). All of these measures were drawn from previously published research (Mellings & Alden, 2000).

Lastly, participants completed brief demographic measures by reporting their age, gender, whether they were a full-time student, whether they were fluent in English, and their socioeconomic background. Specifically, participants completed a 1-item measure assessing their parents’ highest level of education. Although family SES can be measured in a variety of ways, the decision to use education was made based on previous research showing that students’ self-reports of parents’ education tends to be a more reliable indicator of family SES as compared to students’ reports of their parents’ income or their occupational status (Kayser & Summers, 1973). Including this measure allowed us to rule out the possibility that any effect of valuing time over money was driven by social class differences between students who reported valuing time and students who reported valuing money.

Two trained coders listened to the audio recordings and rated how close the interaction partners were at the end of the study. The coders rated the closeness of the interaction partners using the 1-item inclusion of self in other scale (interrater reliability $\alpha = .89$; Aron et al., 1992). The confederates and the trained coders were blind to the study hypothesis.

Table 5. Regression predicting the objective amount of time spent socializing in Study 2.

Predictor	β	B	SE	p Value for predictor	F value for model	p Value	R ²
ROM	−.15	−98.58	35.93	.006			
SES background	−.003	−0.52	10.62	.961			
Age	.04	3.24	4.74	.494			
Gender (1 = Female)	.04	31.09	48.17	.519			
Ethnicity (1 = Caucasian)	−.07	−53.13	39.94	.961	$F(5, 331) = 2.02$	.075	.030

Note. SES = socioeconomic status.

Results

Objective measures

Participants who valued time over money answered more questions from the Fast Friends protocol ($M = 10.58, SD = 6.34$) than participants who valued money over time ($M = 9.00, SD = 4.27$), $t(290.50) = 2.70, p = .007$, 95% CI [.43, 2.73], $d = .29$. Participants who valued time over money spent longer getting to know their partner ($M = 10:25_{\text{minutes}}, SD = 5:17$) as compared to participants who valued money more than time ($M = 8:54_{\text{minutes}}, SD = 5:29$), $t(338) = 2.59, p = .010$, 95% CI [0:00:21, 0:02:40], $d = .33$. Stated differently, participants who valued time over money spent approximately two more minutes interacting with their partner. Given that these interactions were 11 min on average, students who valued time more than money spent approximately 18% more time socializing with their interaction partner as compared to students who valued money more than time. These results held controlling for age, gender, ethnicity, and socioeconomic background, $\beta = -.15, p = .007$. Table 5 presents the regression model including covariates. Participants who valued time were also more likely to have their interaction stopped by the experimenter (29.6%) than participants who valued money (19.9%), $\chi^2(335) = 4.23, p = .040$. Conducting binary logistic regression, these results held controlling for age, gender, ethnicity, and socioeconomic background, $B = .63, SE = .27, Wald = 5.62, p = .018, \text{Exponent}(B) = .53$. Table 6 presents the full regression model including covariates.

Subjective measures

There was no direct effect of responses to the ROM on any of the subjective closeness measures (Table 7). These results suggest that the orientation to value time over money was predictive of social motivation as opposed to social skill or enjoyment.

Discussion

In Study 2, participants who valued time more than money completed more of the Fast Friends questions during the task than participants who valued money more than time. These results held controlling for students' socioeconomic background and for age, gender, and ethnicity. An important limitation from Studies 1 and 2 is that we relied on

Table 6. Logistic regression predicting who stopped the interaction in Study 2 (1 = Experimenter).

Predictor	B	SE	Wald	p Value for predictor	χ^2 for model	p Value	R ²
ROM	-.63	.27	5.62	.018			
SES background	.04	.08	0.20	.657			
Age	.02	.03	0.34	.557			
Gender (1 = Female)	-.24	.34	0.50	.480			
Ethnicity (1 = Caucasian)	-.77	.33	5.63	.018	11.87	.037	.053

Note. SES = socioeconomic status.

Table 7. The direct effect of the ROM on subjective social connection measures in Study 2.

	Valuing time versus money	Valuing money versus time	Statistics
Participants' self-reported closeness to the researcher	6.13 (1.51)	6.12 (1.62)	$t(345) = 0.04, p = .969$
Participants' perception of the researchers' interest	6.09 (1.53)	6.35 (1.54)	$t(345) = -1.57, p = .116$
Researchers' self-reported closeness to the participant	5.56 (2.00)	5.50 (1.92)	$t(344) = 0.26, p = .792$
Researchers' perception of the participants' interest	6.07 (1.85)	5.79 (1.83)	$t(344) = 1.43, p = .154$
Coders' perception of the closeness of the dyad	3.02 (1.42)	2.94 (1.59)	$t(329) = 0.46, p = .647$

student samples, who might think about time and money very differently than working adults. We therefore sought to replicate the association between valuing time versus money and socializing with a sample of working adults.

Study 3

Method

Participants

We recruited employed adults from a large communication firm, who completed our measures of interest voluntarily as part of an annual satisfaction survey. The company we were working with made the a priori decision to stop data collection after fielding the survey for 3 weeks. This stopping rule resulted in a total of $N = 298$ participants (95% employed full-time).

Procedure and measures

After providing informed consent, participants completed the ROM. Next, participants reported the percentage of time that they had spent in the last 7 days socializing with

colleagues and clients/customers about work and nonwork-related matters. Participants also reported the number of hours that they worked in the past 7 days as well as their current job title (e.g., Account Executive, Account Manager, C-Suite). To ensure that the associations between the ROM and socializing were not driven by factors such as the number of hours worked or job status, we controlled for these variables in our analyses. Following recent research looking at the behavioral consequences of workplace social status (Kessler, Milkman, & Zhang, 2017), we controlled for whether employees worked in the C-suite or were a VP.

Results

Socializing

As predicted, employees who prioritized time over money on the ROM spent more time in the last 7 days interacting with colleagues about nonwork-related matters ($M = 16.15\%$, $SD = 11.74$) than employees who prioritized money ($M = 12.77\%$, $SD = 10.09$), $t(298) = 2.66$, $p = .008$, 95% CI [.88, 5.88], $d = .31$. Reporting these results in the regression framework, prioritizing time over money was a significant predictor of the amount of time that employees spent socializing with colleagues about nonwork-related matters, $\beta = .15$, $p = .008$; these results were unchanged when including hours worked in the last 7 days into the model as a covariate, $\beta = .14$, $p = .013$ and when only including respondents who said that their job involved talking with colleagues ($N = 283$), $\beta = .16$, $p = .008$. These results were also unchanged when we included the number of hours respondents worked in the last 7 days and job title in the model as covariates, $\beta = .12$, $p = .036$. The ROM did not significantly predict the amount of time that employees discussed work-related matters with colleagues or work and nonwork-related matters with clients/customers, $ps \geq .351$. Valuing time over money was specifically associated with greater willingness to invest time interacting with colleagues about nonwork-related matters.

Working versus socializing

We then created a difference score between the percentage of time that employees spent working and the percentage of time that they reported socializing with colleagues about nonwork-related matters in the last 7 days; on this measure, higher numbers signify a greater percentage of time spent working versus socializing with colleagues about nonwork-related matters. As expected, employees who valued time more than money spent less time working versus socializing with their colleagues ($M = 31.03\%$, $SD = 14.33$) as compared to employees who valued money more than time ($M = 36.78\%$, $SD = 15.95$), $t(298) = 3.19$, $p = .002$, 95% CI [2.20, 9.31], $d = .38$. Reporting these results in the regression framework, prioritizing money (vs. time) was a significant predictor of the amount of time that employees spent working versus socializing, $\beta = -.18$, $p < .001$. Once again, these results held when we controlled for the number of hours that employees worked in the past 7 days and their job title, $\beta = -.09$, $p = .036$.

As evidenced in Table 8, after using the Bonferroni correction to adjust for multiple comparisons, employees who valued time over money spent more time socializing with

Table 8. Table indicating ROM predicting each of the activity categories over the last 7 days.

	Valuing time versus money	Valuing money versus Time	Statistics
% of time socializing with colleagues, work	57.03% (25.61)	59.62% (26.39)	$t(298) = 0.84, p = .400$
% of time socializing with colleagues, nonwork	16.15% (11.74)	12.77% (10.09)	$t(298) = -2.66, p = .008$
% of time socializing with colleagues, nonwork versus working	31.03% (14.33)	36.78% (15.95)	$t(298) = 3.19, p = .002$
% of time socializing with clients/customers, work	41.01% (34.02)	41.44% (32.18)	$t(298) = -0.11, p = .912$
% of time socializing with clients/customers, nonwork	6.24% (12.04)	5.22% (6.91)	$t(298) = -0.94, p = .351$
% of time spent working	47.18% (7.03)	49.55% (11.69)	$t(295.18) = -2.19, p = .029$

Note. After adjusting for multiple comparisons using the Bonferroni correction (adjusted significance level, $p = .01$), time spent socializing with colleagues about nonwork is the only reliable difference between groups.

their colleagues about nonwork-related matters. Respondents who valued time over money also spent more time socializing with colleagues versus working (Table 8). There were no other reliable differences in self-reported time use for employees who valued time over money in this study.

General discussion

Using a recently developed measure (ROM), we provide the first evidence that the stable preference to prioritize time over money predicts people's willingness to engage in daily social interactions. In Study 1, students who prioritized time over money reported spending more time socializing with other new students. In Study 2, students who prioritized time over money spent more time getting to know a new peer. There was no influence of valuing time over money on perceived closeness, suggesting that time and money preferences are associated with lower social motivation as opposed to lower social skill. In Study 3, we replicated our survey results in a preregistered study: Employees who valued time over money spent less time interacting with their colleagues about nonwork-related matters. These results were robust controlling for extraversion, conscientiousness, time pressure (Study 1), and demographic characteristics such as gender and age (Studies 1 to 3). Consistent with prior research (Whillans et al., 2016), these results held controlling for proxies of income, including number of hours worked and job title (Studies 2 and 3). Study 2 provides the strongest evidence that these results were not driven by socially desirable responding—even when the ROM was implemented 2 months prior to the outcome measures of interest, valuing time over money significantly predicted the amount of time that people spent socializing with a new peer.

Across studies, people who valued money more than time were less interested in social interactions that could come at a cost to their ability to study or work (Study 1) or to complete any other activity (Study 2). In Study 3, people who valued money versus

time were less interested in workplace interactions that could potentially have an immediate cost to their productivity, such as having discussions with colleagues about nonwork-related topics. Following from these findings, we propose that our results should be most pronounced when socializing comes at a cost to productivity. More research is needed to examine whether these results can be mitigated or reversed when the social interaction explicitly facilitates productivity.

While past research has found evidence that how people are paid at work can affect how people think about and make decisions about spending time (DeVoe & Pfeffer, 2007a, 2007b; Evans, Kunda, & Barley, 2004; Kaveny, 2001; Whillans & Dunn, 2015), the current research suggests that people's chronic orientations to value time and money can also impact time use—with possible implications for subjective well-being. Indeed, recent research has found evidence that prioritizing time over money is linked to greater well-being (Herschfield, Mogilner, & Barnea, 2016; Whillans, Dunn, Smeets, Bekkers, & Norton, 2017; Whillans et al., 2016). The current research therefore sheds light on an unexplored path by which valuing time over money might shape happiness—by encouraging social connection.

The quantity and quality of social connections can have far-reaching consequences for psychological and physical functioning (House, Landis, & Umberson, 1988; Uchino, Cacioppo, & Kiecolt-Glaser, 1996). A recent meta-analysis suggests that the influence of social relationships on mortality is comparable or larger than that of other well-established risk factors for mortality such as smoking and obesity (Holt-Lunstad, Smith, & Layton, 2010). Furthermore, a large body of research shows that socializing is the happiest part of many people's day (see Mogilner, Whillans, & Norton, 2018, for a recent review). On a daily basis, fleeting social interactions with strangers and acquaintances also play a surprisingly important role in shaping social belonging (Dunn, Biesanz, Human, & Finn, 2007; Sandstrom & Dunn, 2014a, 2014b). Taking time to chat with a cashier at Starbucks—rather than maximizing the efficiency of this transaction—can provide a significant boost to customers' mood and their belonging (Sandstrom & Dunn, 2014b). Over time, sacrificing casual social interactions to work, save time, or be efficient may put people at an increased risk for social isolation and unhappiness. Future research should therefore directly test the proposed pathway from valuing time over money to more frequent social interactions, to greater positive affect, and overall subjective well-being.

In the studies we conducted, participants were asked to report on their social interactions in only one relationship domain (school or work). However, social interactions with both weak ties (acquaintances at school or work) and strong ties (close friends and family) can facilitate social belonging (Epley & Schroeder, 2014; Sandstrom & Dunn, 2014a, 2014b). If someone prioritizes money and engages in fewer social interactions at work and outside of work, they might be at the greatest risk for social disconnection. It would therefore be worthwhile to examine the influence of valuing time over money across multiple relationship domains.

Relatedly, while the current article focused on how valuing time over money was linked to casual social interactions as a first test, ultimately, we are more broadly interested in examining how valuing time over money can shape the development and maintenance of close social relationships. This work lays the groundwork for research

examining how the preference to value time over money predicts work–life balance decisions (choosing to work more vs. socializing more) and how these decisions in turn shape the well-being of couples and families.

Another implication of this research concerns how time and money orientations shape productivity and organizational citizenship. At first, employees who are willing to spend time making small talk with new colleagues might be less productive (Bandiera, Barankay, & Rasul, 2008). Yet these same employees might also build more social capital and become more efficient over time, particularly in workplace contexts that require interpersonal trust (Jiang, 2015). For example, interacting with colleagues and other “weak ties” can help to promote well-being, creativity, and innovation (Granovetter, 1973; Sandstrom & Dunn, 2014a, 2014b).

Future research could also examine whether cross-cultural differences in the value that people place on their time explain cultural differences in well-being. A current puzzle in the happiness literature is why some countries show overall gains in happiness from increased wealth while others do not (e.g., Brockmann, Delhey, Welzel, & Yuan, 2009; Diener, Tay, & Oishi, 2013). Cultural differences in the value that people place on their time may help to explain changes in the happiness of countries across time. If wealth increases in countries where valuing time over money is more socially acceptable, wealth could be more likely to translate into enhanced national happiness through lower work hours and greater time spent socializing.

It is worth noting that a limitation of this research is our reliance on correlational designs. These studies cannot rule out the possibility of reverse causality: after investing more time in social relationships and experiencing the benefit of doing so, people might be more likely to prioritize time over money. Bidirectional effects are also plausible whereby people who value time over money, and who engage in more frequent social interactions, may come to further value their time relative to their money. Longitudinal research should explore this possibility.

Conclusion

Overall, these findings provide initial evidence that people’s general tendencies to prioritize time over money are associated with a greater proclivity to prioritize social interactions. These findings underscore the importance of considering the trade-offs that people make between time and money when attempting to understand patterns of social connectedness.

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Open research statement

Study 3 of this paper was preregistered. The data and materials used in the research are available through the Open Science Framework.

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Note

1. In Studies 1 to 3, we conducted the Wu–Hausman test to rule out the possibility of simultaneity bias (Chmelarova, 2007; Hausman, 1978). Using this test, we examined whether our results were driven by unexpected correlations between the explanatory variable (ROM) and the error term in our regression models. In each study, the Wu–Hausman test of simultaneity in our primary regression models (ROM predicting social interactions with covariates) was nonsignificant ($ps \geq .1587$). We therefore concluded that ordinary least square regressions were appropriate to use. Furthermore, our regression models met normality and linearity assumptions. The key output pertaining to the Wu–Hausman tests and compliance with linearity and normality are posted to the Open Science Framework.

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