

# Can't Buy Me Love (or Friendship): Social Consequences of Financially Contingent Self-Worth

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Personality and Social  
Psychology Bulletin  
1–17  
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DOI: 10.1177/0146167220910872  
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## Abstract

Although people may think that money improves one's relationships, research suggests otherwise. Focusing on money is associated with spending less time maintaining relationships and less desire to rely on others for help. But *why* does focusing on money relate to worse social outcomes? We propose that when people base their self-esteem on financial success—that is, have financially contingent self-worth—they are likely to feel pressured to pursue success in this domain, which may come at the expense of spending time with close others. Consistent with this idea, results of four cross-sectional studies ( $N = 2,439$ ) and a daily diary study ( $N = 246$ ) revealed that basing one's self-worth on financial success is associated with greater feelings of loneliness and social disconnection, and this may be related to experiencing less autonomy and spending less time with family and friends.

## Keywords

contingencies of self-worth, autonomy, loneliness, social connection, well-being

Received May 4, 2019; revised accepted February 12, 2020

In F. Scott Fitzgerald's classic novel *The Great Gatsby*, Jay Gatsby believes that financial success will make him a worthwhile person and lead to love and approval from others. After amassing a fortune, Gatsby showcases his wealth by throwing lavish parties that attract thousands of people. However, none of the guests seem to know their host and when Gatsby meets an untimely death, his "friends" couldn't be bothered to attend the funeral.

Gatsby assumed that achieving financial success would enable him to foster close relationships with others and dissipate his feelings of loneliness. However, research suggests that the mere presence of money can diminish concerns about social relationships. For example, focusing on money shifts people's attention more toward themselves than toward others and reduces the desire to seek support from or interact with others (Bianchi & Vohs, 2016; Vohs, 2015; Whillans & Dunn, 2019). Although previous studies have documented a link between valuing money and decreased socializing, it remains unclear why this association exists.

The present research addresses this question by examining the associations between contingent self-worth, perceptions of pressure, and social outcomes. We propose that enjoying financial success is not problematic per se, but that basing one's self-esteem on

financial success—that is, having financial contingency of self-worth (CSW; Park et al., 2017)—may be uniquely associated with feelings of loneliness and social disconnection. When people stake their self-worth on financial success, they are likely to perceive pressure in their lives—stemming from a desire to achieve success and avoid failure in this domain—which may be related to spending less time on activities not central to this domain, such as interacting with family and friends. When people interact less often with close others, they may experience greater loneliness and social isolation (Cacioppo et al., 2016; Uchino et al., 1996). The current research thus examines the relationship between financially contingent self-worth and social outcomes via perceived pressures and decreased time spent with close others.

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## Money and Social Outcomes

Money is a valued commodity that allows individuals to pursue their goals and be independent and self-sufficient. Merely activating thoughts of money leads to behaviors consistent with seeking independence. For example, exposure to money-related (vs neutral) words decreased participants' intentions to interact with others and time spent socializing with others (e.g., talking with others, texting or calling others) (Mogilner, 2010). Along similar lines, participants who were exposed to money-related words and images were less likely to seek help or to offer help to others, put more physical distance between themselves and others, and showed greater interest in solitary activities than those who were not exposed to money-related content (Vohs et al., 2006). Higher household income is also associated with less time spent socializing with family members and neighbors and more time spent alone (Bianchi & Vohs, 2016).

Together, the extant literature suggests that money is associated with behaviors that reinforce independence and distance from others (see Vohs, 2015 for a review). Although there are benefits to having money, pursuing financial success to protect, maintain, and enhance self-esteem may lead to feelings of pressure and obligation to achieve success in this domain, which may detract from the quality of people's relationships and sense of connection with others.

## Financial CSW

Individuals differ in the domains on which they base their self-esteem. Whereas some people derive self-worth from their academic performance, others may base their self-worth on being physically attractive or living up to their moral or ethical standards (Crocker & Wolfe, 2001). People who value money as a basis of self-worth feel compelled to achieve success and to avoid failure in this domain to feel good about themselves and avoid feeling bad about themselves (Park et al., 2017).

Past research indicates that when people pursue financial success for self-esteem reasons, they are likely to experience negative outcomes. For example, across both college student and adult community samples, individuals who based their self-worth on financial success were more likely to compare their financial status with others, experienced more financial hassles, and experienced greater stress and anxiety than those with lower Financial CSW (Park et al., 2017). These findings emerged even after controlling for financially relevant variables such as financial status, materialism, financial aspirations, and perceived economic hardship. While individuals may value money for a variety of reasons, such as wanting financial security, power over others, or reducing feelings of uncertainty (Srivastava et al., 2001), Financial CSW reflects a desire to achieve financial success to fulfill the goal of protecting, maintaining, and enhancing self-esteem in particular.

## Financial CSW and Feelings of Pressure

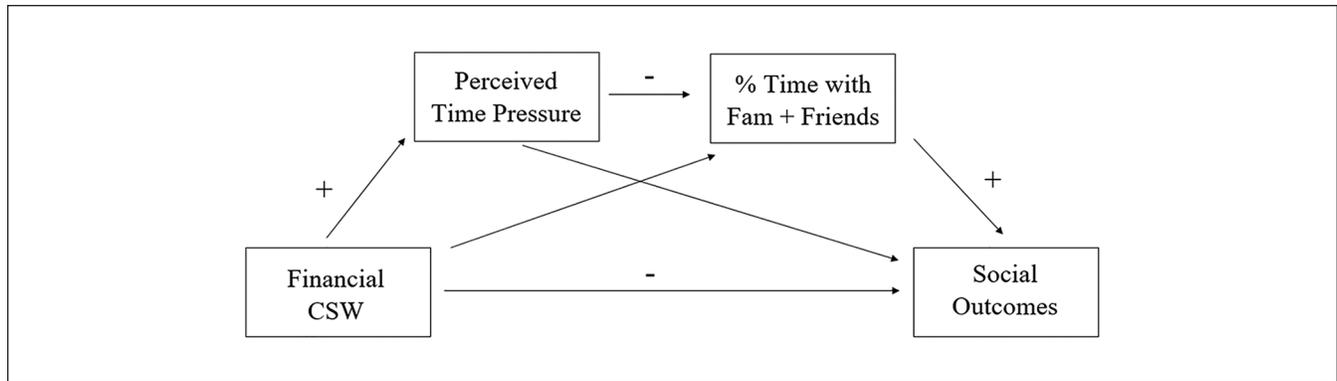
Contingencies of self-worth are a form of introjected self-regulation that involves motivation through pressure, obligation, and "shoulds," rather than by free will or choice (Crocker & Wolfe, 2001; Deci & Ryan, 2000; Ryan & Deci, 2006). Although striving for success in contingent domains can be emotionally rewarding, this pursuit is thought to be detrimental because people feel controlled in their motivational orientation; they do not feel free to decide what behaviors or activities to pursue because they feel compelled, first and foremost, to achieve success in domains of contingency (Crocker et al., 2006; Crocker & Park, 2004). Consistent with this idea, research has shown that individuals who base their self-worth on financial success experience lower autonomy than those who do not strongly base their self-worth in this domain, and report lower feelings of state autonomy after being prompted to think about a dissatisfying aspect of their financial situation (Park et al., 2017). These findings emerged even after controlling for materialism and financial aspirations, suggesting that Financial CSW is uniquely related to feelings of autonomy at both the trait and state level.

One way in which autonomy could manifest in everyday life is through perceptions of time pressure. People who report that life is "too busy" or "too hectic" show lower life satisfaction, less positive affect, and more negative affect (Kasser & Sheldon, 2009). Similarly, people who possess low job autonomy—who feel like they do not have the ability to decide when, where, or how to work—report greater time pressure (Garling et al., 2014), which predicts less job satisfaction and overall life satisfaction (Thompson & Prottas, 2005). Based on such findings, we hypothesize that when people are motivated to pursue financial success for self-esteem reasons, they may be susceptible to experiencing greater pressure in their lives, such as perceiving greater time pressure or a lack of autonomy more generally.

## Financial CSW and Time Spent with Others

When people feel that time is scarce, they may prioritize life domains that are most relevant to their contingencies of self-worth at the expense of spending time in other areas. Those with Financial CSW may choose to spend less time on activities that are unrelated to or might take time away from pursuing financial success, such as spending time with family and friends.

Supporting this idea, research on materialism—a construct that is independent albeit related to Financial CSW—finds that preoccupation with possessions and wealth is associated with neglecting other meaningful areas of life (Kasser & Ryan, 1993). Other studies have found that people who prioritize money over time report lower well-being in terms of less life satisfaction, less frequent positive emotions, and more



**Figure 1.** Hypothesized model. Perceived time pressure and percentage of time spent with family/friends are expected to mediate the relationship between Financial CSW and social outcomes.

Note. CSW = contingency of self-worth.

frequent negative emotions than those who value time over money (Hershfield et al., 2016; Whillans et al., 2016). Notably, the connection between valuing money and lower well-being is thought to involve decreased engagement in social relationships. For example, college students who value money over time are less likely to engage in social interactions with new peers (Whillans & Dunn, 2019).

We propose that people who value money *as a basis of self-worth* are more likely to feel pressure, given their sense of obligation to achieve financial success and to avoid failure in this domain. Specifically, we sought to assess pressures that were proximal to people's everyday experience. The initial studies thus centered on time pressure, because we expected this experience to be a more concrete, salient, and relatively easy-to-report aspect of people's lives than reporting on perceived feelings of pressure in general. In addition, time pressure is directly related to the amount of time that people spend socializing with friends and family and, therefore, has been shown to be a concrete, well-validated and predictive mechanism of this construct (Mogilner et al., 2018). We expected that perceptions of time pressure would be associated with spending less time on activities peripheral to financial pursuits—including spending time with close others—which may ultimately be related to feelings of loneliness and social disconnection. Figure 1 presents the hypothesized model.

## Preliminary Studies

Two preexisting datasets allowed us to conduct preliminary analyses examining the links between Financial CSW, perceptions of pressure, time allocation, and social outcomes (i.e., loneliness, social disconnection). Participants were recruited using Qualtrics (preliminary study A) or Amazon Mechanical Turk (MTurk; preliminary study B), which are online survey platforms that allow researchers to request users to complete various types of studies. Although we were unable to test the full sequential mediation model in these

initial studies (i.e., Figure 1), we were able to test specific components of the model.

In Study A ( $N = 821$ ), we hypothesized that higher Financial CSW would be related to greater feelings of loneliness via spending less time with family and friends. In Study B ( $N = 333$ ), we hypothesized that higher Financial CSW would be related to lower feelings of social connection via greater perceived time pressure (see “Supplemental Materials” for methods and results of these preliminary studies and “Methodology File” for all studies). Overall, the results of these studies supported key components of the hypothesized model. Study A showed that the relationship between Financial CSW and greater loneliness was partially explained by less time spent with family and friends. Study B showed that the relationship between Financial CSW and lower feelings of social connection was partially explained by greater perceptions of time pressure. These findings emerged even after accounting for effects of age, gender, marital status, income, materialism, extraversion, and perceived economic hardship. Materialism was not significantly related to perceptions of time pressure or social connection (see “Supplemental Materials”), suggesting that Financial CSW was uniquely associated with these outcomes.

## Current Research

Building upon these findings, the present studies examined psychological processes linking financial success as a basis of self-worth with negative social outcomes. Specifically, we hypothesized that people with higher Financial CSW would experience greater loneliness and social disconnection than those with lower Financial CSW, and this may be related to experiencing greater pressure (e.g., time pressure, lack of autonomy) and spending less time with close others (Figure 1). We expected these associations to emerge above and beyond effects of demographic, personality, or other financially related variables. Studies A and B (summarized above) provided initial evidence for specific components of

the hypothesized model. Study 1 tested the full sequential mediation model and alternative models, and Studies 2 and 3 sought to replicate the findings of Study 1 using cross-sectional and daily diary methods.

## Study 1

The purpose of Study 1 was to replicate and extend the findings of our preliminary studies by testing the full model, in which perceptions of pressure and time allocation were expected to account for the relationship between Financial CSW and social outcomes in a sequential manner, controlling for demographic and financially relevant covariates (Figure 1). We also sought to assess perceptions of pressure more generally by measuring autonomy. The hypotheses, materials, and analysis plan were preregistered using the Open Science Framework ([https://osf.io/3qfzd/?view\\_only=ebb22c7db9f04e72acc2f4c086e2fa4f](https://osf.io/3qfzd/?view_only=ebb22c7db9f04e72acc2f4c086e2fa4f)).

### Participants and Procedure

A total of 345 participants<sup>1</sup> (42.6% male;  $M_{age} = 37.59$ ,  $SD = 11.72$ ) were recruited from Amazon's Mechanical Turk to complete an online study in exchange for US\$1.00. The sample consisted of 76.2% Caucasians, 9.6% African Americans, 7.0% Asians, 4.1% Hispanics, and 3.2% other ethnicities. A Monte Carlo power simulation of data from the preliminary studies revealed that 350 participants were needed to achieve 0.80 power for the proposed sequential mediation design (Schoemann et al., 2017).

### Materials

Participants completed the following measures in the order listed below.

**Financial CSW.** Participants reported the degree to which they based their self-worth on financial success (e.g., "My self-esteem is influenced by how much money I make"; "I feel bad about myself when I feel like I don't make enough money"; five items,  $\alpha = .79$ ; Park et al., 2017) on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*).

**Time pressure.** Participants reported the extent to which they perceived time pressure (e.g., "There have not been enough minutes in the day," "I have felt like things have been really hectic," three items,  $\alpha = .77$ ) from 1 (*strongly disagree*) to 7 (*strongly agree*) (Kasser & Sheldon, 2009).

**Time allocation.** Participants indicated the percentage of time they spent over the past week engaged in the following activities: (a) being alone (i.e., when you are awake, but not with other people or doing work-related tasks), (b) working alone, (c) working with coworkers (either in-person or virtually), (d) socializing with friends or family in-person (outside of a

work context), and (e) using technology to connect with family and friends. Categories were adapted from the Day Reconstruction Model (Kahneman et al., 2004). Of particular interest was time spent "socializing with family and friends in-person;" the other categories were included to help participants accurately estimate their weekly time allocation.

**Autonomy.** Although the present study focused on time pressure, this construct may be tied to the broader construct of autonomy—that is, perceiving a sense of control and choice over one's activities and behaviors. Sample items on this scale were, "I feel pressured in my life" (reverse-scored) and "I feel like I am free to decide for myself how to live my life," seven items,  $\alpha = .80$  on a scale from 1 (*not at all true*) to 7 (*very true*) (Deci & Ryan, 2000).

**Loneliness.** Participants reported how often they felt lonely and isolated by responding to the same items as in Preliminary Study A, but on a scale from 1 (*never*), 2 (*rarely*), 3 (*some of the time*), to 4 (*often*) (three items,  $\alpha = .89$ ; Russell et al., 1978).

**Social connection.** Participants reported how connected they felt to other people (e.g., "I don't feel connected to most people," five items,  $\alpha = .93$ ) using items from the Social Connectedness Scale (Lee & Robbins, 1995) from 1 (*strongly disagree*) to 7 (*strongly agree*). Responses were reverse-coded such that higher values indicated greater feelings of social connection with others.

### Covariates

We controlled for demographic, personality, and financial variables related to the hypothesized mediators and outcomes (Table 1).

**Materialism.** Participants completed items from the Material Values Scale (e.g., "I like a lot of luxury in my life," three items,  $\alpha = .81$ ; Richins, 2004) from 1 (*strongly disagree*) to 7 (*strongly agree*).

**Financial aspirations.** Participants reported the importance of financial aspirations (e.g., "I will be financially successful") on a scale from 1 (*not at all important*) to 7 (*extremely important*) (four items,  $\alpha = .79$ ; Kasser & Ryan, 1993).

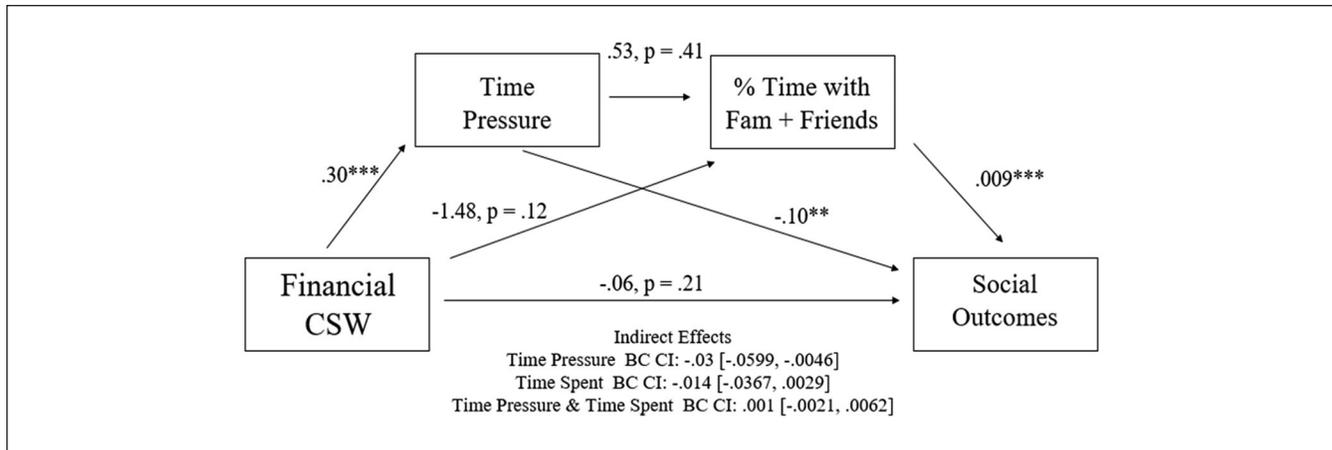
**Economic hardship.** Participants reported their perceived economic hardship over the past 6 months (e.g., "I have had difficulty paying monthly bills," three items,  $\alpha = .85$ ) from 1 (*strongly disagree*) to 7 (*strongly agree*) (Conger et al., 1999).

**Extraversion.** Participants responded to two items from the 10-Item Personality Inventory (Gosling et al., 2003) by rating the extent to which two pairs of adjectives applied to

**Table 1.** Zero-Order Correlations among Variables (Study 1).

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Financial CSW	—														
2. Time pressure	.28***	—													
3. Autonomy	-.29***	-.24***	—												
4. Time spent with family/friends	-.14*	.03	.17**	—											
5. Social outcomes	-.24***	-.22***	.48***	.21***	—										
6. Materialism	.44***	.07	-.21***	-.02	.15**	—									
7. Financial aspirations	.44***	.07	-.08	-.11*	.04	.64***	—								
8. Economic hardship	.15**	.22***	-.25***	-.11*	-.37***	.06	-.37***	—							
9. Resource orientation	.21***	.09	-.01	-.17***	.00	.23***	.20***	.07	—						
10. Extraversion	-.15**	-.10*	.22***	.11*	.38***	.08	.09	-.12***	-.06	—					
11. Age	-.19**	-.07	.17**	-.01	.16***	-.27***	-.29***	-.01	-.01	.03	—				
12. Gender	.03	.17**	.06	.12*	-.03	-.01	-.06	.19***	.02	.71	.05	—			
13. Children living at home	.02	.20***	.07	.27**	.07	.02	-.01	-.04	-.05	-.05	-.12*	.21***	—		
14. Hours worked per week	.11*	.04	.00	-.12*	.14*	.00	-.21***	-.19***	.08	.12*	.01	-.17**	-.13*	—	
15. Income	.13*	.08	.04	.08	.12*	.03	.18***	-.35***	.01	.01	-.02	.05	.15**	.19***	—
16. Marital status	-.07	-.09	-.05	-.24***	-.17**	-.01	-.09	.17**	.07	-.11*	.01	-.16**	-.40***	-.01	-.39***

Note. Resource orientation was coded as 1 = valuing time over money, 2 = valuing money over time; gender as 1 = male, 2 = female; marital status as 1 = married or in a marriage-like relationship, 2 = not married. CSW = contingency of self-worth.  
 \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .



**Figure 2.** Study 1. Perceived time pressure links Financial CSW to social outcomes, but time pressure and time spent with family/friends in sequence do not.

Note. Total indirect effect =  $-.04 [-.08, -.01]$ . Parameter estimates are unstandardized with a 95% bias-corrected bootstrap confidence interval. CSW = contingency of self-worth.

them—“extraverted, enthusiastic” and “reserved, quiet” (reversed)—applied to them from 1 (*disagree strongly*) to 7 (*agree strongly*) ( $r = .66, p < .001$ ).

**Resource orientation.** Participants read two scenarios describing individuals who prioritized either money or time and selected the individual they identified with most (36% prioritized money over time; Whillans et al., 2016).

**Demographics.** Participants reported their age, gender, ethnicity, marital status (66.4% were married/in a marriage-like relationship), number of children living at home (44.6% had at least one child living at home), income (median = US\$50,000–US\$74,999), and number of hours worked per week (58.7% worked 40+ hours per week).

## Results and Discussion

Participants who based their self-worth on financial success were expected to experience worse social outcomes (i.e., loneliness, social disconnection) due to perceiving greater time pressure and spending less time with family and friends (Figure 1). To test this sequential mediation hypothesis, we used Hayes’ (2018) PROCESS macro (Model 6) for SPSS. Prior to conducting this analysis, we created a composite measure of social outcomes by reverse-coding responses on the loneliness scale, standardizing responses on the loneliness and social connection scales, and averaging across items such that lower scores reflected worse social outcomes ( $\alpha = .93$ ).

Results showed partial support for the hypothesized model. Replicating Study B, higher Financial CSW was related to greater perceived time pressure, and time pressure was associated with worse social outcomes. These findings were significant controlling for all of the

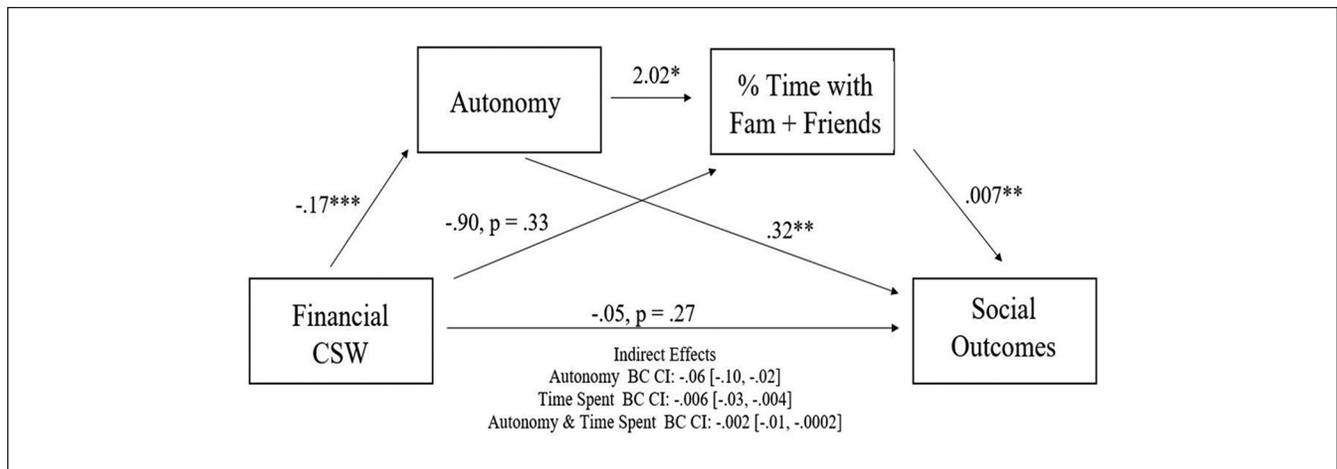
covariates described above.<sup>2</sup> Replicating Study A, time spent with family and friends was associated with better social outcomes. Contrary to hypotheses, however, perceptions of time pressure and time spent with family and friends were not related (Figure 2).

### Testing Alternative Models

In addition to testing the originally hypothesized model, we examined alternative models of (a) autonomy as a mediator between Financial CSW and social outcomes, and (b) autonomy and time spent with family and friends as sequential mediators between Financial CSW and social outcomes. To test these models, we used Hayes’ (2018) PROCESS macro to conduct mediation analyses (Model 4) and sequential mediation analyses (Model 6).

**Does autonomy mediate the link between Financial CSW and social outcomes?** Results of the mediation analysis showed that autonomy accounted for a significant indirect relationship between Financial CSW and social outcomes.<sup>3</sup> Specifically, higher Financial CSW was related to lower autonomy, and lower autonomy to worse social outcomes (Figure 3). These findings were significant even after controlling for covariates.

**Does autonomy and time spent with family and friends account for the link between Financial CSW and social outcomes?** Next, we examined whether autonomy and time spent with family and friends in sequence accounted for a significant indirect relationship between Financial CSW and social outcomes. Results supported the sequential mediation: higher Financial CSW was related to lower autonomy, and lower autonomy was associated with spending less time with family and friends; less time with close others was related to worse social



**Figure 3.** Study 1. Autonomy, and autonomy and time spent with family/friends in sequence, link Financial CSW to social outcomes. Note. Total indirect effect =  $-.07$  [ $-.11, -.02$ ]. Parameter estimates are unstandardized with a 95% bias-corrected bootstrap confidence interval. CSW = contingency of self-worth.

outcomes (Figure 3), even after accounting for covariates.<sup>4</sup> This pattern of results was unique to Financial CSW, and not found when replacing Financial CSW with materialism or financial aspirations (see “Supplemental Materials”).

*Which mediation model best fits the data?* Given that the data supported more than one mediation model, structural equation modeling (SEM) and comparison of fit statistics (Gunzler et al., 2013; Kline, 2015) were used to determine which model best explained the relationship between Financial CSW and social outcomes. SEM models were analyzed using MPlus 8 (Muthén & Muthén, 1998–2017) using full-information maximum likelihood estimation. We used the following interpretive guidelines to assess model fit: Comparative fit index (CFI) should be near .95 or above for excellent fit and .90 to .95 for good fit (Hu & Bentler, 1999), the root mean square error of approximation (RMSEA) should be at or below .06 (Hu & Bentler, 1999), and the standardized root mean square residual (SRMR) should be at or below 0.08 (Browne & Cudeck, 1992).

Results of the model with time pressure (i.e., the indirect effect of time pressure) showed good model fit ( $\chi^2(5) = 5.47; p = .36$ ; RMSEA = 0.02; CFI = 1.00; SRMR = 0.01), as did the model with autonomy (i.e., the indirect effect of autonomy) ( $\chi^2(5) = 5.90, p = .32$ ; RMSEA = 0.02; CFI = 1.00; SRMR = 0.01), and the sequential mediation model (i.e., the indirect effect of autonomy and time spent with family and friends in sequence) ( $\chi^2(3) = 18.39, p = .10$ ; RMSEA = 0.04; CFI = 0.98; SRMR = 0.02). Thus, based on comparison of fit statistics, all three models are consistent with the data (i.e., are plausible interpretations of the relationships between variables). However, consistent with our general hypothesis, we found that how much autonomy people felt was related to the amount of time they spent with friends and family.<sup>5</sup> As a result, autonomy became the primary focus of the subsequent studies.

## Study 2

Given that we unexpectedly found in Study 1 that perceptions of autonomy, rather than time pressure, best accounted for the relationship between basing self-worth on financial success, time spent with friends and family, and social outcomes, we sought to replicate these findings in a large sample of working adults.

### Participants and Procedures

As part of a larger study, 940 participants (26.7% male;  $M_{age} = 39.85, SD = 12.60$ ) were recruited using Qualtrics, an online platform which offers a crowd-sourcing service that allows researchers to request users to complete various types of research studies. To be eligible for the study, participants had to be employed and work at least 21 hr or more per week. The sample consisted of 75.8% Caucasians, 8.8% African Americans, 7.2% Hispanics, 5% Asians, and 3% other ethnicities.

### Materials

Participants completed the following items, which were embedded among other measures. Items in the current study were similar to the previous studies, but shortened due to space constraints (see “Methodology File”).

**Financial CSW.** Participants completed a brief version of the Financial CSW scale (three items,  $\alpha = .88$ ).

**Time pressure.** Participants reported their perceptions of time pressure (two items,  $r = .63, p < .001$ ).

**Time allocation.** Participants indicated the percentage of time they spent over the past week engaged in various

**Table 2.** Zero-Order Correlations among Variables (Study 2).

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Financial CSW	—										
2. Time pressure	.30***	—									
3. Autonomy	-.38***	-.34***	—								
4. Time spent with family/friends	.08**	-.12**	.14***	—							
5. Social outcomes	-.42***	-.39***	.48***	.20**	—						
6. Materialism	.57***	.17***	-.19***	.18***	-.25***	—					
7. Economic hardship	.15***	.16***	-.20***	-.20***	-.19***	.00	—				
8. Gender	-.03	-.06**	.01	-.01	.02	-.04	-.02	—			
9. Hours worked per week	-.09**	.00	.05	-.10**	.08*	-.12***	.01	-.06	—		
10. Income	.02	.01	.03	.04	.12**	.00	-.31***	-.09**	.14***	—	
11. Manager status	.12**	-.03	.01	-.22***	.08*	.22***	-.20***	-.01	-.02	.16***	—
12. Marital status	-.04	-.07*	-.02	-.10***	.05	.00	-.11**	.50***	-.03	-.34***	.03

Note. Gender was coded as 1 = male, 2 = female; manager status as 1 = not being considered a manager at their primary job, 1 = being considered a manager at their primary job; marital status as 1 = married or in a marriage-like relationship, 2 = not married. CSW = contingency of self-worth.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

activities: (a) spending time alone not working, (b) spending time working alone, (c) socializing with colleagues, (d) spending time with friends (outside of a work context), (e) spending time with family (outside of a work context), and (f) engaging in other activities. Because we were primarily interested in time spent socializing with others, we created a composite measure of the percentage of time spent with family and friends outside of a work context ( $M = 76.57$ ,  $SD = 47.99$ ).<sup>6</sup>

**Autonomy.** Participants reported how autonomous they felt (two items,  $r = .27$ ,  $p < .001$ ).

**Social outcomes.** Participants completed items from the Loneliness Scale (two items,  $r = .64$ ,  $p < .001$ ) and the Social Connectedness Scale (three items,  $\alpha = .91$ ).

### Covariates

We controlled for variables related to the hypothesized mediators and outcomes (Table 2).<sup>7</sup>

**Materialism.** Participants completed the same items from Study 1 (three items;  $\alpha = .81$ ).

**Economic hardship.** Participants responded to the item, “I have had enough money to meet my expenses” (reverse-scored) from 1 (*strongly disagree*) to 7 (*strongly agree*).

**Demographics.** Participants reported their age, gender, marital status (61% were married/in a marriage-like relationship), household income (median = US\$60,000–US\$69,999), number of hours worked per week (59.5% worked 40+ hours per week), and whether or not their job included managerial responsibilities (53.7% reported managerial responsibilities, which were defined as having at least two people in the workplace who reported to them).

## Results and Discussion

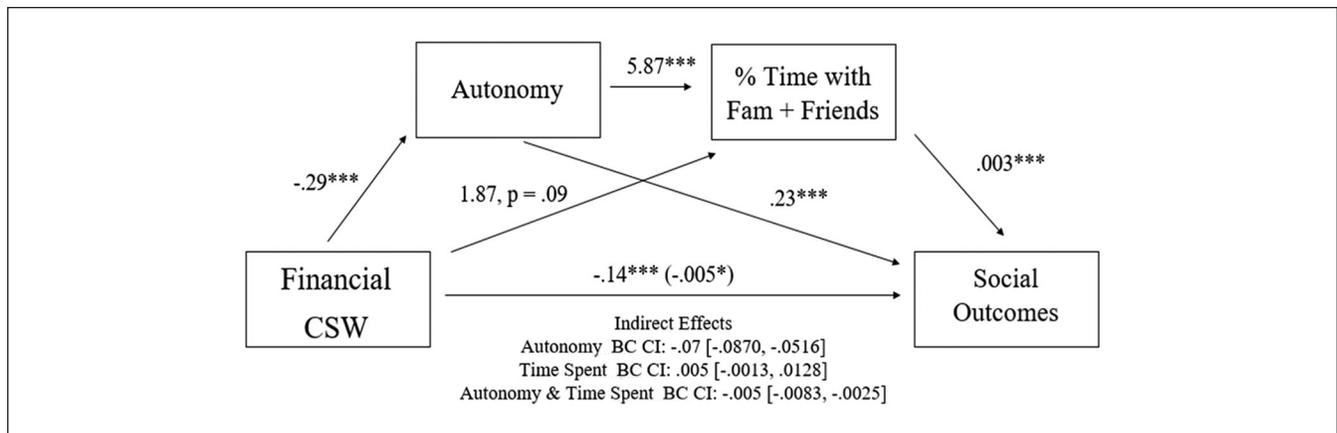
Participants who based their self-worth on financial success were expected to experience worse social outcomes (i.e., more loneliness, social disconnection) via (a) feeling lower autonomy or (b) feeling lower autonomy and spending less time with family and friends. To test these models, we used Hayes’ (2018) PROCESS macro (Models 4 and 6) for SPSS to conduct mediation and sequential mediation analyses. Once again, we created a composite social outcomes variable by reverse-scoring responses on the loneliness scale, standardizing responses to the loneliness and social connectedness items, then averaging the items so that lower scores indicated worse social outcomes ( $\alpha = .88$ ).

Results showed support for the hypothesized models (Figure 4). Basing self-worth on financial success was associated with lower autonomy, which was related to spending less time with family and friends; less time with close others was associated with worse social outcomes. Higher Financial CSW was directly related to worse social outcomes, and the indirect effects of both (a) autonomy and (b) autonomy and time spent with friends and family in sequence were significant. Findings emerged controlling for demographic and financial variables.<sup>8</sup> Furthermore, results were unique to Financial CSW and not found when replacing Financial CSW with materialism (see “Supplemental Materials”).

### Which Mediation Model Best Fits the Data?

Given that the data supported both mediation models, SEM was used to determine which model best explained the relationship between Financial CSW and social outcomes using comparison of fit statistics.<sup>9</sup> The same strategy and interpretive guidelines as in Study 1 were used to assess model fit (Browne & Cudeck, 1992; Hu & Bentler, 1999).

The model examining the indirect effect of autonomy alone ( $\chi^2(6) = 56.43$ ,  $p < .001$ ; RMSEA = 0.09; CFI = 0.92;



**Figure 4.** Study 2. Autonomy, and autonomy and time spent with family/friends in sequence, partially mediate the relationship between Financial CSW and social outcomes.

Note. Total indirect effect =  $-.05$  [ $-.01, -.00$ ]. Parameter estimates are unstandardized with a 95% bias-corrected bootstrap confidence interval. CSW = contingency of self-worth.

SRMR = 0.04) showed acceptable model fit, as did the model examining the indirect effect of autonomy and time spent with close others in sequence ( $\chi^2(8) = 60.83$ ,  $p < .001$ ; RMSEA = 0.08; CFI = 0.93; SRMR = 0.03), although the RMSEAs for both models were slightly high. Overall, these results are consistent with Study 1, suggesting that either autonomy alone, or autonomy and time spent with close others in sequence account for the negative relationship between basing self-worth on financial success and social outcomes.<sup>10</sup>

### Study 3

In the final study, we examined the ecological validity of these findings using a daily diary design, enabling us to examine within-person models (i.e., intra-personal variability across occasions, holding constant individual differences) and between-person models (i.e., overall tendencies, holding constant variability across occasions and including covariates described below). Within-person models reveal how variables affect one another on a given day, whereas between-person models show the impact of person-level individual differences. Thus, between-person models are comparable to the results of Studies 1 and 2, with the exception that they are derived from a series of daily assessments. Given this comparability, we expected the between-person analyses to replicate the previous studies' findings.

We also considered how these variables should relate to one another at the within-person level, or as they fluctuate in a person day-by-day. Given that introjected self-regulation produces feelings of pressure, days when a person more strongly bases their self-worth on financial success—an instance of introjected self-regulation—should also be characterized by lower autonomy—an instance of feeling pressure. Similarly, how much autonomy a person feels they have on a given day should be related to how they allocate

their time *that day*, and the extent to which one spends time with close others on a given day should be related to their feelings of social connection that day. Therefore, we reasoned the within-person analyses would similarly replicate the associations found in Studies 1 and 2.

In sum, for both between- and within-person models, we hypothesized that basing self-worth on financial success (i.e., having higher Financial CSW) would be associated with lower autonomy, which would be related to spending less time with family and friends. Spending less time with family and friends was expected to be associated with worse social outcomes (i.e., greater feelings of loneliness, social disconnection). Consistent with the findings of Studies 1 and 2, we also expected lower autonomy to be directly associated with worse social outcomes. The hypotheses, materials, and analysis plan were preregistered on the Open Science Framework ([https://osf.io/uz3sn?view\\_only=fb59312e859f43d7aad6e3d724aca989](https://osf.io/uz3sn?view_only=fb59312e859f43d7aad6e3d724aca989)).

### Participants and Procedure

We recruited 283 participants from a pool of Introductory Psychology students at a large public university in exchange for course credit. Sample size was based on available resources; researchers were restricted to collecting up to 25 participants per week during the course of a 15-week semester. Participants completed initial measures in-lab and then a daily survey for 14 consecutive days. Thirty-seven participants were excluded from analyses because they completed less than 33% of the daily surveys. The final sample consisted of 246 participants (41.1% male;  $M_{age} = 18.9$  years,  $SD = 1.52$ ) that was approximately 55% Caucasian, 28% Asian, 9% Black, 3% Hispanic, and 4% who listed “other” or did not report their ethnicity.

During the in-lab portion of the study, participants completed measures of materialism, financial aspirations, perceived

**Table 3.** Zero-Order Correlations among Variables (Study 3).

Variable	Correlations												
	1	2	3	4	5	6	7	8	9	10	11	12	
1. Age	—												
2. Gender	-.12	—											
3. Hours worked per week	.14	.04	—										
4. Income	-.11	-.02	-.04	—									
5. Extraversion	-.04	.08	-.01	-.16*	—								
6. Materialism	.11	-.12	.04	-.03	.13	—							
7. Financial aspirations	.12	-.08	.07	-.11	.03	.64***	—						
8. Economic hardship	.13*	.04	-.04	-.40***	-.14*	.14*	.10	—					
9. Financial CSW	.24*	-.05	.12	-.13	.05	.51***	.45***	.26***	(.75)	-.09**	.02	-.10**	
10. Autonomy	-.01	.12	-.02	.10	.17*	-.18**	-.18**	-.30***	-.40***	(.48)	.10**	.35***	
11. Time spent with family/friends	-.22*	.13	-.12	.10	.21**	-.18*	-.21*	-.12	.21**	.34***	(.24)	.30***	
12. Social outcomes	-.11	.04	-.11	.21**	.21**	-.16*	-.18*	-.38***	-.42***	-.68***	-.37***	(.57)	

Note. Within-person correlations are shown above the diagonal and between-person correlations are shown below the diagonal. Intraclass correlations for daily diary variables are shown in parentheses on the diagonal. Gender was coded as 1 = male, 2 = female. CSW = contingency of self-worth.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

economic hardship, extraversion, and demographics we included as covariates. Participants were then given instructions about how to fill out the daily diary survey. They were told that beginning the following evening, they would receive an email link to a survey to complete every night for 14 days. They were instructed to complete the daily surveys “as soon as possible, but at least some time before you go to bed for the night” and were told that any surveys completed the following morning would not count toward their course credit. Participants were asked the same questions every night about their daily Financial CSW, autonomy, amount of time spent with family and friends that day, and feelings of loneliness and social connection that day, which were embedded among exploratory items.

### In-Lab Survey Items (Covariates)

**Materialism.** Participants completed the same items as in Study 1 ( $\alpha = .76$ ).

**Financial aspirations.** Same as in Study 1 ( $\alpha = .76$ ).

**Economic hardship.** Same as in Study 1 ( $\alpha = .80$ ).

**Extraversion.** Same as in Study 1 ( $r = .52$ ).

**Demographics.** Participants reported their age, gender, ethnicity, income, and number of hours worked per week (61% worked less than 10 hr per week).

### Daily Diary Survey Items

**Financial CSW.** Participants completed three items from the Financial CSW Scale adapted to assess state Financial CSW

(e.g., “Today, I felt like my self-esteem depended on having a lot of money”; mean  $\alpha = .95$ , range = .92–.97).

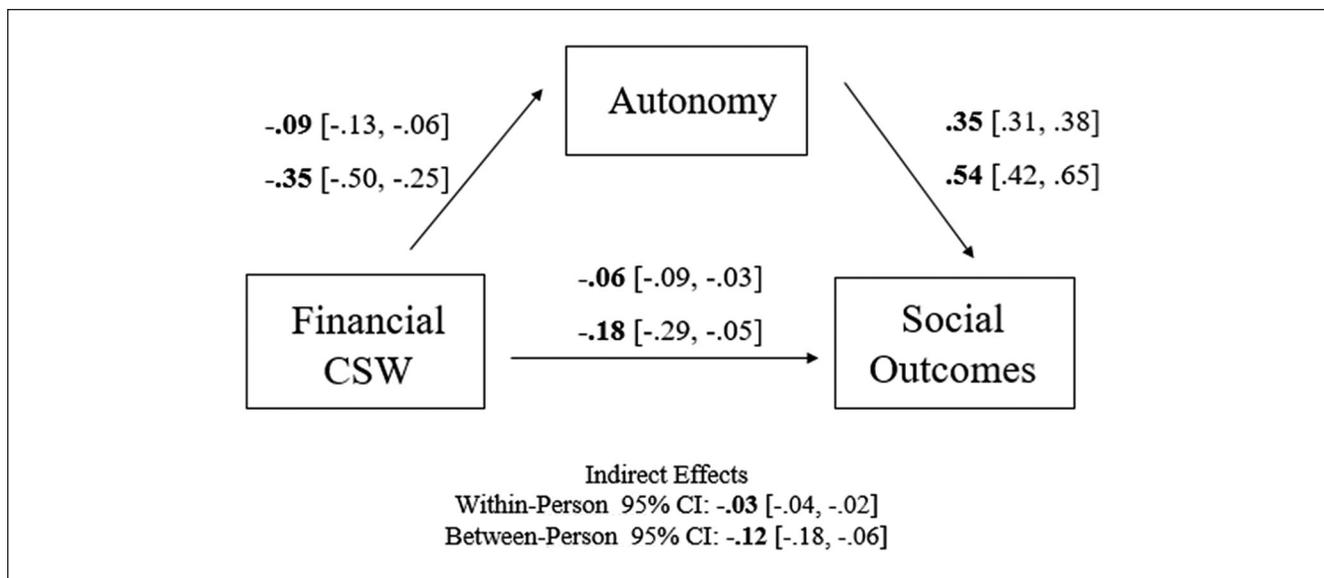
**Autonomy.** Participants completed three items to assess state autonomy (e.g., “Today, I felt autonomous (i.e., like I had a sense of choice and control over my life”) on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*) (mean  $\alpha = .65$ , range = .60–.75).

**Time allocation.** Similar to Study 1, participants indicated the percentage of time they spent that day socializing with friends or family in-person (outside of a work context) ( $M_{range} = 18.28$ – $36.67$ ,  $SD_{range} = 14.06$ – $28.86$ ).

**Social outcomes.** Participants completed seven items to assess state social connection (e.g., “Today, I felt lonely,” “Today, I felt isolated from others”) on a scale from 1 (*not at all*) to 6 (*very much*). Responses were reverse-scored and averaged to create a composite measure such that lower numbers indicated worse social outcomes (mean  $\alpha = .93$ , range = .92–.94).

## Results and Discussion

Participants completed a total of 3,171 daily reports out of a possible 3,444 reports (91% average completion rate). Table 3 reports descriptive statistics for all study variables including between-person means and standard deviations, between- and within-person correlations, and intraclass correlations of daily diary variables. Intraclass correlations revealed that there was substantial variability at both levels for daily variables, though Financial CSW was relatively stable across days. The variance due to differences between people was between 24% and 75%, whereas the remainder of the variance was due to within-person variability across days.



**Figure 5.** Study 3. Autonomy as a mediator of the association between Financial CSW and social outcomes.

Note. Estimates in the main figure are standardized parameter estimates with 95% credibility intervals. Standardized estimates are not available for indirect effects, for which unstandardized estimates are shown. Within-person estimates are the upper numbers, between-person estimates are the lower numbers. Bolded estimates are significant at  $p < .05$ . CSW = contingency of self-worth.

### Data Analytic Strategy

Given that daily reports of the variables were nested within persons, we used multilevel modeling to handle the non-independence of observations (Kenny, Mannetti, Pierro, Livy, & Kashy, 2002). Specifically, we used multilevel modeling within the SEM framework to examine three mediation models (Muthén & Muthén, 1998–2017). MPlus conducts multilevel analyses by creating two uncorrelated latent variables that represent between-person and within-person variance for each daily variable. As such, the within-person estimates are group mean-centered and analyses for each level controls for variability in the other.

Bayesian estimation was used to generate parameter estimates for mediation models to obtain an accurate asymmetric credibility interval for the indirect effects. Robust maximum likelihood estimation was used for the mediation models to obtain standard fit indices for those models (parameter estimates were not interpreted from these models). We used the same guidelines as in Study 1 to assess model fit by examining the CFI, RMSEA, and SRMR.

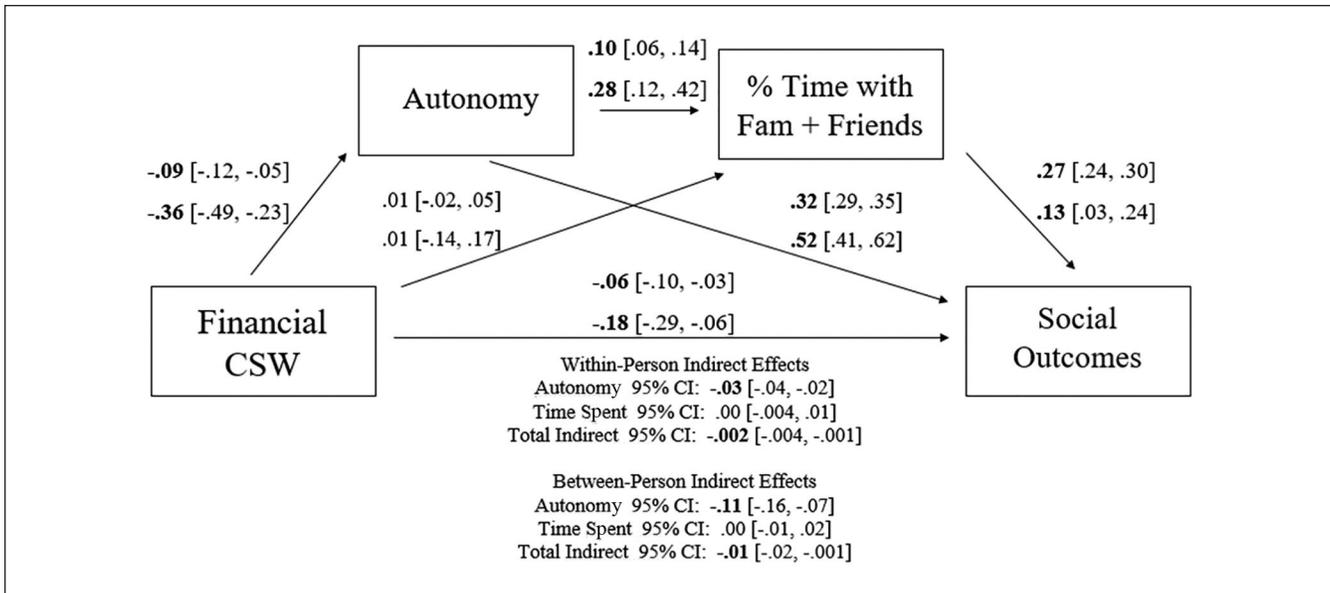
All within-person models included the day of study participation as a covariate to account for any linear trends over time. The following Level 2 covariates were considered for between-person models: age, gender, income, number of hours worked, extraversion, materialism, financial aspirations, and economic hardship. To increase model parsimony, each covariate was only included as a predictor of an outcome with which it was significantly correlated (Table 3) and all exogenous variables, including covariates, were allowed to correlate with one another in the between-person model.

### Mediation Models

We first tested a mediation model, controlling for relevant covariates, in which Financial CSW was related to social outcomes via its association with autonomy. This sole mediator model was estimated at both the within-person and between-person levels with Bayesian parameter estimates and 95% credibility intervals (Figure 5). Based on maximum likelihood estimation, model fit was good:  $\chi^2(2) = 39.31$ ,  $p < .001$ , CFI = 0.953, RMSEA = 0.074, SRMR within = 0.046, SRMR between = 0.008.

At both levels, results were consistent with hypotheses, as all paths were significant and in the expected direction. On days when participants reported basing their self-worth more on financial success they also reported lower autonomy, and lower autonomy was related to worse social outcomes (i.e., greater felt loneliness and social isolation) that day. Similarly, participants who based their self-worth on financial success throughout the course of the study also reported generally lower autonomy, which was associated with generally worse social outcomes. The indirect effect of daily Financial CSW on social outcomes was significant at both levels, as was the direct effect.

Next, a serial mediation model was tested in which autonomy and time spent with friends and family were examined as sequential mediators. We hypothesized that higher Financial CSW would predict lower autonomy, which would predict less time spent with friends and family, and worse social outcomes. This sequential mediation model was estimated at both the within-person and between-person levels, with Bayesian parameter estimates and 95% credibility



**Figure 6.** Study 3. Autonomy and time spent with friends/family as sequential mediators of the association between Financial CSW and social outcomes.

Note. Estimates in the main figure are standardized parameter estimates with 95% credibility intervals. Standardized estimates are not available for indirect effects, for which unstandardized estimates are shown. Within-person estimates are the upper numbers, between-person estimates are the lower numbers. Bolded estimates are significant at  $p < .05$ . CSW = contingency of self-worth.

intervals (Figure 6). The model showed good fit to the data, based on fit indices from robust maximum likelihood estimators:  $\chi^2(6) = 47.99$ ,  $p < .001$ , CFI = 0.960, RMSEA = 0.045, SRMR within = 0.037, SRMR between = 0.016.

At both levels, the key paths were significant and in the expected direction. On days when participants reported basing their self-worth more on financial success they also reported lower autonomy, and lower autonomy was associated with spending less time with friends and family that day; less time spent with close others on a given day was related to worse social outcomes (i.e., greater felt loneliness and social isolation) that day. Similarly, participants who based their self-worth on financial success throughout the study reported generally lower autonomy, which was associated with spending less time with friends and family; spending less time with close others on average was related to generally worse social outcomes. The total indirect effect of Financial CSW on social outcomes was significant at both levels, as was the direct effect.

## Discussion

The use of a daily-diary design allowed us to test for individual differences in Financial CSW, autonomy, time spent with family and friends, and social outcomes as assessed in daily life (between-subjects) and how these processes impacted one another intrapersonally on an occasion-by-occasion basis (within-subjects). For both between- and within-person analyses, we hypothesized that basing self-worth on financial success (i.e., having higher Financial

CSW) would be associated with lower autonomy, which would be related to spending less time with family and friends. Spending less time with family and friends was expected to be linked with worse social outcomes (i.e., greater feelings of loneliness, social disconnection). Consistent with Studies 1 and 2, we also expected lower autonomy to be related to worse social outcomes.

Overall, results of both the within- and between-person analyses supported our hypotheses. On days when participants reported higher levels of Financial CSW, they experienced lower autonomy, which was associated with spending less time with family and friends. The less time participants spent with family and friends, the more alone and socially disconnected they felt. Lower autonomy also directly predicted worse social outcomes.

We also conducted a set of exploratory lagged analyses examining (a) today's Financial CSW predicts today's autonomy, which predicts today's time spent with family/friends, which predicts tomorrow's social outcomes; (b) today's Financial CSW predicts today's autonomy, which predicts tomorrow's time spent with family/friends, which then predicts tomorrow's social outcomes. Findings suggested that the effects of autonomy were predictive of same-day social outcomes, but were relatively fleeting and did not persist to the next day (see "Supplemental Materials"). Thus, the effects of autonomy on social outcomes directly, and the effect of autonomy on social outcomes via time spent with close others, appear to be driven by participants' average and day-to-day tendencies to base their self-worth on financial success.

## General Discussion

The quality of people's social relationships plays an important role in well-being (Baumeister & Leary, 1995; Uchino et al., 1996). Individuals who focus on financial pursuits show less desire to socialize with others and spend less time interacting with others when given the opportunity to do so (Vohs et al., 2006, 2008; Whillans & Dunn, 2019). This may be one reason why valuing financial pursuits is associated with negative outcomes, such as lower self-esteem and life satisfaction (Dittmar et al., 2014; Nickerson et al., 2003; Whillans & Dunn, 2019). Research to date, however, has not examined *why* valuing money is related to negative social outcomes.

To address this question, the present research examined psychological processes linking financial success as a basis of self-worth to negative social outcomes. Our preliminary studies indicated that individuals who based their self-worth on financial success felt lonelier and more disconnected from others, partially due to perceiving greater time pressure and spending less time with family and friends. When individuals perceive time pressure, they may be less likely to allocate their time toward activities that are not essential to maintaining their self-esteem. Thus, individuals with Financial CSW were expected to experience worse social outcomes via perceiving greater time pressure and spending less time with their family and friends.

The findings of Study 1 provided partial support for this hypothesis. Basing self-worth on financial success was associated with greater perceptions of time pressure, and greater time pressure was related to feeling lonelier and more socially disconnected. Although time pressure was unrelated to time spent with family and friends, less time spent with close others was related to worse social outcomes. Thus, components of the proposed model were supported, but not the full model involving sequential mediation.

Rather, the results of Study 1 supported two preregistered alternative models. Instead of greater time pressure, basing self-worth on financial success was negatively associated with *autonomy*. Autonomy was related to spending less time with family and friends; less time with close others was associated with greater loneliness and social disconnection. Similarly, autonomy alone partially accounted for the relationship between Financial CSW and social outcomes: basing self-worth on financial success was associated with lower autonomy, which was related to worse social outcomes. Thus, basing self-worth on financial success was indirectly related to feelings of loneliness and social disconnection via (a) lower autonomy, and (b) lower autonomy and spending less time with family and friends in sequence. Moreover, constructs similar to Financial CSW, such as materialism and financial aspirations, were not related to loneliness and social disconnection via lower autonomy or less time spent with close others. These findings were replicated in Study 2 using a large sample of working adults in the United States.

In Study 3, we used daily diary methods to investigate the consequences of basing self-worth on financial success in everyday life. Consistent with prior studies, within-person analyses showed that on days when participants felt like their self-worth was dependent on financial success, they experienced lower autonomy. Lower autonomy on a given day was related to spending less time with their family and friends that day, which was then associated with worse social outcomes (i.e., greater loneliness and social disconnection). Lower autonomy was also directly related to worse social outcomes. Similarly, between-person analyses were consistent with the hypothesis that basing self-worth on financial success is associated with worse social outcomes via (a) autonomy and (b) autonomy and less time spent with close others in sequence.

The current research originally examined time pressure as a specific instantiation of low autonomy; we thought that participants would be better able to report feelings of time pressure than a general lack of autonomy, and that time pressure might therefore serve as a proximal predictor of how individuals chose to allocate their time. Time pressure was therefore conceptualized as a concrete manifestation of low autonomy, given that time pressure and low autonomy are both characterized by a lack of perceived choice and control over one's actions (Garling et al., 2014). Indeed, perceptions of time pressure and autonomy were found to be negatively correlated with each other (Mean  $r = -.28$ ,  $p < .001$ , Studies 1–3).

The key difference between the measures of time pressure and autonomy in the current studies is that autonomy reflected the degree to which participants felt they could generally decide for themselves how to act, whereas the measure of time pressure focused specifically on lacking the resource of time (e.g., feeling like there have not been enough minutes in the day) and may therefore have reflected a sense of "busyness," rather than a lack of autonomy per se. Thus, although we had expected perceptions of time pressure to account for the relationship between Financial CSW and spending less time with close others, results of the present studies showed that perceptions of autonomy more broadly played a key role in predicting feelings of loneliness and social disconnection.

### *How Do People with Financial CSW Allocate Their Time?*

Basing self-worth on financial success was indirectly associated with spending less time with family and friends. A question that remains, however, is what people with Financial CSW are instead doing with their time. To address this question, we conducted a series of exploratory regression analyses using data from Studies 1 and 2. Controlling for all relevant covariates mentioned in each study, participants who more strongly based their self-worth on financial

success reported spending more time working alone in a typical week (Study 1:  $b = 4.21, p < .001, 95\% \text{ CI } [2.07, 6.36]$ ; Study 2:  $b = 2.45, p < .001, 95\% \text{ CI } [1.22, 3.68]$ ) compared with participants who based their self-worth less strongly on financial success.

In the initial in-lab portion of the daily diary study (Study 3), we also asked participants about their important life goals and perceptions of how to achieve those goals (see “Methodology File,” pp. 11–12). Controlling for the covariates assessed in Study 3, participants with higher Financial CSW identified their “most important goals” as related to achieving financial success ( $b = .41, p < .001, 95\% \text{ CI } [.25, .57]$ ), and believed that the more time they spent working, the more likely they would be to achieve financial success ( $b = .25, p = .001, 95\% \text{ CI } [.11, .40]$ ). People with higher Financial CSW spent more time worrying ( $b = .53, p < .001, 95\% \text{ CI } [.29, .78]$ ) and being stressed about their finances ( $b = .72, p < .001, 95\% \text{ CI } [.49, .96]$ ), but Financial CSW was unrelated to spending time on hobbies outside of work or self-care ( $ps > .57$ ).

Together, these findings suggest that people who strongly base their self-worth on financial success are preoccupied with money; indeed, even after taking into account variables such as income and economic pressures, they tend to spend more time feeling stressed and worried about their finances. Furthermore, they believe that spending more time working will lead to financial success and do, in fact, spend more time working compared to people with lower Financial CSW (see “Supplemental Materials” for results).

Overall, these findings are consistent with the idea that goal-related pressures motivate people to focus on activities that are viewed as instrumental to reaching their goal. For individuals with Financial CSW, this may be associated with more time spent working and less time interacting with close others. Indeed, we generally find a negative association between time spent working and time spent with close others ( $-.35 < r_s < -.43, ps < .001$ ; see “Supplemental Materials” for further details).

### Financial CSW Versus Other Constructs

Conceptually, Financial CSW differs from other financially related constructs, such as materialism and financial aspirations. Materialism reflects “endorsement of values, goals, and associated beliefs that center on importance of acquiring money and possessions that convey status” (Dittmar et al., 2014, p. 880); financial aspirations refer to the degree to which people value financial success as an important life goal (Kasser & Ryan, 1993). Whereas the constructs of materialism and financial aspirations emphasize having money and material possessions as the end-goal, Financial CSW reflects a striving to maintain and enhance a sense of personal worth and value from achieving financial success. Thus, while individuals may endorse materialistic values or financial goals for various reasons (Srivastava et al., 2001),

those who have Financial CSW are primarily motivated to pursue financial success to boost their self-esteem.

Although Financial CSW, materialism, and financial aspirations all reflect a desire for financial success and could presumably lead to similar outcomes, research shows that Financial CSW predicts outcomes independent of these other constructs (Park et al., 2017). Furthermore, results of the present studies revealed that materialism and financial aspirations functioned differently compared with Financial CSW (see “Supplemental Materials”). Whereas Financial CSW was consistently tied to feelings of pressure (i.e., time pressure, low autonomy), the findings for materialism and financial aspirations were mixed. Financial aspirations were unrelated to perceived time pressure ( $b = .00, p = .99$ , Study B) and autonomy ( $b = .60, p = .14$ , Study 1). Materialism was sometimes related to autonomy ( $b = -.12, p = .009$ , Study 1) and other times, was unrelated to perceived time pressure ( $b = -.04, p = .52$ , Study B) or to autonomy ( $b = .02, p = .64$ , Study 2). And while Financial CSW was related to lower feelings of social connection in Study B ( $b = .21, p < .01$ ), financial aspirations in that study were related to *greater* social connection ( $b = .24, p = .01$ ) and materialism was unrelated to social connection ( $b = -.06, p = .44$ ). In fact, other studies found that materialism was indirectly related to *better* social outcomes via a positive association with time spent with family and friends (Study 1:  $b = 1.73, p = .026, .012$  [BC CI: .0002, .0284]; Study 2:  $b = 3.99, p < .001, .012$  [BC CI: .0045, .0201]). In sum, whereas the findings for financial aspirations and materialism were mixed, Financial CSW was consistently related to greater perceived pressure and more loneliness and social disconnection across studies.

### Limits on Generality and Future Directions

The current research provides converging evidence that basing one’s self-worth on financial success is associated with greater feelings of loneliness and social disconnection, and that low autonomy and less time spent with close others may play a role in this association. However, as the current studies were correlational in nature, we cannot make causal claims regarding these relationships. We theorize that people with Financial CSW feel a sense of pressure or obligation to achieve financial success, which is related to lower autonomy, or feeling that one lacks choice over how to spend one’s time. Although it is possible that people with Financial CSW may *want* to spend time with close others, they may prioritize actions that they think will lead to financial success. It is also possible that some people who base their self-worth on money view spending time with close others as “distracting” from their primary goal of financial success. Thus, they may not be particularly distressed about spending less time with family and friends or even recognize that such actions may contribute to feelings of social isolation and disconnection.

Finally, it is important to consider that participants in the present studies were all adults living in the United States, so the links found between Financial CSW and social outcomes may not generalize to individuals living in other cultures. In short, the present studies represent a first step toward better understanding how and why basing self-worth on finances is related to worse social outcomes, and to identify possible theoretical mechanisms for this relationship.

Given that the current studies suggest that both autonomy and time spent with close others play a role in the link between Financial CSW and social outcomes, a future direction would be to examine the relationship between these constructs in greater depth. While work and family are two central life domains, some individuals may perceive conflict between the two, leading to lower physical and psychological well-being (Greenhaus & Beutell, 1985). Underlying this idea is an assumed trade-off between time spent with close others and time spent working—that *more* time spent working translates to *less* time spent with close others and vice-versa (Netemeyer et al., 1996). Along these lines, research suggests that perceptions of goal conflict are related to greater perceived time scarcity (Etkin et al., 2015).

Building upon these ideas, research could examine the role that perceived work-family conflict plays in loneliness and social disconnection. Individuals who base their self-worth on financial success may perceive more work-family conflict, which may decrease involvement in activities with their family, increasing feelings of loneliness and social disconnection. Research could also investigate ways to boost autonomy or reduce perceptions of work-family conflict for those who base their self-worth on financial success, thus buffering them from feelings of loneliness and social disconnection. For example, viewing opportunities for socializing as a way to facilitate, rather than interfere with financial success, might make people with Financial CSW more likely to spend time with others.

Another avenue for future research is to examine how Financial CSW relates to subjective and psychological well-being more generally. Although higher Financial CSW was associated with worse social outcomes in the present research, spending more time engaged in goal pursuit—that is, working to achieve financial success—may also be associated, at times, with benefits. For example, spending more time at work may increase perceptions of self-efficacy or productivity, thereby boosting feelings of pride or satisfying competency needs. Working longer hours could also enhance workplace recognition, status, or salary. Thus, it remains an open question as to whether Financial CSW is always associated with negative outcomes, or whether there are times when pursuing financial success may be related to (perceived or actual) tangible or emotional benefits. Future work may also consider whether other domains of contingency, or even prioritizing certain types of goals and rewards (e.g., extrinsic vs intrinsic; self- vs other-focused), are similarly related to autonomy, time allocation, and social outcomes.<sup>11</sup>

## Conclusion

*. . . my eyes fell on Gatsby, standing alone on the marble steps and looking from one group to another . . .* (Fitzgerald, 1925)

In *The Great Gatsby*, Jay Gatsby goes to great lengths to demonstrate his worth and value by hosting extravagant parties to showcase his wealth. However, as alluded to in the quote above, Gatsby is described at one of these parties as standing by himself, away from his guests. In his quest to prove how financially well off he was, Gatsby in the end stood alone and emotionally separate from others.

The themes of loneliness and isolation that prevail in this classic novel are evident in real-life, as well. Across a series of studies, people who based their self-worth on financial success experienced more loneliness and less social connection. The more people staked their self-worth on financial success, the more pressured (i.e., less autonomous) they felt, which was associated with spending less time with close others and feeling more alone and less socially connected. Thus, rather than pursuing financial success as a way to boost self-esteem, Gatsby may have benefited from spending more time with the people in his life that he cared about the most.

## Authors' Note

Portions of this research were presented at the annual meeting of the Society for Personality and Social Psychology in Portland, Oregon (February, 2019). In addition, Han Young Jung is now affiliated with the Carlson School of Management – University of Minnesota.

## Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

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## Supplemental Material

Supplemental material is available online with this article.

## Notes

1. Participants were not required to complete every measure in the study, so the number of participants varied across analyses.
2. When covariates were removed from the model, the indirect effect of time pressure remained significant ( $-.05$  [BC CI:  $-.0841, -.0189$ ]).
3. Results of multiple regression analyses showed that Financial CSW did not significantly interact with autonomy to predict social outcomes ( $b = -.02, p = .67$ ).
4. When covariates were removed from the model, the indirect effect of autonomy remained significant ( $-.12$  [BC CI:  $-.1640,$

- .0644]), as did the indirect effect of autonomy and time spent with family and friends in sequence (-.005 [BC CI: -.0129, -.0006]).
5. Additional analyses found no evidence of reverse-direction mediation within the sequential model. Specifically, time spent with friends and family did not predict autonomy ( $p = .20$ ), and the indirect effect of autonomy and time spent with family and friends in sequence was not significant (-.002 [BC CI: -.0072, .0011]).
  6. On a scale from 0% to 100%, participants reported how much time they spent in each activity *separately* (unlike in Study 2, where the percentage of time participants designated for each activity had to total 100%). Thus, the range for the composite measure of percentage of time spent with (a) family and (b) friends outside of a work context was 0% to 200%.
  7. Covariates differed across studies due to time and space constraints.
  8. When covariates were removed from the model, the indirect effect of autonomy remained significant (-.07 [BC CI: -.0865, -.0557]) as did the indirect effect of autonomy and time spent with friends and family in sequence (-.007 [BC CI: -.0107, -.0038]).
  9. As in Study 2, perceived time pressure also mediated the relationship between Financial CSW and social outcomes. However, investigation of the model fit indices suggested poor fit, so we did not interpret these findings further ( $\chi^2(5) = 119.92, p < .001$ ; RMSEA = 0.16; CFI = 0.81; SRMR = 0.05; AIC = 5,606.02).
  10. Although additional analyses could not rule out reverse-direction mediation within the sequential model (i.e., the indirect effect remained significant (-.005 [BC CI: -.0099, -.0003])), time spent with friends and family predicted autonomy to a weaker extent ( $b = .001, p = .04, 95\% \text{ CI } [.0001, .0035]$ ) than autonomy predicted friends and family ( $b = 5.87, p < .001, 95\% \text{ CI } [3.5802, 8.1755]$ ).
  11. In Studies 1 and 3, we assessed the degree to which participants based their self-worth on academic success (Academic CSW). When replacing Financial CSW with Academic CSW in the focal sequential mediation model, Academic CSW was unrelated to autonomy, time allocation, or social outcomes in either study ( $ps > .17$ ).

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