

# I'm Still Spending: Financial Contingency of Self-Worth Predicts Financial Motivational Conflict and Compulsive Buying

Personality and Social  
Psychology Bulletin  
1–21

© 2022 by the Society for Personality  
and Social Psychology, Inc  
Article reuse guidelines:  
sagepub.com/journals-permissions  
DOI: 10.1177/01461672221119356  
journals.sagepub.com/home/pspb



Lora Park<sup>1</sup>, Deborah E. Ward<sup>1,2</sup>, Kristin Naragon-Gainey<sup>3</sup>,  
Kentaro Fujita<sup>4</sup>, and Nicole Koefler<sup>1</sup>

## Abstract

People with financially contingent self-worth (FCSW) base their self-esteem on money and feel pressured to achieve financial success. However, the present research suggests such individuals may be vulnerable to compulsive buying and experiencing distress and impairment in their lives from engaging in this maladaptive behavior (Study 1a–1b). Study 2 identified a key mechanism: People with FCSW experience more motivational conflict between wanting to spend (vs. not spend) their money, which predicts greater compulsive buying intentions and anticipated distress from making excessive purchases. A 5-week diary study revealed that FCSW—on average and at a weekly level—predicted greater perceived financial motivational conflict and more compulsive buying, distress, and impairment in life (Study 3). People with FCSW experience more financial motivational conflict, independent of beliefs about spending implying wealth or feeling pressured to spend to display one's wealth to others (Study 4). Implications and future directions are discussed.

## Keywords

contingent self-worth, compulsive buying, motivational conflict, distress

Received February 9, 2022; revision accepted July 26, 2022

British rock star Sir Elton John, one of the most celebrated musicians of all time, declared bankruptcy in 2002 after spending nearly US\$50 million over 2 years to support his lavish, opulent lifestyle (Rose, 2019). Elton John's excessive spending aligns with characteristics of compulsive buying, which is characterized by chronic, repetitive purchasing despite negative repercussions (Dittmar, 2004; Edwards, 1993; Faber & O'Guinn, 1992). Celebrities are not the only ones to engage in compulsive buying; a recent meta-analysis of more than 30,000 participants across 16 countries found a prevalence rate of about 5% in the general population and 8% among university student samples (Maraz et al., 2016). Anecdotal examples abound as well, revealing the real-life consequences of compulsive buying. For instance, a woman living in a middle-class neighborhood in Southern California says she compulsively shopped, leading her to rack up thousands of dollars in debt and straining her marriage in the process (Orso & Ferran, 2009).

If compulsive buying leads to distress and impairment, why do people engage in this maladaptive, self-defeating behavior? One reason may be that some people have Financially Contingent Self-Worth (FCSW)—the tendency to base self-esteem on being financially successful (Park

et al., 2017). For people with FCSW, one way to validate feelings of financial success may be to be able to spend money on whatever they want. However, the more people spend, the less money they will have in their savings. Therein lies a potential paradox: People with FCSW might be motivated to spend their money in the present, because doing so may serve as a subjective indicator that they are financially successful and therefore satisfies their contingency of self-worth in this domain. However, people with FCSW may feel torn and conflicted about spending money because it detracts from the longer term goal of saving and accumulating money over time. Thus, the pursuit of self-esteem in the financial domain is costly because people with FCSW may experience recurrent internal conflict between wanting to spend and not

<sup>1</sup>University at Buffalo, The State University of New York, USA

<sup>2</sup>Saginaw Valley State University, University Center, MI, USA

<sup>3</sup>The University of Western Australia, Perth, Australia

<sup>4</sup>The Ohio State University, Columbus, USA

## Corresponding Author:

Lora Park, University at Buffalo, The State University of New York, 344 Park Hall, Buffalo, NY 14260, USA.

Email: lorapark@buffalo.edu

to spend their money. This motivational conflict, in turn, may make people vulnerable to compulsively spend but in doing so, increases their susceptibility to emotional distress and impairment in their lives from engaging in this self-defeating behavior.

### Predictors of Compulsive Buying

Money is a pervasive part of everyday life. People work to make money, spend money on goods and services, and save and invest money to grow their earnings over time. Indeed, American culture is often described as a quintessential example of corporate capitalism that encourages people to strive for extrinsic values, such as materialism and consumerism (Kasser et al., 2007). One manifestation of this type of excessive consumption is compulsive buying, which involves chronic, repetitive purchasing despite negative consequences (Edwards, 1993; Faber & O'Guinn, 1992). When people engage in compulsive buying, they purchase items they do not need or cannot afford and feel guilty, ashamed, anxious, and regretful afterward (Dittmar, 2004, 2005a; Faber & Vohs, 2011).

While some researchers focus on the link between compulsive buying and clinical disorders, social psychologists typically study purchasing behavior on a continuum from "normal" to "abnormal." The "normal" end of this continuum is characterized by ordinary or commonplace buying tendencies, while the "abnormal" end is characterized by maladaptive compulsive buying behaviors (Dittmar, 2005a, 2005b; Dittmar & Drury, 2000). From this perspective, measures of compulsive buying reflect the relative strength of problematic buying tendencies within and across individuals.

Compulsive buying is thought to be a compensatory strategy that people use to regulate their mood or reduce self-discrepancies to feel more aligned with their ideal self (Dittmar, 2004; Dittmar et al., 2007; Faber & Vohs, 2011). Rather than focusing on acquiring a particular item, compulsive buyers buy things to alter their mood or arousal level (Faber & Christenson, 1996). For example, people who endorse materialism—who value acquiring material possessions as a central life goal (Richins, 2004)—are prone to compulsive buying for emotion regulation and identity-seeking purposes (Dittmar, 2005a, 2005b)

Such findings are consistent with symbolic self-completion theory, which posits that people are motivated to compensate when they perceive inadequacies in their self-concept (Wicklund & Gollwitzer, 1982). Indeed, materialism is thought to be rooted in psychological insecurity (Kasser et al., 2007); accordingly, acquiring material goods may be one way for people with materialistic values to bolster aspects of themselves in which they feel deficient. Overall, then, research on compulsive buying suggests that these behaviors are psychologically motivated and have tangible

emotional, social, and identity-related benefits (Dittmar, 2005b).

### FCSW, Financial Motivational Conflict, and Compulsive Buying

Although compulsive buying may be a compensatory behavior, it can also create a cycle of self-defeating behavior. On one hand, accruing money is a long-term goal that requires effort and self-control through frugal spending, saving, and investing (Andrews, 2021). For some people, however, having money is not just a long-term goal but an important aspect of their self-esteem; that is, their self-worth may become *contingent* on being financially successful. People with FCSW expect hedonic and psychological benefits of financial success (Park et al., 2021) and are motivated to feel good about their financial status at the moment. The actions they take to do so, however, may conflict with behaviors needed to achieve financial success in the long term. Specifically, when people have contingent self-worth, they are likely to be motivated by a desire to pursue short-term boosts to their state self-esteem—to prove or demonstrate that they possess certain qualities on which their self-worth is based (Crocker & Park, 2004). For people with FCSW, spending money is likely to be a source of internal conflict because in the short term, buying things may lead individuals to feel that they are not restricted in their ability to spend money freely, but by spending excessively, they may threaten their long-term goal of accumulating wealth.

Given this trade-off, why would people with FCSW spend money compulsively, rather than choosing to save their money? One reason may be that FCSW is an external source of self-esteem, which requires continual validation to shore up one's feelings of worth as external domains are less stable and more conditional in their fulfillment than internal domains (Crocker & Park, 2004). Compulsive buying may thus be a behavior in everyday life that can easily and readily provide an immediate boost to self-esteem; indeed, people often engage in this behavior as a way to regulate negative affect (Faber & Christenson, 1996). Compulsive buying might also allow individuals to display their wealth to others or to behave in ways that are consistent with their belief that spending money implies being wealthy. For example, people who believe that spending implies wealth tend to spend their money lavishly (Kappes et al., 2021), and those who base their self-worth on financial success expect that having a lot of money would make them feel happier, more competent, and closer to others (Park et al., 2021).

Alternatively, the introjected motivation that people with FCSW experience may lead to a sense of restricted autonomy or freedom, which in turn, may press for behaviors to reassert control, such as spending money freely, that are antithetical to saving money. That is, the desire to save money may ironically activate a competing desire to spend

when people with FCSW are in spending contexts. Whether motivated to spend from the belief that spending signals wealth, out of a desire to display wealth to others, or to re-establish a sense of autonomy and control, people with FCSW may experience motivational conflict between wanting to spend (vs. not spend) their money in spending contexts. This conflict may then render them vulnerable to engaging in self-defeating behaviors, such as compulsive buying, that favor short-term rewards—of feeling free to spend money however they want—over long-term rewards of accumulating wealth.

Past research suggests that when individuals experience motivational conflict, situational or contextual factors can shift the balance to influence one's behavior (Kleiman & Hassin, 2011). Because people do not like to feel conflicted, they may be particularly sensitive to subtle cues in the environment suggesting that one option (e.g., spending money) is preferable to another (e.g., not spending money). For people with FCSW—for whom the goals to spend versus not spend may be equally appealing—the momentary value of spending is likely to be augmented and may overpower a desire to save money. In other words, when faced with competing goals of wanting to spend versus not spend, people with FCSW may compulsively buy things because they believe that spending implies wealth, want to display their wealth to others, or do not want to feel restricted in their spending behavior.

Although compulsive buying may provide a momentary boost to one's self-esteem or sense of freedom and autonomy, it can also be self-defeating by impeding the financial success that comes from saving and accumulating money over time. Given that people with FCSW want to be financially successful (e.g., have substantial savings), they may regret their compulsive purchasing behaviors and feel anxious, guilty, and distressed about their actions. Indeed, past research shows that compulsive buying is related to negative outcomes, such as increased psychological distress, financial and legal problems, and interpersonal conflicts (Faber, 2004). Thus, FCSW may be a vulnerability factor that makes people susceptible to engaging in compulsive buying and experiencing distress and impairment from engaging in this behavior. Furthermore, perceptions of financial motivational conflict—between wanting to spend versus not spend one's money—may be a key factor that accounts for these relationships.

To investigate these ideas, we conducted four studies. In Studies 1a and 1b, we first sought to establish connections between FCSW, compulsive buying, and distress and impairment resulting from this behavior. In Study 2, we examined the role of financial motivational conflict—between the desire to spend versus not spend money—as a potential mechanism to account for the links between FCSW, compulsive buying intentions, and anticipated distress from excessive buying. Study 3 examined the ecological validity of these ideas by testing whether FCSW predicted

actual compulsive buying behavior and distress in people's everyday lives using a 5-week diary design. Finally, Study 4 examined whether people's belief that spending implies wealth, or feeling pressure to spend money to display one's wealth to others, would amplify financial motivational conflict for people with high FCSW. In other words, we investigated whether individuals with higher FCSW who strongly endorsed these types of beliefs are more vulnerable to experiencing motivational conflict than those who do not strongly endorse such beliefs.

## Study 1a

In Study 1a, we examined whether people who base their self-worth on financial success show greater tendency to engage in compulsive spending and experience more distress and impairment in their lives from excessive buying. In these studies, we controlled for variables that have been shown in previous work to be associated with compulsive buying (i.e., gender, age, materialism, income, perceived economic pressures). Specifically, research suggests that women (Dittmar, 2005a; Faber, 2004), younger people (Dittmar, 2005a), those who endorse materialism (Dittmar, 2005a, 2005b), and those with lower incomes or face economic strain are more likely to compulsively spend (Koran et al., 2006). We therefore examined whether FCSW predicted the outcomes above and beyond the influence of these previously established correlates of compulsive buying.

## Method

**Participants and procedure.** A total of 360 participants (77% women, 21% men, 2% non-binary;  $M_{\text{age}} = 52.93$ ,  $SD = 17.11$ ) were recruited from ResearchMatch, an online platform funded by the National Institutes of Health that connects researchers with prospective participants. A priori, we aimed to recruit at least 350 participants for this study; a sensitivity analysis showed that our analyzed sample size provided adequate power ( $>.80$ ) to detect an effect of approximately  $f^2 = .022$ . The sample was 90% White, 3.6% Black, 1.7% Asian, and 4.7% other ethnicities; all participants were older than the age of 18 and living in the United States. Participants completed the following measures through the Qualtrics survey platform. For all studies, questionnaires and datasets are available in the Open Science Framework: [https://osf.io/5szmh/?view\\_only=99419699305f445c9267dd6264a82dd6](https://osf.io/5szmh/?view_only=99419699305f445c9267dd6264a82dd6). Some studies included measures not relevant to the present research (see Supplemental Materials). No participants were excluded from any of the studies.

## Materials

**FCSW.** Participants completed the FCSW scale (Park et al., 2017), which assesses how much individuals base their self-esteem on financial success. Participants responded to

**Table 1.** Zero-Order Correlations Among Study Variables (Study 1a and 1b).

	1	2	3	4	5	6	7
1. Age	—	-.18***	.16***	-.06	.10*	-.04	.05
2. Household income	.07	—	-.27***	-.01	-.09	-.15**	-.33***
3. Economic pressures	-.07***	-.27***	—	.08	.11*	.22***	.40***
4. Materialism	-.25***	-.00	.28***	—	.35***	.25***	.14**
5. FCSW	-.22***	.07	.26***	.44***	—	.21***	.20***
6. Compulsive buying	-.33***	-.14*	.34***	.39***	.40***	—	.42***
7. Distress/impairment from excessive buying	-.14**	-.19***	.40***	.22***	.35***	.51***	—

Note. Correlations in lower diagonal region show values for Study 1a data. Correlations in upper diagonal region show values for Study 1b data.

FCSW = Financial contingency of self-worth.

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

items such as, “My self-esteem depends on having a lot of money” and “I feel bad about myself when I feel like I don’t make enough money” on a scale from 1 = *strongly disagree* to 7 = *strongly agree* (five items,  $\alpha = .80$ ,  $M = 3.91$ ,  $SD = 1.07$ ).

**Compulsive buying.** Participants completed Edwards’s (1993) Compulsive Buying Scale, which measures the degree to which individuals show compulsive buying tendencies. Participants responded to items such as, “I go on buying binges,” “I feel driven to shop and spend, even when I don’t have the time or the money,” and “I buy things even though I cannot afford them” on a scale from 1 = *strongly disagree* to 7 = *strongly agree* (13 items,  $\alpha = .90$ ,  $M = 2.93$ ,  $SD = 1.16$ ). Although other measures of compulsive buying exist, they focus on clinical diagnoses and categorize individuals as compulsive versus noncompulsive buyers (e.g., Faber & O’Guinn, 1992). We used Edwards’s (1993) measure because it is recommended when examining compulsive buying on a continuum—from non-compulsive to compulsive buying—among the general consumer population, rather than identifying extreme cases of compulsive buying (Desarbo & Edwards, 1996).

**Emotional distress and impairment from buying.** Participants responded to two items reflecting emotional distress and impairment as a result of excessively buying or acquiring things. Items were adapted from a compulsive hoarding scale (Tolin et al., 2010) to focus specifically on buying and acquiring things, rather than difficulties with clutter or discarding things. The items were: “To what extent do you experience emotional distress because of problems with buying or acquiring things?” and “To what extent do you experience impairment in your life (daily routine, job/school, social activities, family activities, financial difficulties) because of problems with buying or acquiring things?” on a scale from 1 = *not at all* to 7 = *extremely* (two items,  $r = .57$ ,  $p < .001$ ,  $M = 1.66$ ,  $SD = 0.89$ ). We combined the emotional distress and impairment items because conceptually, distress and impairment often co-occur in the compulsive buying literature (Edwards, 1993; Faber, 2004).

### Covariates

**Economic pressures.** Participants completed the Economic Pressures Index (Conger et al., 1999), which assesses subjective perceptions of economic hardships over the past 6 months. Participants responded to the following items: “I have had difficulty paying monthly bills,” “I have had enough money to meet my expenses” (reverse-scored), and “I have had money left over at the end of the month” (reverse-scored) on a scale from 1 = *strongly disagree* to 7 = *strongly agree* (three items,  $\alpha = .83$ ,  $M = 2.27$ ,  $SD = 1.42$ ).

**Materialism.** Participants completed the three-item short form of the Materialistic Values Scale (Richins, 2004) by responding to the items: “I’d be happier if I could afford to buy more things”; “I admire people who own expensive homes, cars, and clothes”; and “I like a lot of luxury in my life” on a scale from 1 = *strongly disagree* to 7 = *strongly agree* (3 items,  $\alpha = .71$ ,  $M = 3.06$ ,  $SD = 1.34$ ).

**Demographics.** Participants reported their gender, age, race, and household income (1 = *less than US\$5,000* to 19 = *more than US\$1 million*;  $Mdn = US\$75,000$ – $US\$99,999$ ).

### Results

**Testing the vulnerability hypothesis.** Table 1 shows zero-order correlations among the study variables. For our primary analyses, we conducted hierarchical regression analyses to examine whether FCSW is uniquely related to greater compulsive buying tendencies and distress/impairment from buying things, even after controlling for gender, age, income, perceived economic pressures, and materialism. At Step 1 of the regression model, we entered the covariates; at Step 2, we entered FCSW scores. Table 2 summarizes the results. Consistent with a vulnerability hypothesis, the more participants based their self-worth on financial success, the more they engaged in compulsive buying and experienced greater emotional distress and impairment from buying things. These results emerged even after controlling for all other covariates in the model.



**Table 2.** Results of Hierarchical Regression Analyses Predicting Dependent Measures (Study 1a, Adult Community Sample and Study 1b, College Student Sample).

	Compulsive buying	Distress/Impairment from excessive buying	Compulsive buying	Distress/impairment from excessive buying
	B at Step 1; B at Step 2 [95% CI]	B at Step 1; B at Step 2 [95% CI]	B at Step 1; B at Step 2 [95% CI]	B at Step 1; B at Step 2 [95% CI]
Gender	.27*; .32** [.01, .52]; [.07, .57]	.03; .08 [-.18, .24]; [-.12, .28]	<b>.77***; .77***</b> <b>[.57, .98]; [.57, .97]</b>	<b>.16; .15</b> <b>[-.09, .41]; [-.10, .40]</b>
Age	-.02***; -.01*** [-.02, .01]; [-.02, -.01]	-.00; .00 [-.01, .01]; [-.00, .01]	<b>-.02; -.03</b> <b>[-.08, .03]; [-.09, .03]</b>	<b>-.03; -.04</b> <b>[-.10, .04]; [-.11, .03]</b>
Household income	-.02; -.03 [-.05, .02]; [-.06, .01]	-.03*; -.04** [-.06, -.01]; [-.07, -.02]	<b>-.02; -.02</b> <b>[-.05, .01]; [-.04, .01]</b>	<b>-.08***; -.08</b> <b>[-.12, -.05]; [-.11, -.05]</b>
Economic pressures	.19***; .16*** [.11, .27]; [.08, .24]	.20***; .16*** [.13, .26]; [.10, .23]	<b>.17***; .16***</b> <b>[.08, .25]; [.08, .25]</b>	<b>.45***; .45***</b> <b>[.35, .56]; [.34, .55]</b>
Materialism	.21***; .17*** [.16, .33]; [.08, .26]	.10***; .03 [.03, .17]; [-.04, .10]	<b>.20***; .16***</b> <b>[.12, .28]; [.08, .25]</b>	<b>.09; .05</b> <b>[-.01, .19]; [-.06, .16]</b>
FCSW	.26*** [.15, .37] Step 1 $R^2 = .28$ , $F(5, 344) = 26.94***$ Step 2 $\Delta R^2 = .04$ $\Delta F(1, 343) = 21.13***$	.24*** [.15, .33] Step 1 $R^2 = .19$ , $F(5, 344) = 15.78***$ Step 2 $\Delta R^2 = .06$ , $\Delta F(1, 343) = 28.26***$	<b>.13*</b> <b>[.02, .24]</b> <b>Step 1 <math>R^2 = .24</math>,</b> <b><math>F(5, 394) = 23.58***</math></b> <b>Step 2 <math>\Delta R^2 = .01</math>,</b> <b><math>\Delta F(1, 393) = 5.07*</math></b>	<b>.15*</b> <b>[.01, .29]</b> <b>Step 1 <math>R^2 = .26</math>,</b> <b><math>F(5, 394) = 26.95***</math></b> <b>Step 2 <math>\Delta R^2 = .01</math>,</b> <b><math>\Delta F(1, 393) = 4.66*</math></b>

Note. Bs reflect unstandardized beta coefficients. Unbolded font = Study 1a results; bolded font = Study 1b results. FCSW = Financial contingency of self-worth.

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

## Discussion

Findings from Study 1 provided initial evidence that basing self-worth on money is a vulnerability when it comes to purchasing behavior. The more people staked their self-worth on being financially successful, the more likely they were to engage in compulsive buying. Furthermore, these individuals felt more emotionally distressed and impaired in their everyday lives due to excessive buying. These findings emerged even after accounting for demographic variables, materialism, and perceived economic hardships in one's life.

A limitation of the present study is that the sample was predominantly White, female, and older than the average U.S. population, so it is unclear how generalizable the findings are to other populations. We therefore conducted a replication study among a more diverse gender and an ethnic sample of college students enrolled in Introductory Psychology courses at a large public university in the United States.

## Study 1b: Replication With College Students

A total of 429 participants (51% women, 48% men, 1% non-binary;  $M_{age} = 19.35$ ,  $SD = 1.83$ ) completed the study in exchange for partial course credit. We sought to recruit as many participants as possible over a 15-week semester; a sensitivity analysis showed that our analyzed sample size provided adequate power ( $>.80$ ) to detect an effect of

approximately  $f^2 = .018$ . The sample was 42.1% White, 35.7% Asian, 10.5% Black, 6.2% Latino/a, and 5.5% other ethnicities; the median household income was US\$75,000 to US\$99,999. Participants completed the same measures as in Study 1 assessing FCSW (five items,  $\alpha = .72$ ,  $M = 4.48$ ,  $SD = 1.00$ ), compulsive buying behavior (13 items,  $\alpha = .89$ ,  $M = 3.80$ ,  $SD = 1.16$ ), emotional distress and impairment from excessively buying and acquiring things (two items,  $r = .72$ ,  $p < .001$ ,  $M = 2.48$ ,  $SD = 1.38$ ), perceived economic pressures (three items,  $\alpha = .72$ ,  $M = 2.89$ ,  $SD = 1.24$ ), materialism (three items,  $\alpha = .72$ ,  $M = 4.89$ ,  $SD = 1.27$ ), and demographics.

Table 1 shows zero-order correlations among the variables. Replicating Study 1a, the results of hierarchical regression analyses with covariates at Step 1 and FCSW at Step 2 showed that the model with FCSW was significant for compulsive buying and for distress/impairment from buying things. Table 2 summarizes the results. Consistent with the vulnerability hypothesis and with Study 1a, FCSW predicted significantly more compulsive buying and emotional distress/impairment from buying things.

Together, results across both studies suggest that basing self-worth on financial success is a vulnerability associated with more compulsive buying and emotional distress/impairment from excessive spending. Why might this be? Study 2 sought to address this question by examining financial motivational conflict as an underlying psychological process to help explain the association between FCSW and compulsive buying-related outcomes.

## Study 2

When people base their self-worth on financial success, they are likely to experience competing desires to spend versus not spend their money. On one hand, if the goal is to actually *accumulate* wealth, people need to save their money and not spend excessively. On the other hand, spending money freely to acquire things can serve as a positive and affirming experience. This motivational conflict may even increase the momentary value of spending by enhancing the allure of “forbidden” behavior. However, excessive purchasing can take a toll on well-being by compromising one’s long-term financial goals and increasing emotional distress. Based on these ideas, the purpose of Study 2 was to develop a measure of financial motivational conflict and to test whether heightened motivational conflict explains why people with higher FCSW engage in more compulsive buying and show more distress/impairment than those with lower FCSW.

### Participants and Procedure

A total of 339 participants (76% women, 21% men, 3% non-binary;  $M_{age} = 50.91$ ,  $SD = 16.84$ ) were recruited from ResearchMatch. A priori, we aimed to recruit at least 350 participants for this study; a sensitivity analysis showed that our analyzed sample size provided adequate power ( $>.80$ ) to detect an effect of approximately  $f^2 = .023$ . In addition, Monte Carlo power simulations revealed that the present study had adequate power ( $>.80$ ) to detect an indirect effect of financial goal conflict on the outcome variables (Schoemann et al., 2017). The sample was 87.6% White, 1.8% Black, 3.5% Asian, 2.4% Latino/a, and 4.7% other ethnicities. Participants completed the following questionnaires, which were embedded among other items not relevant to the present research.

**FCSW.** Same as in Study 1a (five items,  $\alpha = .80$ ,  $M = 3.85$ ,  $SD = 1.26$ ).

**Financial motivational conflict.** We generated 10 items to assess the degree to which individuals experience motivational conflict between wanting to spend versus wanting to not spend money. Sample items were, “I experience internal conflict between wanting to spend versus not spend my money,” “I feel conflicted whenever I have to make a decision about whether or not to buy something,” and “I feel torn between wanting to spend money to buy things versus not wanting to spend my money,” which participants responded to on a scale from 1 = *not at all* to 5 = *very much*. The exploratory factor analysis of these items is reported in the results section.

**Compulsive buying intentions.** We changed the wording of the compulsive buying scale to ask participants what they *would* do, rather than what they actually do, to gauge people’s

behavioral *intentions* to engage in compulsive buying. Specifically, participants indicated how much they would feel or do the following (e.g., “I would buy things even if I didn’t need anything”; “I would buy things even though I could not afford them”) from 1 = *strongly disagree* to 7 = *strongly agree* (five items,  $\alpha = .90$ ,  $M = 1.91$ ,  $SD = 1.29$ ; adapted from Edwards, 1993). Due to space and time constraints, we kept the scales brief in the current study rather than assessing the full scale.

**Emotional reactions from buying things.** Participants were asked to imagine their emotional responses following a shopping spree by responding to the question, “How much would you feel the following emotions after making your purchases?” on a scale from 1 = *not at all* to 7 = *very*. The items consisted of negative emotions (i.e., anxious, guilty, ashamed, regretful; four items,  $\alpha = .91$ ,  $M = 4.06$ ,  $SD = 1.78$ ) and positive emotions (i.e., happy, excited, pleased; three items,  $\alpha = .90$ ,  $M = 4.02$ ,  $SD = 1.53$ ).

**Covariates.** Participants completed the same measures as in Study 1a assessing perceived economic pressures (three items,  $\alpha = .86$ ,  $M = 3.09$ ,  $SD = 1.05$ ) and materialism (three items,  $\alpha = .71$ ,  $M = 2.74$ ,  $SD = 1.32$ ).

**Demographics.** Same as in Study 1a (*Mdn* income = \$75,000–\$99,999).

## Results

**Exploratory factor analysis of financial motivational conflict items.** Given that the financial motivational conflict items were newly developed for this study, we first examined their structure with exploratory factor analysis (i.e., a principal factor analysis with oblique rotation using robust maximum likelihood estimation). Parallel analysis suggested the extraction of two factors, which were uncorrelated ( $r = .06$ ). Table 3 shows the factor loadings. Factor 1 had strong loadings for Items 1 to 7 (standardized loadings = .71–.93), and these items had negligible cross-loadings on Factor 2 ( $<|.06$ ). Items 9 and 10, which both assess beliefs about the meaning of being wealthy, loaded strongly on Factor 2 (standardized loadings = .95 and .56) and had negligible cross-loadings on Factor 1 ( $<|.04$ ). Finally, Item 8 loaded weakly on both factors (Factor 1 loading = .147; Factor 2 loading =  $-.091$ ). These results suggest that Items 1 to 7 are good markers of the overall construct of financial motivational conflict ( $\alpha = .94$ ,  $M = 3.30$ ,  $SD = 1.10$ ). Item 8 was dropped due to its weak loadings, and Items 9 and 10 were dropped because they seem to represent beliefs about wealth, rather than perceived motivational conflict between wanting to spend versus not wanting to spend, which was the main focus of the present research.

**Confirmatory factor analyses of financial motivational conflict items.** In a separate study ( $N = 243$ ; see Study 3 for details

**Table 3.** Psychometric Properties of Financial Motivational Conflict Items (Study 2).

Item	Factor loadings	
	Factor 1	Factor 2
	Financial motivational conflict	
1. I experience internal conflict between wanting to spend money versus not wanting to spend money.	.888*	-.009
2. I feel conflicted about buying things that might make me feel guilty later on for buying them.	.729*	.005
3. I feel torn between wanting to spend money to buy things versus not wanting to spend my money.	.935*	-.016
4. I experience internal conflict between wanting to spend versus not spend my money.	.929*	.005
5. I feel conflicted whenever I have to make a decision about whether or not to buy something.	.726*	-.026
6. I feel discomfort when I have to decide whether or not to spend my money on something.	.705*	.032
7. I experience internal conflict between wanting to spend versus wanting to save my money.	.862*	.058
8. Choosing whether to spend or not spend my money is not a source of stress for me. (reverse)	.147*	-.091
9. Being wealthy means not having to worry about how much you are spending.	-.003	.953*
10. Being wealthy means not having to worry about saving money.	.039	.563*

\* $p < .05$ .

**Table 4.** Standardized Factor Loadings and Standard Errors From the One-Factor Confirmatory Factor Analysis (Study 3).

Item	Factor 1
	Financial motivational conflict
Item 1	.899 (.017)
Item 2	.702 (.046)
Item 3	.916 (.017)
Item 4	.953 (.009)
Item 5	.769 (.031)
Item 6	.718 (.043)
Item 7	.873 (.022)

Note. All loadings are significant at  $p < .001$ .

about participants), we tested a single-factor structure for the financial motivational conflict items from Study 2 (i.e., Items 1–7;  $\alpha = .94$ ) using confirmatory factor analysis with robust maximum likelihood estimators in an independent sample (see Table 4). We examined model fit using the following criteria: Comparative Fit Index (CFI) should be .90 to .95 for good fit and above .95 for excellent 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 .08 (Browne & Cudeck, 1992). A single-factor model fit the data well:  $\chi^2(14) = 43.27$ ,  $p < .001$ ; CFI = .969; RMSEA = .093, SRMR = .036. Standardized factor loadings ranged from .70 to .95.

Based on these results, we retained Items 1 to 7 as a composite for financial motivational conflict in subsequent analyses.

**Testing the vulnerability hypothesis.** Table 5 shows zero-order correlations among the study variables. For our primary analyses, we conducted a series of hierarchical multiple regression analyses. Table 6 summarizes the results. At

Step 1 of the regression model, we entered the covariates; at Step 2, we entered FCSW scores. Supporting the vulnerability hypothesis, results revealed that higher FCSW predicted significantly greater financial motivational conflict, marginally more compulsive buying intentions, and significantly higher anticipated negative affect from making excessive purchases.

**Financial motivational conflict as a mediator.** We next tested whether financial motivational conflict mediated the relationship between (a) FCSW and compulsive buying, and (b) FCSW and negative affect from making excessive purchases. We used Hayes's (2018) PROCESS macro (Model 4) in which we entered FCSW as the predictor variable (X), Compulsive Buying Intentions as the outcome variable (Y), and financial motivational conflict as the mediator, with perceived economic pressures, materialism, gender, age, and income entered as covariates. Results are summarized in Figure 1. The more participants based their self-worth on financial success, the more motivational conflict they experienced between wanting to spend and not spend their money, which was related to greater compulsive buying intentions. Furthermore, the indirect effect was significant, suggesting that financial motivational conflict mediated the relationship between FCSW and compulsive buying,  $B = .06$ , 95% CI [.02, .10].

Next, using the same PROCESS macro (Model 4), we tested whether financial motivational conflict accounted for the link between FCSW and the anticipated negative affect from making excessive purchases (see Figure 2). Results showed that the more participants based their self-worth on financial success, the more financial motivational conflict they experienced, which was related to greater anticipated negative affect from making compulsive purchases. Furthermore, the indirect effect was significant, suggesting that financial motivational conflict mediated the relationship

**Table 5.** Zero-Order Correlations Among Study Variables (Study 2).

	1	2	3	4	5	6	7	8	9
1. Age	—								
2. Household income	.08	—							
3. Economic pressures	-.13*	-.35***	—						
4. Materialism	-.00	.00	.08	—					
5. FCSW	-.11*	.00	.14*	.42***	—				
6. Financial motivational conflict	-.29*	-.13*	.33***	.19***	.41***	—			
7. Compulsive buying	-.18**	-.21***	.28***	.32***	.23***	.30***	—		
8. Emotional distress from buying	-.23***	-.18***	.23***	.01	.22***	.48***	.01	—	
9. Positive affect from buying	-.04	-.02	-.04	.25***	.09	.05	.31***	-.43***	—

Note. FCSW = Financial contingency of self-worth.

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

**Table 6.** Results of Hierarchical Regression Analyses Predicting Dependent Measures (Study 2, Adult Community Sample).

	Financial motivational conflict	Compulsive buying	Negative affect from buying	Positive affect from buying
	B at Step 1; B at Step 2 [95% CI at each step]	B at Step 1; B at Step 2 [95% CI]	B at Step 1; B at Step 2 [95% CI]	B at Step 1; B at Step 2 [95% CI]
Gender	.36**;.37** [.12, .60]; [.14, .59]	-.04; -.04 [-.32, .24]; [-.31, .24]	.24; .24 [-.18, .65]; [-.16, .65]	-.07; -.07 [-.43, .29]; [-.43, .29]
Age	-.01***; -.01*** [-.02, -.01]; [-.02, -.01]	-.01***; -.01** [-.02, -.00]; [-.02, -.00]	-.02***; -.02** [-.03, -.01]; [-.03, -.01]	-.01; -.01 [-.01, .01]; [-.02, .01]
Household income	-.00; -.01 [-.03, .03]; [-.05, .02]	-.04*; -.04* [-.08, -.01]; [-.08, -.01]	-.05; -.05† [-.10, .01]; [-.11, .00]	-.02; -.02 [-.07, .03]; [-.07, .03]
Economic pressures	.28***;.24*** [.17, .39]; [.14, .35]	.25***;.24*** [.13, .38]; [.11, .37]	.28**;.24* [.09, .46]; [.05, .42]	-.12; -.12 [-.29, .04]; [-.28, .04]
Materialism	.15***;.04 [.07, .23]; [-.04, .13]	.29***;.25*** [.20, .39]; [.15, .35]	.01; -.11 [-.13, .15]; [-.26, .04]	.28***;.29*** [.16, .40]; [.16, .42]
FCSW	.29*** [.20, .38] Step 1: $R^2 = .21$ $F(5, 325) = 17.59***$ Step 2: $\Delta R^2 = .09$ $\Delta F(1, 324) = 41.87***$	.10† [-.00, .21] Step 1 $R^2 = .21$ $F(5, 325) = 17.69***$ Step 2 $\Delta R^2 = .01$ $\Delta F(1, 324) = 3.62†$	.31*** [.15, .47] Step 1 $R^2 = .10$ $F(5, 325) = 7.43***$ Step 2 $\Delta R^2 = .04$ $\Delta F(1, 324) = 14.96***$	-.02 [-.16, .12] Step 1 $R^2 = .07$ $F(5, 325) = 4.78***$ Step 2 $\Delta R^2 = .00$ $\Delta F(1, 324) = .06$

Note. Bs reflect unstandardized coefficients. CI = confidence interval; FCSW = Financial contingency of self-worth.

† $p < .06$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

between FCSW and anticipated negative affect from compulsive buying,  $B = .21$ , 95% CI [.13, .30].

## Discussion

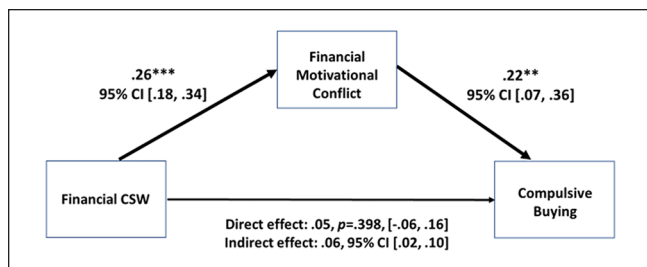
When a person's self-worth is tied to financial success, spending money may make them feel good in the moment or promote a sense of autonomy and control, but may also be related to negative emotions because making excessive purchases detracts from their long-term goal to accrue wealth. Consistent with this idea, Study 2 revealed that the more individuals staked their self-worth on being financially successful, the more internal conflict they experienced between wanting to spend and not spend their money. Financial motivational

conflict, in turn, was related to greater intentions to engage in compulsive buying, such as feeling compelled to go shopping and buying things one could not afford. However, the more people with FCSW experienced financial motivational conflict, the more negative affect they expected to feel when they imagined going on a buying binge.

## Study 3

In the next study, we investigated the ecological validity of these ideas by examining whether weekly shifts in people's tendency to base their self-worth on money were related to greater financial motivational conflict, compulsive buying behavior, and emotional reactions to buying things over time.

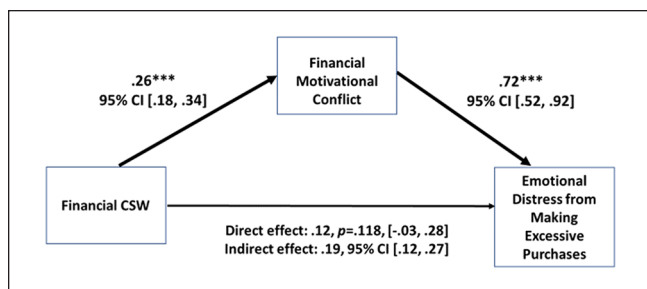




**Figure 1.** Results of mediation analysis for Study 2 predicting compulsive buying.

Note. Paths reflect unstandardized beta coefficients. Bolded paths depict the significant indirect effect from Financial CSW to compulsive buying controlling for gender, age, income, perceived economic pressures, and materialism. Financial CSW = Financial contingency of self-worth.

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



**Figure 2.** Results of mediation analysis for Study 2 predicted emotional distress from making excessive purchases.

Note. Paths reflect unstandardized beta coefficients. Bolded paths depict the significant indirect effect from Financial CSW to emotional distress controlling for gender, age, income, perceived economic pressures, and materialism. CSW = contingent self-worth.

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

In addition to controlling for covariates from the previous studies (i.e., gender, age, income, perceived economic pressures, materialism), we assessed baseline levels of impulsivity as well as weekly perceived financial stress to further examine the unique role of FCSW, given that impulsivity is positively related to compulsive buying (DeSarbo & Edwards, 1996).

Once a week for 5 weeks, participants reported their FCSW, financial motivational conflict, compulsive buying behavior, and emotional reactions to purchases. This approach allowed us to conduct both a conceptual replication of Studies 1a, 1b, and 2 (i.e., results of FCSW at the between-person, average level) while also examining intrapersonal variability over time (i.e., within-person associations, which shows associations among variables within a given week). Although people's bases of self-esteem are generally stable, the extent to which individuals base their self-worth on domains of contingency can fluctuate (Knee et al., 2008; Ward et al., 2020).

We predicted that during weeks when participants based their self-worth more (vs. less) on financial success, they would experience greater motivational conflict between wanting to spend and not spend their money. We also

expected that during weeks in which participants reported experiencing more (vs. less) financial motivational conflict, they would engage in more compulsive buying and experience more emotional distress and impairment as a result. Finally, consistent with our previous studies, we predicted that participants with higher (vs. lower) average FCSW would experience greater financial motivational conflict, on average, across the duration of the study. Likewise, participants who experience more (vs. less) average financial motivational conflict were expected to engage in more compulsive buying and experience greater distress and impairment, on average, across the duration of the study.

### Participants and Procedure

A total of 243 participants (70% women, 29% men, 1% non-binary;  $M_{age} = 55.82$ ,  $SD = 16.30$ ) were recruited through ResearchMatch to participate in a 6-week online study examining people's experiences and beliefs. The sample was 91.2% White, 2.5% Black, 1.3% Asian, 0.4% Latino/a, and 4.6% other ethnicities. For completing the baseline survey, participants were entered into a raffle drawing for one of five US\$10 Amazon gift cards. For each subsequent weekly survey participants completed, they were entered into a raffle drawing for one of five US\$10 Amazon gift cards. In addition, for each survey participants completed throughout the study, they earned a chance to win one of two US\$50 Amazon gift cards. Thus, if participants completed all six surveys in the study, they had six chances to win one of the US\$50 Amazon gift cards. Our sample size of 243 participants with 6 weekly reports is considered adequate for multilevel modeling, based upon multilevel simulation studies that recommend at least 100 Level 2 units and at least 5 Level 1 units (Maas & Hox, 2005).

Participants were told that the study consisted of two parts. In Part 1, participants completed a background survey consisting of questionnaires related to their experiences with finances and spending. Specifically, they reported their baseline levels of FCSW, perceived economic pressures, other financially relevant variables (i.e., income, materialism), and demographics. In Part 2, participants completed a series of brief follow-up surveys, which were emailed to them once a week over the next 5 weeks. Participants reported how much they based their self-worth on financial success, experienced financial motivational conflict between wanting to spend versus not spend their money, engaged in compulsive buying behavior, and experienced positive and negative emotional reactions and distress from making purchases over the previous week. Due to time and space constraints, we used shortened versions of the scales in Part 2.

### Materials

**FCSW.** As part of the initial baseline survey, participants completed the FCSW scale with items such as, "My

self-esteem depends on having a lot of money” on a scale from 1 = *strongly disagree* to 7 = *strongly agree*. To assess participants’ weekly FCSW, participants responded to a modified version of the five-item FCSW scale with items such as, “Over the past week, my self-esteem depended on having a lot of money” and “Over the past week, I felt like my self-esteem was influenced by how much money I make” from 1 = *strongly disagree* to 7 = *strongly agree* (5 items for both baseline and weekly diary surveys; within-person  $\alpha = .53$ , between-person  $\alpha = .94$ ,  $M_{\text{range}} = 3.14\text{--}3.77$ ,  $SD_{\text{range}} = 1.18\text{--}1.26$ ). In nested data, scale reliability can differ across levels (i.e., within-person versus between-person). We therefore calculated alphas separately at each level with Mplus software using the method and syntax developed by Geldhof and colleagues (2014).

**Financial motivational conflict.** Participants reported the extent to which they experienced conflict between the desire to spend versus not spend money over the past week. Due to time and space constraints, we administered four of the seven financial motivational conflict items described in Study 2 that started with the stem, “Over the past week. . .” “I experienced internal conflict between wanting to spend money versus not wanting to spend money”; “I felt conflicted when I had to make a decision about whether or not to buy something”; “I felt torn about whether I should buy things that I did not really need”; and “I experienced discomfort when I had to decide whether to spend versus save money” on a scale from 1 = *not at all* to 5 = *very much* (4 items for weekly diary; within-person  $\alpha = .66$ , between-person  $\alpha = .96$ ,  $M_{\text{range}} = 2.24\text{--}2.52$ ,  $SD_{\text{range}} = 1.19\text{--}1.27$ ).

**Compulsive buying.** Participants reported how often they engaged in compulsive buying behavior over the past week with items such as, “Over the past week, how often did you . . .” “feel driven to shop and spend, even if you didn’t have the money?” “feel compelled to go shopping?” “go on a buying binge?” “buy things even if you could not afford them?” “buy things even if you didn’t need anything?” on a scale from 1 = *not at all* to 5 = *almost always* (5 items for weekly diary; within-person  $\alpha = .67$ , between-person  $\alpha = .94$ ,  $M_{\text{range}} = 1.34\text{--}1.48$ ,  $SD_{\text{range}} = 0.60\text{--}0.72$ ; Edwards, 1993).

**Distress/impairment from buying things.** Participants reported how guilty, ashamed, anxious, and regretful they felt after making purchases over the past week on a scale from 1 = *not at all* to 5 = *almost always*. Using the same scale, participants also reported the extent to which they felt emotional distress and impairment as a result of problems with buying “too much stuff” (6 items for weekly diary; within-person  $\alpha = .62$ , between-person  $\alpha = .97$ ,  $M_{\text{range}} = 1.37\text{--}1.43$ ,  $SD_{\text{range}} = 0.60\text{--}0.66$ ).

**Positive affect from buying things.** Participants reported how excited, happy, and pleased they felt after making purchases over the past week from 1 = *not at all* to 5 = *almost always*

(3 items for weekly diary; within-person  $\alpha = .81$ , between-person  $\alpha = .97$ ,  $M_{\text{range}} = 2.80\text{--}2.96$ ,  $SD_{\text{range}} = 0.97\text{--}1.04$ ).

## Covariates

**Demographics.** Participants reported their gender, age, and household income (1 = *<US\$5,000* to 19 = *>US\$1 million*;  $Mdn = \text{US\$}75,000\text{--}\text{US\$}99,999$ ) as part of the baseline survey.

**Perceived economic pressures.** Participants reported their baseline perceptions of economic pressures over the past 6 months with items such as, “I have had difficulty paying monthly bills” on a scale from 1 = *strongly disagree* to 5 = *strongly agree* (three items for baseline,  $\alpha = .83$ ,  $M = 1.73$ ,  $SD = 1.00$ ; Conger et al., 1999).

**Materialism.** As part of the baseline survey, participants completed the nine-item version of the Materialistic Values Scale (Richins, 2004) by indicating their agreement with statements such as, “I admire people who own expensive homes, cars, and clothes” and “I like a lot of luxury in my life” from 1 = *strongly disagree* to 5 = *strongly agree* (nine items for baseline,  $\alpha = .83$ ,  $M = 2.96$ ,  $SD = 1.09$ ).

**Impulsivity.** To assess baseline levels of impulsivity, participants completed the brief Barratt Impulsiveness Scale (Steinberg et al., 2013) with items such as, “I do things without thinking” and “I act on the spur of the moment” from 1 = *rarely/never* to 4 = *almost always/always* (8 items for baseline,  $\alpha = .79$ ,  $M = 1.87$ ,  $SD = 0.46$ ).

**Financial stress.** To control for weekly financial stress, participants reported how often they “felt stressed about finances” and “financially insecure” over the past week on a scale from 1 = *not at all* to 5 = *very often* (2 items for weekly diary, within  $r = .33$ , between  $r = .93$ ,  $M_{\text{range}} = 1.88\text{--}2.01$ ,  $SD_{\text{range}} = 1.04\text{--}1.10$ ).

## Results

**Data analysis plan.** We used MPlus 8.3 (Muthén & Muthén, 1998–2017) to conduct multilevel modeling within the structural equation modeling framework. Given that weekly reports of the variables were nested within persons, multilevel modeling was necessary to handle the nonindependence of observations (Kenny et al., 2003). MPlus conducts multilevel analyses by creating two uncorrelated latent variables that represent between-person (i.e., overall individual differences) and within-person (i.e., fluctuations across weeks) variance for each daily variable. Thus, the within-person estimates are group mean-centered, and analyses for each level controls for variability in the other level. Robust maximum likelihood estimation (MLR) was used to account for missing data and deviations from normality. We examined model fit using the same criteria as in Study 2.

**Table 7.** Zero-Order Correlations Among Weekly and Baseline Variables (Study 3).

	1	2	3	4	5	6	7	8	9	10	11	12
1. Weekly FCSW	(.78)	.12**	.15***	.06	.05	-.02						
2. Weekly financial motivational conflict	.50***	(.73)	.23***	.21***	.19***	.05						
3. Weekly financial stress	.52***	.77***	(.82)	.11*	.21***	.02						
4. Weekly compulsive buying	.41***	.66***	.64***	(.80)	.35***	.19***						
5. Weekly distress/impairment	.48***	.79***	.77***	.82***	(.81)	.15**						
6. Weekly positive affect	.14	.03	-.05	.23*	.15	(.56)						
7. Baseline Financial CSW	.79***	.37***	.36***	.26***	.31***	-.05						
8. Gender	-.16**	.14	.14	.11	.10	.06	-.02					
9. Age	-.31***	-.45***	-.37***	-.32***	-.35***	-.00	-.30***	-.23***				
10. Income	.07	-.15	-.35***	-.24*	-.18*	.05	.13*	-.13	.03			
11. Baseline economic pressures	.26***	.38***	.66***	.42**	.45***	-.04	.16	.13	-.16*	-.44***		
12. Baseline materialism	.58***	.38***	.49***	.49***	.43***	.20*	.49***	-.06	-.25***	-.09	.39***	
13. Baseline impulsivity	.15*	.30***	.28***	.38***	.33***	.14	.08	.09	-.12	-.19**	.26***	.16*

Note. Within-person correlations are shown above the diagonal and between-person correlations are shown below the diagonal. Values in parentheses are intraclass correlations for the weekly variables. Weekly distress/impairment and positive affect are in response to buying things. FCSW = Financial contingency of self-worth.

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

All within-person model regression paths included the week of study participation as a covariate to account for any linear trends over time. In addition, weekly financial stress was considered as a covariate for within-person models, and the following individual difference covariates were considered for between-person models: gender, age, household income, perceived economic pressures, materialism, and impulsivity. To increase model parsimony, these covariates were only included on a regression path if they were significantly correlated with that outcome variable (see Table 7). All exogenous variables, including covariates, were allowed to covary with one another.

For models testing interactions, we used the latent moderated structural equations method (LMS; Klein & Moosbrugger, 2000; Klein & Muthén, 2007) as it improves the precision and reliability of interaction terms by using a latent variable framework. These analyses are complex and computationally intensive, so Bayesian estimation was used because it better accommodates this complexity. Bayesian estimation does not yield the above standard fit indices, so they are not reported for these analyses.

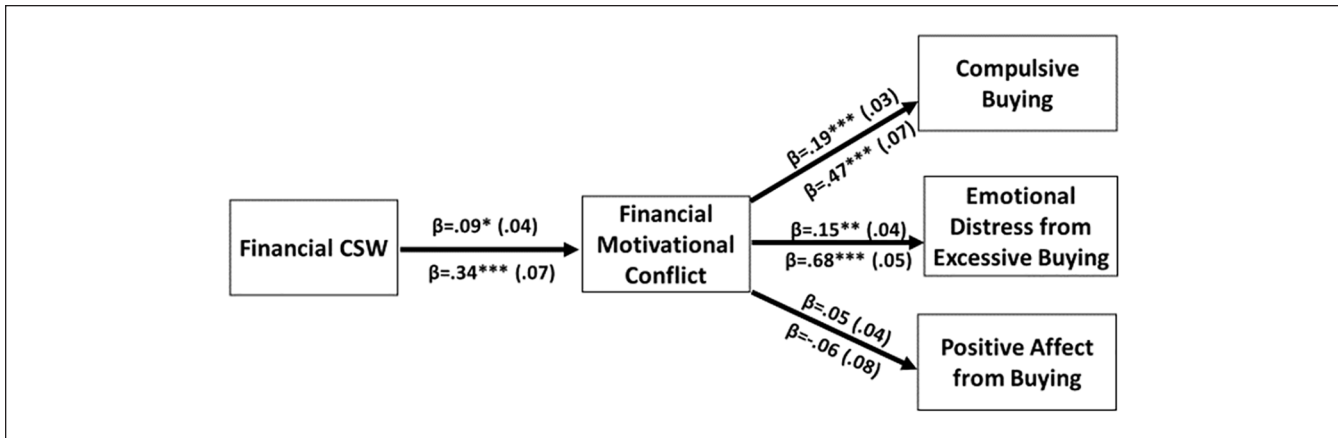
**Descriptive statistics.** Zero-order correlations at the within- and between-person levels among weekly variables and baseline covariates are shown in Table 7 as well as intraclass correlations for the weekly variables. Intraclass correlations indicated that all variables had substantially more variance between persons (i.e., 56%–82%) than variance within persons or across weeks (i.e., 18%–44%), consistent with substantial stability in scores from week to week. Among the weekly variables, FCSW, financial motivational conflict, financial stress, compulsive buying, and distress/impairment from excessively buying things were generally strongly and positively correlated at the between-person level and less

strongly correlated at the within-person level. Weekly positive affect from making purchases was largely unrelated to the other weekly variables.

**Testing the vulnerability hypothesis.** We first examined a path model to test the vulnerability hypothesis, modeling effects at the within-person and between-person levels, with covariates as described previously. Specifically, we tested whether weekly FCSW predicted greater weekly perceived financial motivational conflict to predict more compulsive buying, more distress/impairment, and less positive affect from excessively buying things. Model fit was excellent:  $\chi^2(15) = 25.506$ ,  $p = .044$ , CFI = .991, RMSEA = .024, SRMR within = .032, SRMR between = .024 (see Figure 3). Weekly FCSW was related to more weekly financial goal conflict both with regard to within-person effects each week and between-person effects. In addition, at both levels, greater financial motivational conflict predicted more compulsive buying and more distress/impairment from buying things. The financial motivational conflict was not significantly related to positive affect from buying things at either level.

## Discussion

Study 3 provided further support for the idea that FCSW is a vulnerability factor in everyday life. Consistent with the previous study, the more individuals based their self-worth on financial success, the more motivational conflict they experienced between wanting to spend and not spend their money. This internal conflict was related to engaging in more compulsive buying and more distress and impairment from excessive buying both overall (i.e., across participants) and at the individual level (i.e., within participants) across 5 weeks. Notably, these findings emerged even after controlling for



**Figure 3.** Path analysis results for Study 3 for compulsive buying, emotional distress from excessive buying, and positive affect from buying.

Note. Within-person standardized parameter estimates and standard errors are shown above the regression path, and between-person estimates are shown below the path, controlling for relevant covariates.

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

individual differences in demographics (gender, age, household income), perceived economic pressures, materialism, and impulsivity.

Together, these findings suggest that both in general and on a week-to-week basis, regardless of one's financial situation, individuals who highly based their self-worth on being financially successful were more vulnerable to making compulsive purchases and experiencing negative emotions (e.g., shame, guilt) and increased distress and impairment as a result of making these compulsive purchases.

#### Study 4

The purpose of the final study was twofold. First, we wanted to further investigate why people with high FCSW experience financial motivational conflict. Based on our initial theorizing, individuals may feel torn between wanting to spend versus not spend their money due to (a) a general belief that spending implies wealth or (b) feeling pressure to spend money to display their wealth to others. According to CSW theory, individuals experience introjected self-regulation—they feel immense pressure—to succeed in domains of contingency and to prove to themselves and to others that they possess certain qualities on which their self-esteem is based (Crocker & Park, 2004; Park et al., 2007).

When individuals base their self-esteem on financial success, they feel like they *have to* excel in this domain—to demonstrate that they are financially well-off—to feel like a person of worth and value. In the present study, we hypothesized that for people with FCSW, beliefs about spending implying wealth, or feeling pressured to spend money to display their wealth to others, might underlie their experience of financial motivational conflict and in turn, increase their tendency to engage in compulsive buying. We did not have strong a priori hypotheses about which of these

possibilities—spending implies wealth beliefs or pressure to spend to display wealth to others—would interact with FCSW to predict financial motivational conflict.

A second aim was to further distinguish FCSW and financial motivational conflict from other related constructs, such as trait self-control, causal uncertainty, materialism, impulsivity, and other external CSWs. If there is something unique about FCSW, then this particular domain of contingency should predict more financial motivational conflict, compulsive buying, and distress/impairment from excessive buying, even after controlling for these other variables.

#### Participants and Procedure

A total of 444 participants (57% women, 43% men, 0.5% non-binary;  $M_{age} = 19.09$ ,  $SD = 1.25$ ) were recruited from the introductory psychology subject pool at a large university in the Northeast. A priori, we aimed to recruit at least 400 participants for this study; a sensitivity analysis showed that our analyzed sample size provided adequate power ( $>.80$ ) to detect a small effect of approximately  $f^2 = .017$  for the interactions between (a) FCSW and Spending Implies Wealth Beliefs and (b) FCSW and Pressure to Display Wealth. The sample was 52.7% White, 10.4% Black, 24% Asian, 5.9% Latino/a, and 7.0% other ethnicities. Participants completed the following questionnaires.

**FCSW.** Same as in Study 1a (five items,  $\alpha = .78$ ,  $M = 4.53$ ,  $SD = 1.06$ ).

**Financial motivational conflict.** Same as in Study 2 (seven items,  $\alpha = .92$ ,  $M = 3.65$ ,  $SD = 0.85$ ).

**Compulsive buying intentions.** Same as in Study 1a (13 items,  $\alpha = .90$ ,  $M = 3.69$ ,  $SD = 1.11$ ).



*Emotional distress and impairment from buying.* Same as in Study 1a (two items,  $r = .68$ ,  $p < .001$ ,  $M = 3.25$ ,  $SD = 1.46$ ).

*Spending implies wealth beliefs.* Participants completed the Spending Implies Wealth Beliefs scale (Kappes et al., 2021), which asks people to indicate their agreement with items such as “Spending a lot indicates that someone is wealthy” and “I think people who spend more are wealthier than people who spend less” on a scale from 1 = *strongly agree* to 7 = *strongly disagree* (three items,  $\alpha = .93$ ,  $M = 2.69$ ,  $SD = 1.17$ ).

*Pressure to spend to display wealth to others.* We developed a five-item measure to assess the degree to which individuals feel pressure to spend money to prove their wealth to others. The items were: “I feel pressured to spend money to display my financial wealth”; “If I don’t spend money, others might think that I don’t have much to spend”; “To prove that I have money, I must be willing to spend it”; “If I want to show that I am financially well-off, I need to spend money”; and “I feel pressured to spend money to demonstrate that I am financially well-off.” Results of a principal axis factor analysis with promax rotation revealed a one-factor solution that explained 85.57% of the variance. The five items were averaged together to create a composite measure ( $\alpha = .93$ ,  $M = 2.69$ ,  $SD = 1.17$ ).

### Covariates

*Perceived economic pressures.* Same as in Study 1a (three items,  $\alpha = .73$ ,  $M = 3.65$ ,  $SD = 0.90$ ).

*Materialism.* Same as in Study 1a (three items,  $\alpha = .76$ ,  $M = 4.75$ ,  $SD = 1.33$ ).

*Trait self-control.* Participants completed the Brief Self-Control Scale (Tangney et al., 2004), which focuses on the behavioral aspects of self-control, such as breaking bad habits or persisting on tasks at a general trait level. Sample items include, “I am good at resisting temptation,” “I refuse things that are bad for me,” and “I have a hard time breaking bad habits” on a scale from 1 = *not at all like me* to 7 = *very much like me*. Items were reverse-scored and then averaged to create a composite measure (13 items,  $\alpha = .83$ ,  $M = 4.09$ ,  $SD = 0.89$ ).

*Impulsivity.* Same as in Study 3 (three items,  $\alpha = .77$ ,  $M = 2.24$ ,  $SD = 0.52$ ).

*Causal uncertainty.* Participants completed items from the Causal Uncertainty Scale, which measures individual differences in people’s uncertainty about cause and effect relationships in the world (Weary & Edwards, 1994). Due to time and space constraints, we selected the five highest factor-loading

items from the original 14-item scale to present to participants. Sample items include, “I do not understand what causes most of the good things that happen to me” and “When bad things happen, I generally do not know why” on a scale from 1 = *strongly disagree* to 7 = *strongly agree* (five items,  $\alpha = .86$ ,  $M = 3.86$ ,  $SD = 1.15$ ).

*External contingencies of self-worth.* To measure the degree to which individuals based their self-worth on externally dependent sources of self-esteem, participants responded to items from the CSW scale assessing *Appearance CSW* (e.g., “When I think I look attractive, I feel good about myself,” five items,  $\alpha = .74$ ,  $M = 4.92$ ,  $SD = 0.95$ ), *Competition CSW* (e.g., “Knowing that I am better than others on a task raises my self-esteem,” five items,  $\alpha = .87$ ,  $M = 4.86$ ,  $SD = 1.04$ ), *Others’ approval CSW* (e.g., “I don’t care what other people think of me,” reverse-scored, five items,  $\alpha = .78$ ,  $M = 3.84$ ,  $SD = 1.10$ ), and *Academic CSW* (e.g., “I feel better about myself when I know I’m doing well academically,” five items,  $\alpha = .86$ ,  $M = 5.20$ ,  $SD = 1.04$ ).

*Demographics.* Same as in Study 1a (*Mdn* income = US\$75,000–US\$99,999).

### Results

*Testing the vulnerability hypothesis.* Table 8 shows zero-order correlations among the study variables. For our primary analyses, we conducted a series of hierarchical multiple regression analyses. At Step 1 of the regression model, we entered the covariates of gender, age, income, perceived economic pressures, materialism, self-control, impulsivity, causal uncertainty, and external CSWs (i.e., Appearance, Competition, Others’ Approval, and Academic CSW). At Step 2, we entered centered scores for FCSW, beliefs about Spending Implies Wealth (SIW), and Pressure to Spend Money to Display Wealth; at Step 3, we entered the two-way interactions between FCSW and these latter two beliefs.

Table 9 reports the results of the analyses. Consistent with the vulnerability hypothesis, higher FCSW was related to more financial motivational conflict, even after controlling for all other variables. There were no significant main effects of SIW beliefs, pressure to spend money to display wealth, or their interactions with FCSW in predicting financial motivational conflict.

For compulsive buying, there were significant main effects of FCSW and pressure to spend money to display wealth, such that higher scores on these variables predicted more compulsive buying (see Table 9). These effects were qualified by a significant FCSW  $\times$  SIW Beliefs interaction; contrary to expectations, simple effect tests revealed that among participants who did *not* highly base their self-worth on financial success ( $-1 SD$ ), those who more strongly endorsed SIW beliefs were more likely to engage in compulsive buying,  $B = .20$ ,  $p = .015$ , 95% CI [.041,

**Table 8.** Zero-Order Correlations Among Study Variables (Study 4).

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Age	—																
2. Household income	.04	—															
3. Economic pressures	-.02	-.16***	—														
4. Materialism	.07	.06	-.10	—													
5. Self-control	-.12*	.03	-.23***	-.30***	—												
6. Impulsivity	-.08	-.07	.24***	.11*	-.70***	—											
7. Causal uncertainty	-.04	-.05	.22***	.22***	-.44***	.41***	—										
8. Appearance CSW	.06	.10*	-.13**	.32***	-.17***	-.01	.14**	—									
9. Competition CSW	-.05	.10*	-.13**	.38***	-.22***	.06	.20***	.39***	—								
10. Others' approval CSW	-.03	.08	.07	.11*	-.23***	.16***	.18***	.28***	.07	—							
11. Academic CSW	-.02	-.10*	-.17***	.27***	-.06	-.14**	.11*	.47***	.44***	.20***	—						
12. SiW beliefs	.00	-.06	.25***	.10*	-.15**	.18***	.28***	-.26***	.09*	.11*	-.17***	—					
13. Pressure to spend	.05	-.01	.26***	.18***	-.23***	.19***	.31***	-.11*	.12**	.19***	-.13**	.66***	—				
14. FCSW	-.05	-.01	-.01	.40***	-.25***	.08	.12**	.26***	.35***	.14**	.34***	-.00	.14**	—			
15. Financial motivational conflict	-.04	-.04	-.01	.32***	-.25***	.09	.21***	.41***	.28***	.18***	.37***	-.08	.01	.33***	—		
16. Compulsive buying	.01	-.11*	.43***	.13**	-.42***	.33***	.42***	.18***	.17***	.25***	.13**	.27***	.36***	.27***	.39***	—	
17. Distress/impairment from excessive buying					-.31***	.23***	.29***	-.02	.02	.15**	-.06	.32***	.41***	.21***	.31***	.41***	—

Note. SiW = Spending Implies Wealth beliefs. Pressure to spend = Pressure to spend money to display one's wealth to others. CSW = contingent self-worth; FCSW = Financial contingency of self-worth. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

.370]. Among those with higher FCSW (+1 *SD*), SIW beliefs were unrelated to compulsive buying,  $B = .01, p = .833, 95\% \text{ CI } [-.10, .13]$ . In addition, among people with lower SIW beliefs, higher FCSW predicted more compulsive buying,  $B = .22, p = .001, 95\% \text{ CI } [.09, .36]$ . For those with higher SIW beliefs, FCSW was unrelated to compulsive buying,  $B = .01, p = .866, 95\% \text{ CI } [-.13, .15]$ . The  $\text{FCSW} \times \text{Pressure to Spend Money}$  interaction was not significant in predicting any of the outcome measures (see Table 9).

For distress/impairment from excessive buying, there were significant main effects of FCSW and pressure to spend money, such that higher scores on these variables were related to greater emotional distress/impairment from buying things. These effects were qualified by a significant  $\text{FCSW} \times \text{SIW beliefs}$  interaction such that among participants with lower FCSW, higher SIW beliefs predicted more distress/impairment from excessive buying,  $B = .40, p < .001, 95\% \text{ CI } [.17, .62]$ . Among those with higher FCSW, SIW beliefs was unrelated to distress/impairment from excessive buying,  $B = -.07, p = .400, 95\% \text{ CI } [-.23, .09]$ . In addition, among people with lower SIW beliefs, higher FCSW predicted more distress/impairment,  $B = .43, p < .001, 95\% \text{ CI } [.25, .62]$ . For those with higher SIW beliefs, FCSW was unrelated to distress/impairment,  $B = -.08, p = .429, 95\% \text{ CI } [-.27, .11]$ . The  $\text{FCSW} \times \text{Pressure to Spend Money}$  interaction was not significant for distress/impairment (see Table 9).

*Financial motivational conflict as a mediator.* Consistent with our previous studies, we next tested whether financial motivational conflict mediated the relationship between (a) FCSW and compulsive buying and (b) FCSW and distress/impairment from making excessive purchases. We used Hayes's (2018) PROCESS macro (Model 4) in which we entered FCSW as the predictor variable (X), Compulsive Buying Intentions as the outcome variable (Y), and financial motivational conflict as the mediator, with gender, age, income, economic pressures, materialism, self-control, impulsivity, causal uncertainty, and external CSWs (appearance, competition, others' approval, academic CSWs) as covariates.

Results are summarized in Figure 4. The more participants based their self-worth on financial success, the more motivational conflict they experienced between wanting to spend and not spend their money, which predicted more compulsive buying. The indirect effect was also significant, indicating that financial motivational conflict mediated the relationship between FCSW and compulsive buying,  $B = .03, 95\% \text{ CI } [.00, .06]$ .

We next tested whether financial motivational conflict mediated the link between FCSW and distress/impairment from making excessive purchases (see Figure 5). The more participants based their self-worth on financial success, the more financial motivational conflict they experienced, which

predicted more distress/impairment from making excessive purchases. The indirect effect was also significant, indicating that motivational conflict mediated the relationship between FCSW and distress/impairment,  $B = .05, 95\% \text{ CI } [.01, .10]$ .

## Discussion

Consistent with our previous studies, Study 4 found that FCSW predicted more motivational conflict between the desire to spend and not spend money, which predicted more compulsive buying and distress/impairment in one's life from making excessive purchases. Notably, these findings emerged even after controlling for additional covariates, such as individual differences in trait self-control, causal uncertainty, and other external CSWs.<sup>1</sup> In addition, pressure to spend money to display one's wealth to others—a measure that we developed using face-valid items—predicted more compulsive buying and distress/impairment from making excessive purchases, suggesting that this novel measure has some degree of predictive validity.

Nevertheless, contrary to expectations, neither SIW beliefs nor pressure to spend money to display one's wealth to others predicted financial motivational conflict, nor did these variables interact with FCSW to predict financial motivational conflict. Instead, only participants who more strongly based their self-worth on financial success experienced more conflict between the desire to spend versus not spend their money. Although there were significant interactions between FCSW and SIW beliefs predicting compulsive buying and distress/impairment from excessive buying, the findings revealed the opposite of what one might expect.

Specifically, participants who did not highly base their self-worth on financial success but endorsed SIW beliefs showed a greater tendency to engage in compulsive buying and to experience distress/impairment from excessive buying. In addition, among participants who did not strongly believe in SIW, basing self-worth more strongly on financial success predicted more compulsive buying and distress/impairment. Together, these findings suggest that having FCSW or SIW beliefs are related to more compulsive buying and distress/impairment from excessive buying, while endorsing both of these beliefs simultaneously does not seem to matter in predicting the outcomes. In addition, pressure to spend money to display one's wealth to others also predicted these outcomes, independent of FCSW or SIW beliefs.

Given that neither SIW beliefs nor pressure to spend money to display one's wealth interacted with FCSW to predict financial motivational conflict, why do people with higher FCSW experience this conflict? One explanation is psychological reactance. According to reactance theory, individuals experience psychological reactance when they perceive their autonomy to be threatened (J. W. Brehm, 1966). For example, people are likely to choose forbidden options

**Table 9.** Results of Hierarchical Regression Analyses Predicting Dependent Measures (Study 4, College Student Sample).

	Financial motivational conflict	Compulsive buying	Emotional distress/ impairment from buying
	B at Step 1; Step 2; Step 3	B at Step 1; Step 2; Step 3	B at Step 1; Step 2; Step 3
	[95% CI at each step]	[95% CI at each step]	[95% CI at each step]
Gender	.32***; .32***; .30*** [.17, .47]; [.17, .46]; [.15, .45]	.60***; .59***; .58*** [.42, .79]; [.41, .77]; [.40, .76]	.48***; .47***; .42*** [.22, .74]; [.22, .72]; [.18, .67]
Age	.01; .00; -.00 [-.05, .07]; [-.05, .06]; [-.06, .05]	.04; .04; .04 [-.02, .11]; [-.03, .11]; [-.03, .10]	.06; .06; .05 [-.03, .16]; [-.04, .15]; [-.04, .14]
Household income	-.02; -.01; -.02 [-.03, .00]; [-.03, .00]; [-.03, .00]	.00; .01; .01 [-.02, .03]; [-.01, .03]; [-.01, .03]	-.01; -.00; -.01 [-.05, .02]; [-.03, .03]; [-.04, .02]
Economic pressures	.01; .01; .01 [-.07, .09]; [-.07, .10]; [-.08, .09]	.15**; .10*; .10* [.05, .25]; [.00, .20]; [.00, .20]	.56***; .48***; .47*** [.42, .71]; [.34, .62]; [.34, .61]
Materialism	.07*; .05; .05 [.01, .13]; [-.01, .12]; [-.01, .11]	.13***; .07*; .07 [.06, .20]; [.00, .15]; [-.00, .15]	.11*; .01; .01 [.01, .21]; [-.09, .12]; [-.09, .11]
Self-control	-.17**; -.15*; -.15* [-.29, .05]; [-.27, .03]; [-.27, -.03]	-.28***; -.25***; -.26*** [-.43, -.13]; [-.40, -.11]; [-.40, -.11]	-.33***; -.27**; -.28 [-.54, -.12]; [-.47, -.07]; [-.47, -.08]
Impulsivity	-.06; -.06; -.08 [-.26, .14]; [-.26, .13]; [-.27, .12]	.07; .10; .09 [-.18, .31]; [-.14, .34]; [-.15, .33]	-.16; -.10; -.13 [-.51, .19]; [-.43, .23]; [-.45, .20]
Causal uncertainty	.03; .05; .04 [-.04, .10]; [-.02, .12]; [-.03, .12]	.19***; .15***; .16*** [.10, .27]; [.06, .23]; [.07, .24]	.15*; .07; .10 [.03, .27]; [-.04, .19]; [-.02, .21]
Appearance CSW	1.18***; .16***; .16*** [.09, .27]; [.07, .25]; [.07, .25]	-.02; .04; .03 [-.13, .08]; [-.07, .15]; [-.08, .14]	-.11; -.00; -.03 [-.26, .05]; [-.16, .15]; [-.18, .12]
Competition CSW	.03; .03; .02 [-.05, .11]; [-.06, .11]; [-.06, .10]	.05; -.01; -.02 [-.05, .15]; [-.12, .09]; [-.12, .09]	.02; -.09; -.10 [-.13, .16]; [-.23, .05]; [-.24, .04]
Others' approval CSW	.02; .02; .01 [-.05, .08]; [-.05, .09]; [-.06, .08]	.11*; .06; .04 [.02, .19]; [-.02, .14]; [-.04, .12]	.10; .02; -.02 [-.02, .22]; [-.10, .13]; [-.14, .09]
Academic CSW	.14***; .11*; .14** [.06, .22]; [.03, .20]; [.05, .22]	-.01; .01; .02 [-.11, .09]; [-.09, .11]; [-.09, .12]	-.09; -.05; -.02 [-.23, .06]; [-.19, .09]; [-.16, .12]
FCSW	.11**; .09* [.03, .18]; [.01, .16]	.13**; .12* [.04, .22]; [.03, .21]	.21**; .18** [.08, .34]; [.05, .30]
Spending Implies Wealth (SIW) beliefs	-.03; -.04 [-.12, .05]; [-.13, .05]	.08; .11* [-.02, .18]; [.00, .22]	.10; .16* [-.04, .23]; [.02, .31]
Pressure to spend to display one's wealth	-.01; .02 [-.08, .06]; [-.06, .10]	.12**; .09† [.03, .20]; [-.00, .19]	.23***; .19** [.11, .35]; [.06, .32]
FCSW × SIW beliefs	-.03 [-.10, .04]	-.09* [-.18, -.00]	-.22*** [-.34, -.10]
FCSW × Pressure to spend	-.05 [-.11, .01]	.03 [-.04, .11]	.05 [-.06, .15]
	Step 1 R <sup>2</sup> = .30 F(12, 413) = 14.55*** Step 2 ΔR <sup>2</sup> = .01 ΔF(3, 410) = 3.03* Step 3 ΔR <sup>2</sup> = .02 ΔF(2, 408) = 4.82**	Step 1 R <sup>2</sup> = .37 F(12, 413) = 20.28*** Step 2 ΔR <sup>2</sup> = .04 ΔF(3, 410) = 10.30*** Step 3 ΔR <sup>2</sup> = .01 ΔF(2, 408) = 2.39	Step 1 R <sup>2</sup> = .29 F(12, 413) = 13.99*** Step 2 ΔR <sup>2</sup> = .07 ΔF(3, 410) = 16.05*** Step 3 ΔR <sup>2</sup> = .03 ΔF(2, 408) = 8.99***

Note. Bs reflect unstandardized coefficients. CI = confidence interval; FCSW = Financial contingency of self-worth.  
†p = .053. \*p < .05. \*\*p < .01. \*\*\*p < .001.

in response to feeling restricted in their autonomy and sense of freedom ( S.Brehm & S.Brehm, 1981; Wicklund, 1974).

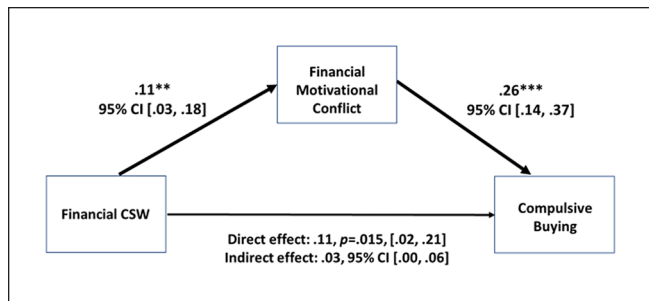
Applying these ideas to the present study, people with higher FCSW may be more likely to experience financial motivational conflict and engage in compulsive buying because they are reacting against feeling psychologically controlled about not being able to spend their money freely. That is, it seems plausible that people with FCSW may compulsively spend money to validate their sense of autonomy. Indeed, past research has shown that people with higher FCSW feel less autonomy in their lives in general, especially after being reminded of a financial stressor in their life (Park et al., 2017). Thus, it could be the case that individuals with higher FCSW are more susceptible to feeling tension between wanting to spend versus not spend their money, because they feel restricted in their ability to spend their money freely in

the first place, and may therefore respond to this underlying experience of psychological reactance by feeling motivational conflict and engaging in compulsive buying. Put another way, people with higher FCSW may be prone to compulsive buying because they view buying new things as forbidden, thereby increasing the attractiveness of this behavior and amplifying their experience of financial motivational conflict.

### General Discussion

Across five studies, we found support for the idea that the more people based their self-esteem on financial success, the more they reported engaging in compulsive buying and experiencing distress and impairment in their lives from making excessive purchases (Study 1a and 1b). Study 2

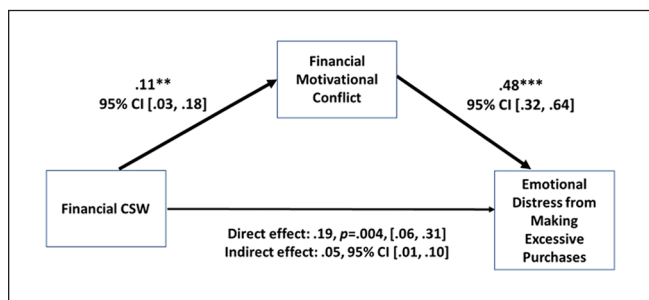




**Figure 4.** Results of mediation analysis for Study 4 predicting compulsive buying.

Note. Paths reflect unstandardized beta coefficients. Bolded paths depict the significant indirect effect from Financial CSW to compulsive buying controlling for gender, age, income, perceived economic pressures, materialism, self-control, impulsivity, causal uncertainty, and other external CSWs. CSW = contingent self-worth.

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



**Figure 5.** Results of mediation analysis for Study 4 predicting emotional distress from making excessive purchases.

Note. Paths reflect unstandardized beta coefficients. Bolded paths depict the significant indirect effect from Financial CSW to emotional distress controlling for gender, age, income, perceived economic pressures, materialism, self-control, impulsivity, causal uncertainty, and other external CSWs. CSW = contingent self-worth.

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

revealed a potential explanation for these findings: people who base their self-worth on financial success feel heightened motivational conflict between wanting to spend money versus not spend their money. While spending money may be a marker of wealth, not spending money better serves the goal to accumulate wealth. Feeling like one has money to spend in the here-and-now may serve to reduce tension or discomfort from motivational conflict and push those with higher FCSW to engage in compulsive buying, rather than acting in ways that favor distal outcomes, such as accruing money over time.

In Study 3, we conceptually replicated Studies 1a, 1b, and 2 using a 5-week diary design. Specifically, the more people based their self-worth on financial success in a given week, the more motivational conflict they experienced that week. Increased motivational conflict, in turn, was related to more compulsive buying and more negative affect and emotional

distress from making excessive purchases that week. Importantly, findings emerged across studies even after accounting for demographics, materialism, and perceived economic pressures. In addition, Study 3 found that FCSW was uniquely related to outcomes even after controlling for impulsivity.

Finally, in Study 4 we again replicated the finding that people who base their self-worth on financial success are more likely to experience financial motivational conflict and in turn, more compulsive buying and distress/impairment in one’s life from making excessive purchases. This time, findings emerged even after controlling for additional covariates, such as individual differences in trait self-control, causal uncertainty, and other external CSWs.

### Connections to Existing Literature

Much of the literature to date suggests that compulsive buying is a defensive, compensatory strategy used to relieve feelings of anxiety, regulate mood, or reduce self-discrepancies (Dittmar, 2005a; Dittmar et al., 2007; DeSarbo & Edwards, 1996; Faber & Vohs, 2011). The present studies add to this literature by offering two key contributions. First, we find that—above and beyond the influence of demographics, materialistic values, perceived economic pressures, and impulsivity—the more individuals based their self-worth on financial success, the more likely they were to engage in compulsive buying.

Moreover, we shed light on the subjective experience of having FCSW, in that tendencies to compulsively spend may stem from motivational conflicts that people experience related to money and finances. Paradoxically, the more individuals place importance on money as a source of self-esteem, the more conflicted they feel about whether to spend or not spend. On one hand, spending money depletes one’s assets and interferes with the long-term goal of accumulating wealth; on the other hand, motivational pressures in the moment may lead people with high FCSW to spend. Thus, the experience of motivational conflict in spending contexts may lead people with higher FCSW to be more likely to engage in compulsive buying, even if it is ultimately self-defeating and counterproductive.

The current studies also add to a growing body of literature on the negative consequences of FCSW. Previous research found that the more people based their self-worth on being financially successful, the more likely they were to experience negative outcomes, such as increased financial hassles, stress, anxiety, and feeling less autonomy and control over one’s life (Park et al., 2017). On an interpersonal level, basing self-worth on money predicts spending less time with family and friends, feeling more lonely and socially disconnected from others (Ward et al., 2020), having more financial arguments and disagreements with one’s partner, and feeling less satisfied and supported in romantic

relationships (Ward et al., 2021). The present work adds to this literature by demonstrating the impact of FCSW on compulsive buying and emotional experiences. Notably, our findings suggest that people with FCSW experience motivational conflict in spending contexts; doing so, however, increases the likelihood of compulsive spending, the latter of which depletes their assets, which may further activate FCSW tendencies.

Finally, the current research connects to past literature suggesting that financial success does not always translate to greater well-being. For example, researchers found a lack of a clear relationship between financial status and subjective well-being due to sociocultural and psychological reasons, such as growing wealth disparity and an escalation of expectations in which individuals become habituated to their current wealth and continually strive for more and more financial rewards (Csikszentmihalyi, 1999). Although material rewards are momentarily satisfying, they cannot replace other nonmaterial rewards that come from family life and friendship, for example, which also contribute to well-being (Csikszentmihalyi, 1999). Indeed, while income and financial rewards are related to well-being to some extent, it may be more important for individuals and society to focus their efforts on building positive psychological resources, such as autonomy, hope, and optimism, rather than prioritizing material wealth (Seligman & Csikszentmihalyi, 2000).

An unexpected finding from the present research is that neither beliefs about spending implying wealth or feeling pressure to spend money to display one's wealth to others amplified high FCSW people's experience of financial motivational conflict or compulsive buying. In fact, beliefs about spending implying wealth were related to effects that were opposite of what was expected, with lower SIW beliefs being associated with more compulsive buying and distress/impairment. Alternatively, it seems plausible that individuals with high FCSW may be more likely to experience reactance motivation in which their desire to save is overpowered by their momentary impulse to spend, as doing so increases feelings of control and autonomy.

While we did not assess reactance in the present study, reactance researchers have long argued that this construct cannot be assessed directly (J. W. Brehm, 1966; S. S. Brehm & Brehm, 1981). For example, Brehm and Brehm (1981) suggested that "reactance has the status of an intervening, hypothetical variable . . . we cannot measure reactance directly, but hypothesizing its existence allows us to predict a variety of behavioral effects" (p. 37). Although some researchers have developed measures of reactance (Hong, 1992; Hong & Page, 1989) with items such as, "I become angry when my freedom of choice is restricted" (Hong & Faedda, 1996), other researchers have questioned trait measures of reactance for their predictive validity (Silvia, 2006). Moreover, these assessments are better conceptualized as an individual's trait proneness to reactance, rather than the context-specific reactance that we suggest individuals with high

FCSW experience in spending contexts. We are not suggesting that people with higher FCSW are more reactive in general; instead, we think that spending contexts might prompt high FCSW to become reactive.

And while some researchers have suggested that reactance can be assessed in terms of negative affect (i.e., feeling irritated, angry, annoyed, aggravated) and cognitions (i.e., disagreeing with attitudinal statements) (Dillard & Shen, 2005), such measures may not be appropriate for the present research given that goal conflicts prompt negative affective experiences. That is, any finding demonstrating "reactance" could also be interpreted as an alternative assessment of "conflict," thus leaving the work open to the criticism that we are using the same variable as both the outcome and the mediator. Thus, the assessment of reactance as a mechanism of an effect is not as straightforward as one might initially expect. To assess context-specific reactance, one would need to develop a paradigm that reflects a spending context that reliably makes people with high FCSW feel conflicted.

### *Limits on Generality*

The present studies provide evidence that FCSW is a vulnerability factor that makes people susceptible to both compulsive spending and experiencing distress and impairment from excessively buying things. However, as the current studies were correlational in nature, we cannot make causal claims regarding these relationships. We theorize that people with Financial CSW experience increased goal conflict between spending and not spending money which in turn, results in increased compulsive spending as well as distress and impairment from these behaviors. We cannot rule out that it may instead be the case that Financial CSW directly predicts compulsive spending and distress/impairment related to compulsive spending simultaneously. The conflicting emotional "high" of compulsive spending with the "low" of associated distress/impairment may in turn, result in increased perceptions of motivational conflict between spending and not spending.

Likewise, the outcomes we focused on in the present work were relatively limited. Although financial motivational conflict and resulting feelings of distress could lead to other behaviors that involve a breakdown in self-regulation, we focused on compulsive buying in the present studies because this domain seemed directly relevant to FCSW and the desire to spend versus not spend. Moreover, compulsive buying sets up the possibility of a self-sustaining downward spiral; this compensatory behavior may satisfy people's FCSW in the short term but exacerbate FCSW in the long-term, which other behaviors may not readily reveal. Future studies could investigate this question empirically by examining the effects of FCSW and financial motivational conflict in predicting other types of dysregulated behaviors, such as gambling or binge eating. FCSW and financial motivational conflict might increase people's

vulnerability to financial-related behaviors such as gambling, as this behavior also involves perceived tension between spending versus not spending money, whereas binge eating might be less relevant to this particular internal conflict.

Furthermore, the present studies focused on Financial CSW as a predictor of increased financial motivational conflict and downstream outcomes. While the construct of materialism emphasizes having money and material possessions as the end-goal (Dittmar et al., 2014), Financial CSW reflects striving for a sense of personal worth and value from achieving financial success. Thus, while individuals may endorse materialistic values for various reasons, those with higher Financial CSW are primarily motivated to pursue financial success to boost their self-esteem. And while Financial CSW and materialism both reflect a desire for financial success that could presumably lead to similar outcomes, the current studies and past research suggest that Financial CSW predicts outcomes independent of materialism (Park et al., 2017; Ward et al., 2020). For example, compared with Financial CSW, materialism is not consistently related to lowered autonomy (Ward et al., 2020), which we think may have activated financial motivational conflict and psychological reactivity in the present research.

Finally, participants in the present studies were all adults living in the United States, so the links found between Financial CSW, financial motivational conflict, compulsive buying, and distress/impairment may not generalize to individuals from other cultural backgrounds. For example, research suggests that cultures differ in their emphasis on individualism versus collectivism and on hierarchy (vertical orientation) versus equality (horizontal orientation; Singelis, 1994; Torelli & Shavitt, 2010). While vertical-individualistic cultures (e.g., the United States) emphasize the pursuit of personal status and standing out relative to others, vertical-collectivist cultures (e.g., Japan, Korea) value in-group goals over personal goals. Horizontal-collectivist cultures (e.g., Brazil), by contrast, value interdependence and sociability, rather than status or self-expression.

These different cultural values may determine what people compulsively spend their money on, which could have implications for feelings of distress/impairment. For horizontal collectivists, power is related to engaging in prosocial spending, whereas for vertical individualists, power is associated with spending to gain status and prestige (Shavitt & Cho, 2016). Although compulsive spending may typically lead to distress/impairment, it is also possible that it might reduce distress to the extent that people purchase goods that are consistent with their cultural orientation. For example, people living in collectivist cultures may be more likely to spend money on items that benefit their family and community—behavior that may strengthen social connections and thereby reduce distress and impairment, compared with buying things to elevate one's status compared with others.

### *Future Directions: Potential Interventions for Reducing Compulsive Buying*

An important direction for future research is to examine ways to reduce FCSW and compulsive spending. One way to reduce the tendency to derive self-worth from money is to downplay the expected benefits of financial success. For example, in one study, participants were assigned to read a bogus news article that suggested that having a lot of money was related to greater happiness and life outcomes, or that having a lot of money did not improve life outcomes (Ward et al., 2021).

Participants who read that money predicted better life outcomes expected to reap more hedonic and psychological benefits of financial success, which was related to basing their current self-worth more in this domain (Ward et al., 2021). However, participants who read that money did not enhance people's life outcomes were less likely to expect benefits of financial success or to base their current self-worth on money. Thus, these findings suggest that one way to momentarily shift people's contingencies of self-worth may be to deemphasize the expected benefits of success in domains of contingency. By minimizing the benefits, people may be less likely to base their self-esteem on money, which could reduce their vulnerability to experiencing financial goal conflict and engaging in compulsive buying.

It may also be the case that individuals with FCSW have poor affective forecasting; they believe that spending money and buying things will bring them greater happiness when in fact, it does not. Accordingly, individuals could be prompted to engage in more accurate forecasting in which they focus on how ashamed, guilty, or regretful they would feel if they were to engage in compulsive buying, and these thoughts and feelings regarding the negative consequences of compulsive spending might serve to inhibit them from enacting this behavior in the future. Indeed, research suggests that when individuals think about their future self in vivid and realistic terms, they are more likely to make choices in the here-and-now that benefit their distant, future self and goals (Hershfield, 2011).

### **Conclusion**

The present research shows that the more people base their self-worth on being financially successful, the more likely they are to engage in compulsive spending and to experience greater emotional distress and impairment in their lives from engaging in this self-defeating behavior. Importantly, the experience of financial motivational conflict—of competing desires to spend versus not spend one's money—is a key mechanism underlying why FCSW is related to more compulsive buying. Future research could examine how strategies such as reducing CSWs or engaging in more accurate affective forecasting may counteract the tendency for

individuals with FCSW to compulsively spend, thereby reducing its negatively associated outcomes.

### 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.

### ORCID iDs

Lora Park  <https://orcid.org/0000-0002-2779-3034>

Deborah E. Ward  <https://orcid.org/0000-0002-2574-4861>

Kentaro Fujita  <https://orcid.org/0000-0002-3527-6002>

### Supplemental Material

Supplemental material is available online with this article.

### Note

1. We did not find a significant FCSW  $\times$  Trait self-control interaction in predicting compulsive buying in the present study,  $B = .04$ ,  $p = .330$ , 95% confidence interval (CI) =  $[-.04, .13]$ . Successful self-control requires both the identification and resolution of motivational conflicts (e.g., Myrseth & Fishbach, 2009). Although research tends to focus more on the latter, many self-control failures occur because people do not recognize that a situation presents a potentially problematic behavior (e.g., Vale et al., 2008). The compulsive spending behavior that we studied may reflect a self-control failure that results from a failure of identification, rather than resolution. Trait self-control may not capture this, as it may only reflect people's judgment of their ability to resolve rather than identify self-control conflicts.

### References

- Andrews, M. (2021, May 29). *Reassess your spending and saving*. <https://www.nytimes.com/2021/05/29/at-home/reassess-your-spending-and-saving.html>
- Brehm, J. W. (1966). *A theory of psychological reactance*. Academic Press.
- Brehm, S. S., & Brehm, J. W. (1981). *Psychological reactance: A theory of freedom and control*. Academic Press.
- Browne, M. W., & Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociological Methods & Research*, 21(2), 230–258.
- Conger, R. D., Reuter, M. A., & Elder, G. H. (1999). Couple resilience to economic pressure. *Journal of Personality and Social Psychology*, 76, 54–71.
- Crocker, J., & Park, L. E. (2004). The costly pursuit of self-esteem. *Psychological Bulletin*, 130, 392–414.
- Csikszentmihalyi, M. (1999). If we are so rich, why aren't we happy? *American Psychologist*, 54, 821–827.
- DeSarbo, W. S., & Edwards, E. (1996). Typologies of compulsive buying behavior: A constrained clusterwise regression approach. *Journal of Consumer Psychology*, 5, 231–262.
- Dillard, J. P., & Shen, L. (2005). On the nature of reactance and its role in persuasive health communication. *Communication Monographs*, 72(2), 144–168.
- Dittmar, H. (2004). Understanding and diagnosing compulsive buying. In R. H. Coombs (Ed.), *Handbook of addictive disorders: A practical guide to diagnosis and treatment* (pp. 411–450). John Wiley.
- Dittmar, H. (2005a). A new look at “compulsive buying”: Self-discrepancies and materialistic values as predictors of compulsive buying tendency. *Journal of Social and Clinical Psychology*, 24(6), 832–859.
- Dittmar, H. (2005b). Compulsive buying—a growing concern? An examination of gender, age, and endorsement of materialistic values as predictors. *British Journal of Psychology*, 96, 467–491.
- Dittmar, H., Bond, R., Hurst, M., & Kasser, T. (2014). The relationship between materialism and personal well-being: A meta-analysis. *Journal of Personality and Social Psychology*, 107, 879–924.
- Dittmar, H., & Drury, J. (2000). Self—image—is it in the bag? A qualitative comparison between ordinary and excessive consumers. *Journal of Economic Psychology*, 21, 109–142.
- Dittmar, H., Long, K., & Bond, R. (2007). When a better self is only a button click away: Associations between materialistic values, emotional and identity-related buying motives, and compulsive buying tendency online. *Journal of Social and Clinical Psychology*, 26(3), 334–361.
- Edwards, E. A. (1993). Development of a new scale for measuring compulsive buying behavior. *Financial Counseling and Planning*, 4, 67–84.
- Faber, R. J. (2004). Self-control and compulsive buying. In T. Kasser & A. D. Kanner (Eds.), *Psychology and consumer culture: The struggle for a good life in a materialistic world* (pp. 169–187). American Psychological Association.
- Faber, R. J., & Christenson, G. A. (1996). In the mood to buy: Differences in the mood states experienced by compulsive buyers and other consumers. *Psychology and Marketing*, 13, 803–820.
- Faber, R. J., & O'Guinn, T. C. (1992). A clinical screener for compulsive buying. *Journal of Consumer Research*, 19, 459–469.
- Faber, R.J., & Vohs, K.D. (2011) Self-regulation and spending: Evidence from impulsive and compulsive buying. In K. D. Vohs & R. F. Baumeister (Eds.), *Handbook of self-regulation: Research, theory, and applications* (2nd ed., pp. 537–550). The Guilford Press.
- Geldhof, G. J., Preacher, K. J., & Zyphur, M. J. (2014). Reliability estimation in a multilevel confirmatory factor analysis framework. *Psychological Methods*, 19, 72–91.
- Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. The Guilford Press.
- Hershfield, H. E. (2011). Future self-continuity: How conceptions of the future self transform intertemporal choice. *Annals of the New York Academy of Sciences*, 1235, 30–43.
- Hong, S. M. (1992). Hong's psychological reactance scale: A further factor analytic validation. *Psychological Reports*, 70, 512–514.
- Hong, S. M., & Faedda, S. (1996). Refinement of the Hong psychological reactance scale. *Educational and Psychological Measurement*, 56, 173–182.



- Hong, S. M., & Page, S. (1989). A psychological reactance scale: Development, factor structure and reliability. *Psychological Reports, 64*, 1323–1326.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*(1), 1–55.
- Kappes, H. B., Gladstone, J. J., & Hershfield, H. E. (2021). Beliefs about whether spending implies wealth. *Journal of Consumer Research, 48*(1), 1–21.
- Kasser, T., Cohn, S., Kanner, A. D., & Ryan, R. M. (2007). Some costs of American corporate capitalism: A psychological exploration of value and goal conflicts. *Psychological Inquiry, 18*(1), 1–22.
- Kenny, D. A., Korchmaros, J. D., & Bolger, N. (2003). Lower level mediation in multilevel models. *Psychological Methods, 8*(2), 115–128.
- Kleiman, T., & Hassin, R. R. (2011). Non-conscious goal conflicts. *Journal of Experimental Social Psychology, 47*(3), 521–532.
- Klein, A. G., & Moosbrugger, H. (2000). Maximum likelihood estimation of latent interaction effects with the LMS method. *Psychometrika, 65*(4), 457–474.
- Klein, A. G., & Muthén, B. O. (2007). Quasi-maximum likelihood estimation of structural equation models with multiple interaction and quadratic effects. *Multivariate Behavioral Research, 42*(4), 647–673.
- Knee, C. R., Canevello, A., Bush, A. L., & Cook, A. (2008). Relationship-contingent self-esteem and the ups and downs of romantic relationships. *Journal of Personality and Social Psychology, 95*(3), 608–627.
- Koran, L. M., Faber, R. J., Aboujaoude, E., Large, M. D., & Serpe, R. T. (2006). Estimated prevalence of compulsive buying behavior in the United States. *The American Journal of Psychiatry, 163*(10), 1806–1812.
- Maas, C. J. M., & Hox, J. J. (2005). Sufficient sample sizes for multilevel modeling. *Methodology, 1*(3), 86–92.
- Maraz, A., Griffiths, M. D., & Demetrovics, Z. (2016). The prevalence of compulsive buying: A meta-analysis. *Addiction (Abingdon, England), 111*(3), 408–419.
- Muthén & Muthén (2017). *Mplus user's guide* (Version 8). [Computer Software]. (Original work published 1998)
- Myrseth, K. O. R., & Fishbach, A. (2009). Self-control: A function of knowing when and how to exercise restraint. *Current Directions in Psychological Science, 18*(4), 247–252.
- Orso, A., & Ferran, L. (2009, March 25). Confessions of a real shopaholic. <https://abcnews.go.com/GMA/JobClub/story?id=7170816&page=1>
- Park, L. E., Crocker, J., & Kiefer, A. K. (2007). Contingencies of self-worth, academic failure, and goal pursuit. *Personality and Social Psychology Bulletin, 33*, 1503–1517.
- Park, L. E., Jung, H., Lee, K. S., Ward, D. E., Piff, P. K., Whillans, A. V., & Naragon-Gainey, K. (2021). Psychological pathways linking income inequality in adolescence to well-being in adulthood. *Self and Identity, 20*(8), 982–1014.
- Park, L. E., Ward, D. E., & Naragon-Gainey, K. (2017). It's all about the money (for some): Consequences of financially contingent self-worth. *Personality and Social Psychology Bulletin, 43*, 601–622.
- Richins, M. L. (2004). The material values scale: Measurement properties and development of a short form. *Journal of Consumer Research, 31*(1), 209–219.
- Rose, J. (2019, February 19). 9 famous people that went bankrupt before they got rich. <https://www.forbes.com/sites/jrose/2019/02/19/9-famous-people-that-went-bankrupt-before-they-were-rich/?sh=3ab11a7041cf>
- Schoemann, A. M., Boulton, A. J., & Short, S. (2017). Determining power and sample size for simple and complex mediation models. *Social Psychological and Personality Science, 8*(4), 379–386.
- Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55*, 5–14.
- Shavitt, S., & Cho, H. (2016). Culture and consumer behavior: The role of horizontal and vertical cultural factors. *Current Opinion in Psychology, 8*, 149–154.
- Silvia, P. J. (2006). A skeptical look at dispositional reactance. *Personality and Individual Differences, 40*, 1291–1297.
- Singelis, T. M. (1994). The measurement of independent and interdependent self-construals. *Personality and Social Psychology Bulletin, 20*(5), 580–591.
- Steinberg, L., Sharp, C., Stanford, M. S., & Tharp, A. T. (2013). New tricks for an old measure: The development of the Barratt Impulsiveness Scale-Brief (BIS-Brief). *Psychological Assessment, 25*(1), 216–226.
- Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of Personality, 72*, 271–322.
- Tolin, D. F., Frost, R. O., & Steketee, G. (2010). A brief interview for assessing compulsive hoarding: The Hoarding Rating Scale-Interview. *Psychiatry Research, 178*, 147–152.
- Torelli, C. J., & Shavitt, S. (2010). Culture and concepts of power. *Journal of Personality and Social Psychology, 99*(4), 703–723.
- Vale, R. C., Pieters, R., & Zeelenberg, M. (2008). Flying under the radar: Perverse package size effects on consumption self-regulation. *Journal of Consumer Research, 35*(3), 380–390.
- Ward, D. E., Park, L. E., Naragon-Gainey, K., Whillans, A. V., & Jung, H. (2020). Can't buy me love (or friendship): Social consequences of financially contingent self-worth. *Personality and Social Psychology Bulletin, 46*, 1665–1681.
- Ward, D. E., Park, L. E., Walsh, C., Naragon-Gainey, K., Paravati, E., & Whillans, A. V. (2021). For the love of money: The influence of financially contingent self-worth in romantic relationships. *Journal of Social and Personal Relationships, 38*(4), 1303–1328.
- Weary, G., & Edwards, J. A. (1994). Individual differences in causal uncertainty. *Journal of Personality and Social Psychology, 67*(2), 308–318.
- Wicklund, R. A. (1974). *Freedom and reactance*. Lawrence Erlbaum.
- Wicklund, R. A., & Gollwitzer, P. M. (1982). *Symbolic self-completion*. Lawrence Erlbaum.