

Spending as Social and Affective Coping (SSAC): Measure Development and Initial Validation

The Counseling Psychologist
1–28

© The Author(s) 2019

Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/0011000019878848

journals.sagepub.com/home/tcp



**Alexander Rice¹, Yunkyoung Loh Garrison¹,
and William Ming Liu^{1,2}**

Abstract

The Spending as Social and Affective Coping (SSAC) scale measures the degree to which people spend money to cope with negative affect and their social environment. An exploratory factor analysis yielded a three-factor model explaining 60.34% of the item variance: Affective Coping, Social Coping, and Spending Impulsivity. A confirmatory factor analysis in a new sample found that a hierarchical model with one primary factor and three secondary factors was superior to one-, two-, three-factor, and bifactor solutions. We found significant correlations between SSAC subscale scores and related scale scores measuring impulsive and compulsive buying, material values, contingent self-esteem, need to belong, and negative mood regulation. Results suggested partial invariance across gender and full invariance across status as a student or professional. We discuss the use of this scale for research on social class and coping, and counseling interventions, advocacy, and education.

Keywords

scale development, impulsive buying, compulsive buying, emotional coping, social connection

¹University of Iowa, Iowa City, IA, USA

²University of Maryland, College Park, MD, USA

Corresponding Author:

Alexander Rice, Preventive Medicine and Biostatistics, Uniformed Services University of the Health Sciences, Bethesda, MD 20814, USA.

Email: alexander.rice.ctr@usuhs.edu

Significance of the Scholarship to the Public

The Spending as Social and Affective The Spending as Social and Affective Coping (SSAC) scale is a new measure of the ways people spend money to cope with difficult emotions and to connect with others in their social environment. The use of this scale could help us better understand how people's coping is shaped by social values around spending, identify when this spending becomes problematic, and explore how this type of spending money might be effected by interventions aimed at helping people cope with their emotions and connect with others.

One method by which counseling psychologists can create change in their clients' lives is by shifting unhealthy coping behaviors (e.g., binge eating, excessive use of social media) into sustainable and fulfilling behaviors (Arnow, Kenardy, & Agras, 1995; Folkman & Moskowitz, 2004; Seepersad, 2004). Spending money to cope with emotional and social distress is one such behavior which has not been well researched. Although reports from the literature suggest that individuals may spend money to increase positive emotions, spending can also serve as a coping mechanism for negative affective states (e.g., boredom, loneliness). Individuals may also spend money to find some sense of social connection (Carver, Scheier, & Weintraub, 1989; Dittmar, 2005).

Although people may use spending as a coping strategy, they may encounter unintended psychological consequences, such as feeling a loss of control, followed by frustration and regret (Baumeister, 2002). Spending-based coping can increase one's financial burden, creating further psychological distress (Pirog & Roberts, 2007). Research also indicates that spending behavior can turn into a more serious problem over time (e.g., compulsive buying), becoming a primary response to negative feelings (Faber & O'Guinn, 1992; O'Guinn & Faber, 1989).

Counseling psychologists need to understand their clients' spending behaviors in the context of other coping strategies. Individuals who have formed materialistic values in response to negative social comparisons may use buying as a primary means of coping to alleviate psychological pain and improve social connection. This may inhibit them from developing healthy coping strategies and exacerbate both emotional pain and a sense of social disconnection (Liu, 2011). Economic deprivation may also make it more difficult to employ healthy coping strategies. Materialistic values are positively correlated with one's relative economic deprivation (Zhang, Tian, Lei, Yu, &

Liu, 2015). By focusing on coping behaviors that are shaped by social class backgrounds and socio-economic contexts, we developed a measure that can be used to expand counseling psychologists' knowledge of how these strategies are socially situated, and how they affect people of different socioeconomic statuses.

Our purpose in the current study was to develop a measure to identify spending behaviors that relate to affective and social coping among adults. This instrument may help counseling psychologists gain insight into the connection between people's spending behaviors and their social as well as emotional experiences. Additionally, the use of the scale may help counseling psychologists understand individuals who participate in coping-focused spending behavior but do not fit the existing criteria of impulsive or compulsive buying. The scale can also help counseling psychologists understand potentially harmful impacts of spending behaviors, including in relation to other coping strategies.

Conceptual Framework: Coping Theory

Coping theory guided us in this research as an overarching conceptual framework. Coping is "the person's constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the person's resources" (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986, p. 993). Some of the most widely used measures to assess coping are the Coping Strategies Inventory (Tobin, Holyrod, & Reynolds, 1984), Coping with Problems Experienced (COPE) inventory (Carver et al., 1989), and Ways of Coping Questionnaire (Folkman & Lazarus, 1988). These measures are focused on overarching domains, such as seeking support or avoidance, which may under-represent more specific coping behaviors. In response, researchers have developed specific scales for measuring coping behaviors, such as emotional eating (Arnow et al., 1995) and alcohol consumption (Martin, Macdonald, Pakula, & Basia, 2014).

Spending is one specific coping behavior that individuals use to manage emotionally challenging experiences or environments (Donnelly, Ksendzova, Howell, Vohs, & Baumeister, 2016; Kellett & Bolton, 2009; Zhou & Gao, 2008). The measurement literature on spending behavior has largely been focused on classifying spending as impulsive and/or compulsive, rather than as a general response to negative affect and social needs (Müller, Mitchell, & De Zwaan, 2015). Measures include the Yale-Brown Obsessive-Compulsive Scale-Shopping Version (Leite, Filomensky, Black, & Silva, 2014), Compulsive Buying Scale (Faber & O'Guinn, 1992), Edwards Compulsive Buying Scale-Revised (Edwards, 1993) and Richmond Compulsive Buying

Scale (Ridgway, Kukar-Kinney, & Monroe, 2008). Other scales that have been employed to assess spending among non-clinical populations, such as the Impulse Buying Tendency Scale (Verplanken & Herabadi, 2001) or Self-Gifting Consumer Behavior Scale (Mortimer, Bougoure, & Fazal-E-Hasan, 2015), include items assessing spending in relation to emotion. However, none of these scales specifically assess spending as a means of coping with affective and social demands. By assessing buying behaviors in relation to coping, our measure provides counseling psychologists with ways to better assess clients' coping skills and to help clients gain a deeper understanding of how their buying behavior relates to their psychological well-being.

According to the cognitive-behavioral model of Kellett and Bolton (2009), compulsive buying is often impulsive and triggered by both environmental cues, such as exposure to shopping environments, and beliefs that buying can relieve negative affect and provide self-definition. For example, buying may occur when people negatively evaluate themselves and feel inadequate in social environments. Spending under this model is intended to repair negative affect and help people feel "more adequate" through purchasing products valued in one's social environment (e.g., certain brands of clothing). This model links spending with affective and social coping, and is supported by evidence in compulsive (Dittmar, 2005) and impulsive buying (Silvera, Lavack, & Kropp, 2008), as well as a link to material values (Dittmar, 2005).

Although hypothesized to result in compulsive buying in some cases, spending as affective and social coping may also lead to negative outcomes among noncompulsive buyers. Materialism has been positively associated with several detrimental outcomes, including depression and uncertainty about self-worth (Frost, Kyrios, McCarthy, & Matthews, 2007), lower happiness (Manchiraju & Son, 2014), negative emotions after purchases (Richins, McKeage, & Najjar, 1992), and lower relationship satisfaction (Roberts & Clement, 2007). Furthermore, Dittmar and Kapur (2011) found that the impact of materialism on well-being was mediated through the desire to project a desired social identity through material goods and the need to control negative emotional states.

Affective Coping

Affective coping refers to individuals' attempts to regulate their internal emotional experiences. Gross (2014) defined emotion regulation as the strategies that people use to increase, decrease, or maintain their emotions. Regulation of negative affect can influence the quality of social interactions, social functioning, and well-being (John & Gross, 2004). Although some forms of affective regulation occur in direct response to a stimulus, others are intended to change affective states that have already taken root (Gross & Thompson, 2007).

Analysis of the association of affect regulation with both compulsive and impulsive buying indicates that spending sometimes serves affective regulation needs (Thompson & Prendergast, 2015). However, negative affective coping may be just one component of these behaviors. For compulsive buyers, spending may primarily increase positive affect, rather than reduce negative affect (Jung & Yi, 2014). Compulsive and impulsive buying measures have also been employed to assess buying-related shame, low self-control, and unplanned spending (Verplanken & Herabadi, 2001). Researchers have also reported that spending reduces negative affect among individuals not classified as compulsive buyers (Thompson & Prendergast, 2015). For example, Faber and Christenson (1996) found changes in mood state in 29.2% of buyers categorized as being noncompulsive.

Social Coping

People's patterns of consumption relate to their intentions to make a good impression (Berger & Heath, 2007). Those with poor social support sometimes compensate by spending money on material belongings highly valued among their desired social group (Wang & Xiao, 2009). Individuals who are socially excluded often use consumption to forge social bonds (Mead, Baumeister, Stillman, Rawn, & Vohs, 2011). Spending to control one's social environment may also reduce social pain, which is a negative affective reaction to exclusion from desired relationships (e.g. shame, loneliness, low-self-esteem, loss; MacDonald & Leary, 2005). People can experience social pain either when they believe they are unworthy of love, or when they cannot count on their relationships with others (Feeney, 2005). Researchers have found that individuals tend to see spending as a means of building social support and alleviating social pain (Chang & Arkin, 2002). Individuals may also spend more on items that they believe will protect against social pain if they view their self-esteem or self-identity as contingent on those possessions (Roberts, Manolis, & Pullig, 2014).

By integrating affective and social coping mechanisms, spending is one method by which people attempt to cope with negative affect, including social pain, and connect with others (Faber & Christenson, 1996). Possessions that allow people to present themselves favorably can give a person a sense of control over social relationships, help build social support, and enhance self-esteem (Zhou & Gao, 2008). Much of this behavior may be impulsive and may result from attempts to avoid emotional distress (Anestis, Selby, Fink & Joiner, 2007). These psychological functions of spending may therefore lead to unplanned and problematic buying behaviors (Carver et al., 1989; Faber & Christenson, 1996).

Current Study

We describe the development of a measure of two psychological functions of spending: Affective coping and social coping. *Spending as affective coping* is operationalized as a spending behavior used to avoid or decrease negative affect. *Spending as social coping* is operationalized as a spending behavior employed to mitigate social pain and increase social connection. Spending as social and affective coping have been linked with impulsive buying through theoretical models, such as that of Kellett & Bolton (2009). Our goals were (a) to develop a scale that measures spending behaviors as a means of social and affective coping; (b) to examine the factor structure, reliability, and validity of the scale scores and the measurement invariance across groups; and (c) to test convergent validity and examine how these forms of coping affect people's spending.

Study I

We created an initial set of items to build the Spending as Social and Affective Coping (SSAC) scale. We conducted an exploratory factor analysis to uncover the underlying factor structure of the items. This analysis also led to further refinement of the scale.

Method

Participants. Our sample consisted of 209 undergraduate students ($M = 19.71$ years old, $SD = 2.73$ years) from a Midwestern university. Most participants were female (77%), European American 89%; Hispanic/Latino 4%; Asian American 3%; African American 2%; Biracial 1%; and Others 1%. We assessed the median monthly income, as it may relate to levels of spending. Median income was \$300 ($M = \413, $SD = \$4,733$) per month. We measured subjective social class using the MacArthur Scale of Subjective Social Class (MSSSC; MacArthur Foundation, 2007). On this scale, participants indicated their perception of social class from 1 to 10, with larger numbers indicating more affluence, higher education, and occupational status. On average, participants reported that their own social class at 5.94 ($SD = 2.03$). Since the MSSSC measures one's relative standing (Rubin et al., 2014), we also measured participants' subjective social class in a contextualized manner, using separate 10-point Likert-type scales, by considering the following contexts: family of origin's social class ($M = 6.35$, $SD = 1.97$); peers' social class ($M = 5.90$, $SD = 1.72$); and likely future social class ($M = 7.88$, $SD = 1.49$).

Item development. We used our literature review on spending, negative affect control, and social connection as a basis for generating items. The authors, two graduate students and one professor from a counseling psychology program, developed 30 reverse and 83 standard-coded items to capture the use of spending to display social status, ameliorate social pain, and regulate affect. We also created items using research from areas related to those that were the focus of the instrument, including materialism and impulsive buying, since research in these areas highlight their connection with spending for affect control and social connection. Items were reviewed by a counseling psychology faculty member who has published extensively in the areas of social class and related coping, behavior, and psychological well-being. All items used the prompt “For the following statements, please select the answer which most applies to you. Where a question refers to spending or buying, it means spending money on yourself or buying things for yourself”. The five possible response options were *strongly disagree*, *disagree*, *neutral*, *agree*, and *strongly agree*.

Procedures. We obtained Human Subjects approval for our study for the host institution. We recruited participants from psychology undergraduate courses; they received class credit for participating. Participants provided informed consent and completed an online survey of their demographic information and responses to the items as described in the following section. We removed participants missing more than 5% of their responses. Fewer than 1% of responses were missing for each item and multiple imputation was used to represent values for missing responses.

Results

We employed an initial exploratory factor analysis using principal axis factoring and Promax rotation to assess the underlying structure of the initial pool of items. Given that high communalities can lead to good recovery of population factors for a variety of sample sizes, we removed the items with the lowest communalities until the mean of the communalities reached a .7 threshold (MacCallum, Widaman, Preacher, & Hong, 2001). This resulted in a reduction from the original set of 113 items to a pool of 81 items. We obtained a Kaiser-Meyer-Olkin value of .883, and Bartlett’s test of sphericity $\chi^2(3321) = 9529.65, p < .001$, which suggested that the items were adequate for conducting the factor analysis. A parallel analysis indicated that four factors might best represent the data, although an observation of the scree plot suggested a three-factor solution. In examining the four factors, three of the five items that loaded above .4 on the fourth factor had higher cross-loadings

on at least one of the other factors. These results suggested that the fourth factor may not be stable (Costello & Osborne, 2005); we therefore removed the factor and items from the analysis in favor of the three-factor solution. To refine the scale, we removed items with factor loadings below .5. Factor loadings for the final three-factor solution of 19 items and correlations between the factors are displayed in Table 1. This solution explained approximately 60.34% of the variance in the data. In addition to these statistical results, we reviewed the qualitative characteristics of items within each factor. The first of the three retained factors included items that primarily refer to use of spending regarding negative feelings (e.g., feeling hurt, down), and was labeled Affective Coping; the second contained items that relate to using spending regarding social situations (e.g., desires to fit in and to be well-regarded), and was labeled Social Coping; and the third factor contained items that refer to engagement in unplanned spending (e.g., lack of awareness of the relationship between buying behavior and psychological intention), and was labeled Spending Impulsivity.

Study 2

For Study 2, we used confirmatory factor analysis (CFA) to test the generalizability of the proposed factor structure from Study 1 to a new sample. We also tested alternative factor structures, including higher-order and bifactor solutions. We then compared the results of these alternative solutions.

Method

Participants. Sample 2 consisted of 691 undergraduate students ($M = 19.64$ years old, $SD = 1.62$ years) from a Midwestern university. Participants were predominantly female (73.1%), and European American (85.8%; Asian American, 4.4%; Hispanic/Latino/Latina American, 3.8%; multiracial American, 2.7%; African American, 1.0%; international students, 1.8%; Native Hawaiian/Islander, 0.2%; Others, 0.2%). Participants' median monthly income was \$320 ($M = \909, $SD = \$3,033$). We measured participants' subjective social class ratings, using the MSSSC, to assess their perception of their own social standing as well as their social standing in contexts and the results are as follows: their own social class ($M = 5.47$, $SD = 1.74$); their family of origin's social class ($M = 6.08$, $SD = 2.27$); their peers' social class ($M = 5.85$, $SD = 1.88$); their likely future social class ($M = 7.45$, $SD = 2.05$).

Procedures. Procedures for Study 2 were the same as those for Study 1 with some minor exceptions. We recruited participants in sample 2 using

Table 1. Spending as Social and Affective Coping (SSAC) Scale Items and Factor Loadings from the Final Reduced Item Set

Subscale	Item	Factor 1	Factor 2	Factor 3
Affective coping	I sometimes spend money to distract myself from negative feelings.	.89	-.05	.03
	When I feel down I am more likely to buy things.	.88	-.04	.02
	I spend money when I feel hurt.	.83	.01	.07
	When I feel overwhelmed I sometimes spend money to feel better.	.81	-.02	-.10
	I spend money when I cannot tolerate feeling down.	.74	.05	-.04
	When I feel lonely I am more likely to buy things.	.71	.08	-.05
	Spending money on me helps me avoid thinking about my problems.	.68	.00	-.09
Social coping	If I have nice things I am more likely to be popular.	-.14	.79	.14
	I often spend money on items that will help me to fit in.	.12	.75	.02
	It is important for me to have the possessions that my peers have.	-.13	.72	-.15
	If I own expensive things people will feel more positively towards me.	.09	.66	.05
	I am more likely to buy things that are popular.	-.19	.62	-.18
	I am more likely to buy things that well-respected people have.	.14	.59	.10
	If I am not up on the latest fashions others might think that I am boring.	.10	.58	.03
Spending impulsivity	To fit in I have to spend on certain experiences.	.14	.57	-.00
	I only shop when I have to. (R)	-.05	-.05	.69
	It is easy for me to avoid buying something that I want. (R)	-.03	.07	.62
	When I go shopping I only get the things that I planned. (R)	-.03	.07	.62
	I don't shop unless I am planning to buy something. (R)	-.02	-.02	.57

Note. Items marked (R) were reverse scored. In the EFA, Factor 1 was correlated with Factor 2 ($r = .448$) and Factor 3 ($r = -.575$), and Factor 2 was correlated with Factor 3 ($r = -.264$). Bold font indicates the factor loading of the item on the factor to which it was assigned.

a university email listserve. As compensation, we offered participants the chance to win one of twenty \$20 gift cards. We asked the participants to provide the same demographic information and information about their spending as in Study 1. We administered the final set of SSAC scale items to these participants.

Results

We analyzed the covariance matrix for the CFA with maximum likelihood estimation with robust standard errors (MLR) using *Mplus* 7.11 (Muthén & Muthén, 1998-2012). We used the following guidelines for good fit: a robust chi-square, Comparative Fit Index (CFI) equal to or greater than .95, a Standardized Root Mean Square Residual (SRMR) equal to or less than .08, and a Root Mean Square Error of Approximation (RMSEA) equal to or less than .06 (Hu & Bentler, 1999). The CFA of an oblique three-factor structure that was suggested by the EFA showed good fit using these criteria: χ^2 (149) = 318.40, $p < .001$, RMSEA = .041 (95% CI [.034, .047]), CFI = .966, SRMR = .039. We compared this three-factor structure with a single-factor structure in which all of the items were loaded onto one factor, and a two-factor structure which combined items related to impulsivity and affective control. For this two-factor structure, factor correlations and previous research have suggested a strong relationship between these constructs (Verplanken & Herabadi, 2001). The one-factor model yielded a poor fit to the data: χ^2 (152) = 1742.78, $p < .001$, RMSEA = .123 (95% CI [.118, .128]), CFI = .680, SRMR = .120. The two-factor model had an adequate fit: χ^2 (151) = 618.68, $p < .001$, RMSEA = .067 (95% CI [.062, .072]), CFI = .906, SRMR = .057. However, the Satorra-Bentler adjusted chi-square difference test suggested that the three-factor model was a significantly better fit for the data: χ^2 (2) = 229.30, $p < .001$.

Model fit statistics are the same when comparing an oblique three-factor model and a higher-order model three-factor model with a general second order factor (see Figure 1), and this was therefore also the case when analyzing the models in this study. To test whether the full-scale score, based on the second-order factor structure, could account for significant additional variation in the data over a three-factor model, we conducted a Satorra-Bentler test between the higher-order model and a three-factor model where the factors were forced to be orthogonal. This test was significant, with $\Delta \chi^2$ (3) = 251.35, $p < .01$, suggesting that the higher-order model was explained significantly more variance in the data.

In the higher-order model, the standardized pathway coefficients from the second-order factor to each of the affective coping ($\beta = .98$ $p < .01$), social

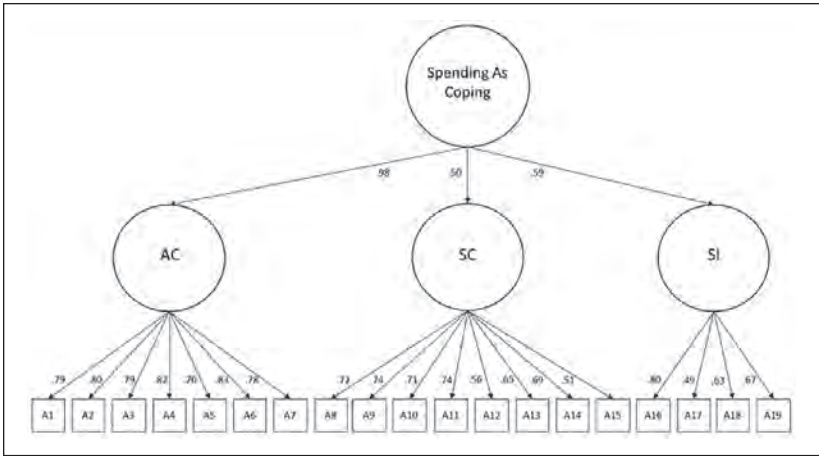


Figure 1. Standardized coefficients of the hierarchical model.
Note. AC = Affective Coping; SC = Social Coping; SI = Spending Impulsivity. All paths were significant at $p < .001$.

coping ($\beta = .50$ $p < .01$), and impulsive buying ($\beta = .59$ $p < .01$) factors were significant. The large magnitude of the standardized pathway from the second-order general factor to affective coping factor suggested that affective coping was difficult to parse from the second-order factor. We therefore also examined a bifactor model to assess the simultaneous effect of the first and second-order factors on the measured variables. This model assesses the common variance of items as a general factor, and the specific variance explained by the social and affective coping, and spending impulsivity factors not accounted for by the general factor. The bifactor model showed an adequate fit to the data $\chi^2(133) = 397.02$, $p < .001$, RMSEA = .05 (95% CI [.048, .060]), CFI = .947, SRMR = .029. A scaled chi-square difference test between the bifactor and higher-order models was not significant, although this test can be biased in favor of the bifactor model under some circumstances (Mansolf & Reise, 2017). Given that the higher-order factor model is more parsimonious than the bifactor model (Chen, West, & Sousa, 2006) and we tested it in subsequent measurement invariance analyses.

Study 3

We conducted further tests of validity on a third sample of participants. Tests of measurement invariance assessed whether the scale was measuring the proposed constructs similarly across men and women as well as students and

non-students. We also assessed the reliability of the SSAC subscale scores and their convergent validity with other measures through the testing of six hypotheses.

Method

Participants. The Study 3 sample consisted of 444 undergraduate students and 364 non-students. The students ($M = 23.05$ years old, $SD = 5.82$ years) were predominantly female (73.1%; European American 90.7%; Asian American, 3.0%; Hispanic/Latino/Latina American, 3.0%; multiracial American, 0.5%; African American, 0.8%; international students, 1.8%; Other, 0.3%). Participants' median estimated monthly income was \$800 ($M = \$1,179$, $SD = \$1,264$). Students' subjective social class ratings, based on the MSSSC, were on average 5.72 ($SD = 1.74$). Student participants also reported their perception of social class based on other contexts: family of origin's social class ($M = 6.08$, $SD = 2.27$); peers' social class ($M = 5.85$, $SD = 1.88$); and likely future social class ($M = 7.45$, $SD = 2.05$). The nonstudent participants ($M = 41.09$ years old, $SD = 13.03$ years) were predominantly female (79.9%; European American, 71.8%; African American, 10.1%; Latino/Latina American, 5.9%; Asian American, 9.0%; multiracial American, 2.8%; Native Hawaiian/Islander, 0.3%) and had some level of undergraduate education or had completed a degree (72.9%; completed high school diploma, 13.3%; university postgraduate degree, 13.8%; technical). Their median estimated monthly income was \$3,500 ($M = \$4,072$, $SD = \$2,200$). Their subjective social class ratings, based on the MSSSC, were as follows: own social class ($M = 6.09$, $SD = 1.55$); family of origin's social class ($M = 5.62$, $SD = 1.97$); peers' social class ($M = 6.22$, $SD = 1.63$); and likely future social class ($M = 6.95$, $SD = 1.67$).

Measures. We asked participants to estimate their monthly spending on clothes, hobbies, social activities, and their yearly spending on trips/vacations. We also provided prompts of the types of items included in those categories (e.g. for clothing: "clothes, make-up, hair, watches, etc."). Additionally, participants provided responses to the measures described below. Means, standard deviations, and ranges of Cronbach's alphas for each scale are displayed in Table 2.

Negative mood regulation. The Negative Mood Regulation Scale (Catanzaro & Mearns, 1990) is used to assess the extent to which respondents believe that certain strategies will help them cope with negative moods using a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores indicate greater belief in one's ability to regulate one's

Table 2. Correlations Among Scores and Scores' Means, Standard Deviations, and Cronbach's Alphas

Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. SSAC - Affective coping	—													
2. SSAC - Social coping	.464**	—												
3. SSAC - Spending impulsivity	.578**	.321**	—											
4. Compulsive Buying scale	-.557**	-.309**	-.390**	—										
5. IBTS - Cognitive	.634**	.379**	.714**	-.533**	—									
6. IBTS - Affective	.629**	.494**	.632**	-.533**	.683**	—								
7. Need to belong scale	.237**	.472**	.187**	-.168**	.188**	.327**	—							
8. Negative mood regulation scale	-.254**	-.165**	-.146**	.165**	-.143**	-.229**	-.209**	—						
9. Material values scale	.514**	.608**	.499**	-.428**	.560**	.637**	.312**	-.301**	—					
10. Contingent self-esteem scale	.319**	.480**	.261**	-.224**	.260**	.414**	.638**	-.332**	.462**	—				
11. Mth. spending - social activities	.130**	.076*	.128**	-.198**	.163**	.042	.016	.148**	.059	.064	—			
12. Mth. spending - clothes	.242**	.168**	.284**	-.202**	.254**	.187**	.006	.159**	.137**	.114**	.582**	—		
13. Mth. spending - hobbies	.158**	.026	.134**	-.174**	.138**	.055	-.060	.143**	.015	.020	.540**	.585**	—	
14. Yr. spending - vacations	-.011	.025	-.012	-.051	.006	-.062	-.053	.223**	-.092**	.002	.459**	.420**	.438**	—
M	15.41	17.76	11.64	1.71	30.52	35.71	30.33	108.84	47.77	25.68	100	50	50	500
SD	6.74	5.97	3.39	1.69	11.64	10.88	6.58	15.88	11.70	5.38				
Cronbach's Alpha		.939-.936	.860-.870	.794	.898	.843	.818	.897	.898	.816				

Notes. * $p < .05$, ** $p < .01$. Note that monthly and yearly spending values are estimates and that medians are provided for these variables instead of means. SSAC = Spending as Social and Affective Coping; IBTS = Impulse Buying Tendency Scale.

emotional state. All items use the stem: "When I'm upset, I believe that. . .", and a sample item is "I can usually find a way to cheer myself up." Researchers have reported Cronbach's alphas ranging from .80 to .94 (Catanzaro, Horaney, & Creasey, 1995; Catanzaro & Mearns, 1990), with $\alpha = .89$ for our study sample. Scores on the Negative Mood Regulation Scale have been significantly associated with passive and active coping strategies (Friedman-Wheeler, Pederson, Rizzo-Busack, & Haaga, 2016).

Contingent self-esteem. Roberts et al. (2014) reduced the original 18-item scale to the eight-item version we used by eliminating items with low factor loadings or that were not understood by respondents. Higher scores on this scale indicate that a person's self-esteem is more contingent upon what others think and feel about them. Responses are provided on a 5-point Likert-type scale from 1 (*strongly disagree*) to 5 (*strongly agree*). An example item is: "An important measure of my worth is how physically attractive I am." This scale has been used as a measure of self-esteem for a variety of samples, and has been associated with compulsive buying (Roberts et al., 2014). Cronbach's alpha for our sample was $\alpha = .82$.

Compulsive buying scale. The Compulsive Buying Scale (Faber & O'Guinn, 1992) consists of seven items describing aspects of compulsive buying. An example item is: "If I have any money left at the end of the pay period, I just have to spend it", on a Likert-type scale from 1 (*strongly agree*) to 5 (*strongly disagree*). This scale has been widely used to measure a continuum of compulsive buying tendencies (e.g., Ridgway et al., 2008) and has been used to measure the prevalence of compulsive buying disorder in research (Maraz, Griffiths, & Demetrovics, 2016). Negative scores on this scale are associated with compulsive buying. The original developers reported a Cronbach's alpha of .95, and for our study sample $\alpha = .79$.

Impulse buying tendency scale. Verplanken and Herabadi (2001) developed the Impulsive Buying Tendency Scale to measure impulsive buying. The scale contains 20 items with two subscales referring to cognitive and affective aspects of impulsive buying. Items use a 7-point Likert-type scale, with high values indicating a high impulse buying tendency. An example item is: "If I see something new, I want to buy it." They found that Impulsive Buying Tendency Scale scores were related to respondents' self-reports of purchasing products impulsively and Big Five personality traits. They reported coefficient alphas of .91 for the cognitive subscale and .83 for the affective subscale in a student sample. For our sample, $\alpha = .90$ for the cognitive scale and $\alpha = .84$ for the affective subscale.

Need to belong. A modified 10-item version of the Need to Belong Scale (Kelly, 1999) assesses the degree to which respondents seek acceptance from social groups. Respondents are asked to indicate their agreement with each statement with a score of 1 (*strongly disagree*) to 5 (*strongly agree*). An example item is: "I want other people to accept me." Internal consistency estimates in different student and community samples range from $\alpha = .78$ to $\alpha = .87$, and $\alpha = .82$ for our sample (Leary, Kelly, Cottrell, & Schreindorfer, 2013). Evidence suggests that the scale is associated with, but distinct from, similar constructs which examine extraversion, affiliation motivation, and emotional reactions to rejection (Leary et al., 2013).

Material values scale. Richins and Dawson (1992) developed the Material Values Scale (MVS) to measure materialism, defined as an enduring belief in the desirability of acquiring possessions. The scale has been used widely in research on materialism and has been found to relate to financially contingent self-worth (Park, Ward, & Naragon-Gainey, 2017). Respondents are asked to indicate their agreement with each statement with a score of 1 (*strongly disagree*) to 5 (*strongly agree*). An example item is: "The things I own say a lot about how well I'm doing in life." In a review of 44 studies by Richins (2004), internal consistency coefficients ranged between .77 and .88 with an average of .85, and $\alpha = .90$ for our sample.

Procedures. Procedures for Study 3 were similar to those of Studies 1 and 2. We recruited participants for Study 3 using a university and hospital list-serve sent to students, and staff. We offered all participants the chance to win one of twenty \$20 gift cards for participating. We asked the participants to provide the same demographic information as those in Study 1, and to respond to the SSAC and other measures using an online survey.

Results

Measurement invariance. We conducted tests of measurement invariance to determine if the SSAC was assessing constructs similarly across groups. We assessed measurement invariance across males and females (five individuals who did not identify gender were removed from the analysis), and students and nonstudents. We used multi-group CFA to compare a series of nested models following a sequential constraint approach (Dimitrov, 2010). We conducted scaled chi-square difference tests between the nested models to assess invariance, but given that these tests are sensitive to sample size and other factors, we also used the criterion of a change in CFI of $< .01$ as evidence of measurement invariance (Chen, 2007).

Table 3. Model Statistics for Measurement Invariance Across Groups

Model	Scaled Chi Sq (df)	ΔScaled Chi Sq (df)	p	CFI	ΔCFI	RMSEA	ΔRMSEA
Students vs non-students							
Students	371.70 (149)			.944		.057	
Non-students	305.91 (149)			.952		.053	
Model 0	677.08 (295)			.948		.056	
Model 1	690.47 (314)	8.20 (199)	.985	.948	.000	.054	-.002
Model 2	697.97 (316)	7.59 (2)	.023*	.948	.000	.054	.000
Model 3	750.91 (334)	54.52 (18)	<.001**	.943	-.005	.055	.001
Model 4	751.73 (335)	0.82 (1)	.364	.943	.000	.055	.000
Model 5	755.99 (338)	5.88 (3)	.118	.940	-.003	.055	.000
Male vs female							
Female	368.24 (149)			.958		.049	
Male	240.77 (149)			.950		.055	
Model 0	601.23 (295)			.956		.050	
Model 1	627.90 (314)	21.36 (19)	.317	.955	-.001	.049	-.001
Model 2	633.05 (316)	5.09 (2)	.078	.955	.000	.049	.000
Model 3	726.59 (334)	100.32 (18)	<.001**	.944	-.011	.053	.004
Model 3P	706.48 (332)	73.42 (16)	<.001**	.946	-.009	.052	.003
Model 4	748.23 (335)	21.64 (1)	<.001**	.941	-.003	.055	.002
Model 5	755.99 (338)	7.69 (3)	.052	.940	-.001	.055	.000

Notes. * $p < .05$, ** $p < .01$.

The results of measurement invariance across the groups appear in Table 3. Model 0 is the test of the baseline model with no invariance assumed, Model 1 imposes the constraint of equal first-order factor loadings, Model 2 adds the constraint of equal second-order loadings, Model 3 adds the constraint of equal item intercepts, Model 4 adds the constraint of equal first-order intercepts, and Model 5 adds the constraint of equal first-order factor disturbances. Each of the sequential changes in the gender comparison suggested invariance for both groups according to the stated criterion of change of CFI $<-.01$, except for Model 3. To see if we could obtain partial invariance for Model 3, we sequentially unconstrained the items with the largest differences in intercepts across gender. A model with two intercepts unconstrained for the items: "I only shop when I have to" and "I don't shop unless I am planning to buy something" on the impulsive factor met the invariance criteria (see Model 3P). These findings suggest that caution should be used in comparing results of male and female identified individuals on the SSAC Spending Impulsivity scale.

Reliability. We assessed the reliability of the SSAC subscale scores for each of our three study samples. Cronbach's alphas ranged from .93-.94 for the

Affective Coping subscale, .86-.87 for the Social Coping subscale, and .74-.77 for the Spending Impulsivity subscale. The subscale scores therefore showed acceptable reliability across all samples.

Convergent validity. We assessed the convergent validity of the SSAC scale scores by examining correlations between the subscale scores and potentially related constructs (see Table 2). Based on a theorized nomological network of buying as coping, we generated and tested six hypotheses regarding the relationship between the SSAC subscales and other measures.

Hypothesis 1 predicted that the SSAC Affective Coping and SSAC Spending Impulsivity scale scores would be positively correlated with the scores on other measures of impulsive and compulsive buying, as coping with negative affect may underlie impulsive and compulsive behaviors (O'Guinn & Faber, 1989). This hypothesis was supported by large positive correlations between both SSAC scale scores and the scores on Compulsive Buying Scale and Impulsive Buying Tendency Scale. Hypothesis 2 proposed that the SSAC Affective Coping scale score would be negatively correlated with the Negative Mood Regulation Scale score, as positive scores on the Negative Mood Regulation Scale reflect a belief that one cannot change their negative moods. This hypothesis was also supported by our finding of a moderate negative correlation between these scores. Hypotheses 3 and 4 proposed that scores on the SSAC Social Coping scale would be positively related to contingent self-esteem and materialism respectively. Both hypotheses were supported by positive moderate correlations between these scores on these constructs. Hypothesis 5 proposed that the SSAC Social Coping scale score would positively relate to an individual's need to belong. Need to belong is not just a need to be affiliative or to socialize with others, but it is motivation to gain people's acceptance and positive evaluations (Leary et al., 2013). Hypothesis 5 was supported by a moderate positive correlation between the scores on the SSAC Social Coping Scale and the Need to Belong Scale. Hypothesis 6 proposed there would be positive correlations between each of the SSAC subscale scores and a person's monthly spending on clothes, hobbies, and social activities. Yearly spending on vacations is more likely to be constrained by other factors and we hypothesized that this scale score would not be related to any of the subscale scores. Hypothesis 6 was partially supported by small positive correlations between monthly spending on clothes, hobbies, and social activities, and the SSAC Affective Coping and Impulsivity scale scores. There were also small significant correlations between spending on clothes and social activities and the SSAC Social Coping scale score.

Discussion

The SSAC scale marks a first attempt to measure how people spend money to cope with negative emotions and social environments. Our results supported a hierarchical scale structure, with three second-order and one first-order factors. Measurement invariance was supported across student status and partial measurement invariance was supported across gender. Each of the subscale scores was reliable across study samples and convergent validity of the scale scores was largely supported.

The multidimensional structure of the SSAC and relationships between constructs support our theoretical framework. Some of the items on the SSAC Affective Coping Scale reflect the use of spending to reduce emotional distress from social pain, such as the item regarding spending to cope with loneliness, and the SSAC Social Coping scale contains items that reflect spending to improve social standing or affiliation. Both therefore represent attempts at social/emotional control that are often not a part of planned spending.

The presence of a second order general factor also supports our prior theory, suggesting that there is a general factor for coping through spending which contributes to each of the primary factors. The high-loading of the affective coping subscale on to the general factor reflects the theory that this factor is primarily for control of one's negative emotional state. The lower loadings for the other two subscales suggest they have more variance that is unique from the general factor. The presence of a secondary impulsive spending factor reflects prior theory that negative affective control, as a form of general coping, may be an important influence on impulsive buying (O'Guinn & Faber, 1989), but also that there is a unique aspect of spending impulsivity that is not captured through the general coping factor. Further, the social coping subscale was also influenced by the general coping factor but had variance uniquely for spending to cope with one's social environment, which reflects research suggesting that improving social connection through spending also alleviates social pain (Chang & Arkin, 2002).

The construct validity of each of the subscale scores was supported by hypothesized relationships between the subscales and those measuring related constructs. As predicted, the SSAC Affective Coping subscale scores were associated with compulsive and impulsive buying, supporting theories that these types of buying occur primarily to control negative emotions (O'Guinn & Faber, 1989). Additionally, it reflects negative affective coping more purely than existing scales that measure compulsive and impulsive buying, whose items are also focused on other influences on spending.

Our results also supported two important ideas regarding the SSAC Social Coping subscale. First, this subscale was related to a need to belong, as

attempts to avoid rejection through spending have been associated with beliefs that this behavior will improve social connection and standing. Second, this scale was related to a measure of contingent self-esteem, or the fact that self-evaluations are guided by people's perceptions of how their social group views them (Benson, 2000; Lee & Shrum, 2012). Thus, this measure may not just measure attempts to connect socially through spending, but also how these behaviors are used to cope with threats to self-esteem. Such threats could ultimately contribute to negative affect, which is supported by the relationship between this scale and the SSAC Affective subscale.

The separation of spending to improve one's negative affective state from that intended to control one's social environment is supported by Desarbo and Edwards (1996), who described these as two motivations for compulsive buying. Spending as a means of social coping is not typically assessed by measures of excessive buying, and its influence on spending may occur through its relation to negative affective states. Spending to control one's social environment may be motivated by the benefits of positive social interactions and the associated improvements in affect and self-esteem, as well as the threat of negative interactions that may increase negative affect.

The measurement invariance analyses indicated that the SSAC subscales were measuring their associated constructs similarly across two types of groups. This was the case even though professionals/workers reported higher incomes on average than the students, and these two groups inhabit different environments, which might affect their relative valuing of material possessions and use of such possessions for social and affective coping. Additionally, some research suggests that problematic buying behaviors are more prevalent among women (Maraz et al., 2016), and spending for social and emotional coping might occur to different degrees among men and women.

Our results suggested partial scalar measurement invariance for men and women, with items on the Spending Impulsivity subscale contributing the most to varying scores between groups. Thus, use of the impulsive subscale for comparisons between genders was not supported by our results, which suggested that men and women may be responding to some of these items to different degrees. To the authors' knowledge, previous researchers using impulsive buying scales have not considered the measurement invariance across gender, which is important to establish in future studies to support comparisons of impulsive buying across these groups.

Limitations

One potential limitation of the scale is in order to answer many of its items, respondents need to have awareness of the contingencies related to, or

reasons for their spending. This means that some spending for affective and social coping may not be assessed by respondents if they do not connect it with their emotional state or attempts to connect socially. This may be somewhat balanced by the impulsive scale, as spending that is unplanned/impulsive may be easier to remember and estimate. However, this scale might also track spending for other unplanned reasons, such as spending to create increase positive affect or relieve boredom.

Additionally, we tested the scale on students and nonstudents. We recruited our sample of nonstudents from a university and hospital listserv thus had a relatively narrower range of ethnicity, occupation, and educational levels than might be found in other samples. Given the potential effect of one's social class and social and cultural environment on the valuing of possessions and buying behavior, this scale would be further supported by research on its use with more varied samples.

Further research could also be conducted to examine the structure of the items on the impulsive scale in new samples. Both standard-coded and reverse coded items loaded on each factor after the EFA, but, after we refined the scales with the removal of items with higher cross-loadings, the impulsivity in spending subscale only included reverse-coded items. The other subscales include only standard-coded items. Although these items were conceptually similar and distinct from those on the other scales, it is possible that method effects related to the differential coding of the items were present. Methods variance can affect the factor structure and bias correlations between scale scores, (DiStefano & Motl, 2006) and should be assessed through further research.

Implications for Research, Practice, Advocacy, and Education/Training

Although previous research has examined compulsive and impulsive buying, few researchers have addressed the use of spending as a mechanism of emotional and social coping specifically. Further, the monetary cost of compulsive buying is significant, but levels of coping-related spending problems in the general population have not been assessed (Zhang, Brook, Leukefeld, De La Rosa, & Brook, 2017). Researchers might also explore the specific relationships between the SSAC and various emotional/social distress indicators, such as loneliness and social rejection. Moreover, future researchers might investigate how overall mental health distress (e.g., depression, anxiety) may remain under-treated due to a lack of awareness about how individuals' psychological issues relate to their spending related coping behaviors. Furthermore, researchers might examine how coping through spending is

related to other forms of coping, such as emotional avoidance or avoidance of problem-solving (Carver et al., 1989).

Researchers can investigate the relationship between spending as social as well as affective coping and psychological well-being. Spending money to improve others' impression of oneself might be adaptive in some cases, if their social environment highly values particular possessions. However, as individuals spend to cope emotionally and socially, they may fail to adopt other strategies that might be more helpful, such as developing deeper and more supportive interpersonal relationships. There is evidence that materialism leads to psychological difficulties, if it interferes with other means of satisfying one's psychological needs, and as spending-based coping mediates the association between materialism and psychological well-being, it might have a similarly inhibiting effect (Wang, Liu, Jiang, & Song, 2017).

Counseling psychologists may discuss the role of spending as a form of affective and social coping with their clients and may explore alternative coping skills that could produce more sustainable effects on their emotional and social well-being. Counseling psychologists can also use this instrument to support financial literacy, such as in money management workshops (Gutter & Copur, 2011). Existing workshops may not address this use of spending. A singular focus on budgeting may be less helpful than an approach which considers the potential role of unplanned spending in the lives of attendees. Financial strain also influences marital instability, and this research may have applicability for clinicians conducting couples therapy (Archuleta, Britt, Tonn, & Grable, 2011; Gudmunson, Beutler, Israelsen, McCoy, & Hill, 2007). Financial strain can increase the level of dispute between partners, and it would be helpful if practitioners could help partners to better understand the factors that influence spending decisions and help them develop alternative coping methods (Gudmunson et al., 2007). If people better understand what influences unplanned spending, it may help them make more informed choices.

Our measure can inform advocacy efforts by providing a research tool for understanding the impact of marginalization on spending behaviors among socioeconomically vulnerable populations. Specifically, researchers could look at whether circumstances (e.g., classism, unemployment) increase the likelihood of developing these forms of coping (Liu, 2011). Advocates could not only assess potentially ineffective coping skills stemming from unfulfilled emotional and social needs, but also provide insights about some barriers to financial stability among socioeconomically vulnerable populations. Our measure could also be used in the critical examination of the impact of both explicit and implicit institutionalized encouragement for spending (e.g., commercials, media; Kasser, 2006) on individuals' mental health. It could inform advocacy efforts that target problematic inducement of spending-based coping. Using this measure, advocates in

the counseling psychology community may also be able to take a preventive role in enhancing awareness of the importance of more mindful and healthier spending behaviors in society (Buijzen & Valkenburg, 2003; Kramer, 2006).

Our measure could also be used to improve education and training of counseling psychologists by providing a means for helping them better understand how cultural values around consumer spending and materialism shape people's coping-focused spending. Currently there is a dearth of research on the effect of cultural values on this form of coping. Educating counseling psychologists about these effects could help them better understand how clients may come to rely on spending to help them connect with others and cope with difficult events. Counselors can also benefit from understanding how this might affect their clients' ability to use other strategies for emotional coping or to engage with others who do not share those values.

Researchers and clinicians should consider spending behaviors as a form of coping across a continuum, and not just those behaviors which are indicative of a psychiatric disorder requiring treatment (Lee & Mysyk, 2004). In many cases, these forms of coping may not be problematic, yet they should still be recognized to understand how individuals cope with negative affective states and their social environment. It is important for counseling psychologists to learn how this can relate to financial stress, self-esteem, social connection, perceptions of social support, and other important outcomes. The SSAC captures these forms of coping distinctly from related constructs such as impulsive and compulsive buying, and materialism, and will serve as a useful tool for further research in this area.

Authors' Note

Alexander Rice is now at Uniformed Services University of the Health Sciences.

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.

References

- Anestis, M. D., Selby, E. A., Fink, E. L., & Joiner, T. E. (2007). The multifaceted role of distress tolerance in dysregulated eating behaviors. *International Journal of Eating Disorders*, 40, 718–726. doi:10.1002/eat.20471

- Archuleta, K. L., Britt, S. L., Tonn, T. J., & Grable, J. E. (2011). Financial satisfaction and financial stressors in marital satisfaction. *Psychological Reports, 108*, 563–576. doi: 10.2466/07.21.PR0.108.2.563-576
- Arnow, B., Kenardy, J., & Agras, W. S. (1995). The Emotional Eating Scale: The development of a measure to assess coping with negative affect by eating. *International Journal of Eating Disorders, 18*, 79–90. doi:10.1002/1098-108X(199507)18:1<79::AID-EAT2260180109>3.0.CO;2-V
- Baumeister, R. F. (2002). Yielding to temptation: Self-control failure, impulsive purchasing, and consumer behavior. *Journal of Consumer Research, 28*, 670–676. doi:10.1086/338209
- Benson, A. Ed. (2000). *I Shop, Therefore, I Am*. Northvale, NJ: Jason Aronson.
- Berger, J., & Heath, C. (2007). Where consumers diverge from others: Identity signaling and product domains. *Journal of Consumer Research, 34*, 121–134. doi:10.1086/519142
- Buijzen, M., & Valkenburg, P. M. (2003). The unintended effects of television advertising. *Communication Research, 30*, 483–503. doi:10.1177/0093650203256361
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56*, 267–283. doi:10.1037/0022-3514.56.2.267
- Catanzaro, S. J., Horaney, F., & Creasey, G. (1995). Hassles, coping, and depressive symptoms in an elderly community sample: The role of mood regulation expectancies. *Journal of Counseling Psychology, 42*, 259–265. doi:10.1037/0022-0167.42.3.259
- Catanzaro, S. J., & Mearns, J. (1990). Measuring generalized expectancies for negative mood regulation: Initial scale development and implications. *Journal of Personality Assessment, 54*, 546–563. doi:10.1080/00223891.1990.9674019
- Chang, L., & Arkin, R. M. (2002). Materialism as an attempt to cope with uncertainty. *Psychology & Marketing, 19*, 389–406. doi:10.1002/mar.10016
- Chen, F. F. (2007). Sensitivity of goodness of fit indexes to lack of measurement invariance. *Structural Equation Modeling, 14*, 464–504. doi:10.1080/10705510701301834
- Chen, F. F., West, S. G., & Sousa, K. H. (2006). A comparison of bifactor and second-order models of quality of life. *Multivariate Behavioral Research, 41*, 189–225. doi:10.1207/s15327906mbr4102_5
- Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research & Evaluation, 10*(7), 1–9. Retrieved from: <https://pareonline.net/pdf/v10n7.pdf>
- Desarbo, W. S., & Edwards, E. A. (1996). Typologies of compulsive buying behavior: A constrained clusterwise regression approach. *Journal of Consumer Psychology, 5*, 231–262. doi:10.1207/s15327663jcp0503_02
- Dimitrov, D. M. (2010). Testing for factorial invariance in the context of construct validation. *Measurement and Evaluation in Counseling and Development, 43*(2), 121–149. doi:10.1177/0748175610373459

- DiStefano, C., & Motl, R. W. (2006). Further investigating method effects associated with negatively worded items on self-report surveys. *Structural Equation Modeling, 13*(3), 440–464. doi: 10.1207/s15328007sem1303_6
- Dittmar, H. (2005). A new look at “compulsive buying”: Self-discrepancies and materialistic values as predictors of compulsive buying tendency. *Journal of Social and Clinical Psychology, 24*, 832–859. doi:10.1521/jscp.2005.24.6.832
- Dittmar, H., & Kapur, P. (2011). Consumerism and well-being in India and the UK: Identity projection and emotion regulation as underlying psychological processes. *Psychological Studies, 56*(1), 71–85. doi:10.1007/s12646-011-0065-2
- Donnelly, G. E., Ksendzova, M., Howell, R. T., Vohs, K. D., & Baumeister, R. F. (2016). Buying to blunt negative feelings: Materialistic escape from the self. *Review of General Psychology, 30*, 272–316. doi:10.1037/gpr0000078
- Edwards, E. A. (1993). Development of a new scale for measuring compulsive buying behavior. *Financial Counseling and Planning, 4*, 67–85. Retrieved from http://www.afcpe.org/assets/journals/vol_45.pdf
- 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*, 803–819. doi:10.1002/(SICI)1520-6793(199612)13:8<803::AID-MAR6>3.0.CO;2-J
- Faber, R. J., & O'Guinn, T. C. (1992). A clinical screener for compulsive buying. *Journal of Consumer Research, 19*, 459–469. Retrieved from <https://www.jstor.org/stable/2489402>
- Feeney, J. A. (2005). Hurt feelings in couple relationships: Exploring the role of attachment and perceptions of personal injury. *Personal Relationships, 12*, 253–271. doi:10.1111/j.1350-4126.2005.00114.x
- Folkman, S., & Lazarus, R. S. (1988). Coping as a mediator of emotion. *Journal of Personality and Social Psychology, 54*, 466–475.
- Folkman, S., Lazarus, R. S., Dunkel-Schetter, C., DeLongis, A., & Gruen, R. J. (1986). Dynamics of a stressful encounter: Cognitive appraisal, coping, and encounter outcomes. *Journal of Personality and Social Psychology, 50*, 992–1003. doi:10.1037/0022-3514.50.5.992
- Folkman, S., & Moskowitz, J. T. (2004). Coping: Pitfalls and promise. *Annual Review of Psychology, 55*, 745–774. doi:10.1146/annurev.psych.55.090902.141456
- Friedman-Wheeler, D. G., Pederson, J. E., Rizzo-Busack, H. M., & Haaga, D. A. F. (2016). Measuring outcome expectancies for specific coping behaviors: The Coping Expectancies Scale (CES). *Journal of Psychopathology and Behavioral Assessment, 38*(3), 421–432. doi:10.1007/s10862-016-9539-9
- Frost, R. O., Kyrios, M., McCarthy, K. D., & Matthews, Y. (2007). Self-ambivalence and attachment to possessions. *Journal of Cognitive Psychotherapy, 21*(3), 232. doi:10.1016/j.paid.2012.05.009
- Gross, J. J. (2014). *Handbook of emotion regulation*. New York: Guilford Press.
- Gross, J. J., & Thompson, R. A. (2007). Emotion regulation: Conceptual foundations. In J. J. Gross (Ed.), *Handbook of emotion regulation* (pp. 3–24). New York, NY: Guilford Press.

- Gudmunson, C. G., Beutler, I. F., Israelsen, C. L., McCoy, J. K., & Hill, E. J. (2007). Linking financial strain to marital instability: Examining the roles of emotional distress and marital interaction. *Journal of Family and Economic Issues*, 28, 357–376. doi:10.1007/s10834-007-9074-7
- Gutter, M., & Copur, Z. (2011). Financial behaviors and financial well-being of college students: Evidence from a national survey. *Journal of Family and Economic Issues*, 32, 699–714. doi:10.1007/s10834-011-9255-2
- Hu, L., & 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, 1–55. doi:10.1080/10705519909540118
- John, O. P., & Gross, J. J. (2004). Healthy and unhealthy emotion regulation: Personality processes, individual differences, and lifespan development. *Journal of Personality*, 72, 1301–1334. doi:10.1111/j.1467-6494.2004.00298.x
- Jung, J., & Yi, S. (2014). Assessment of heterogeneity of compulsive buyers based on affective antecedents of buying lapses. *Addiction Research and Theory*, 22, 37–48. doi:10.3109/16066359.2012.756475
- Kasser, T. (2006). Materialism and its alternatives. In M. Csikszentmihalyi & I. S. Csikszentmihalyi (Eds.), *A life worth living: Contributions to positive psychology*. New York, NY: Oxford University Press.
- Kellett, S., & Bolton, J. V. (2009). Compulsive buying: A cognitive-behavioural model. *Clinical Psychology and Psychotherapy*, 16, 83–99. doi:10.1002/cpp.585
- Kelly, K. M. (1999). *Measurement and Manifestation of the Need to Belong*. Ann Arbor, MI: UMI.
- Kramer, J. B. (2006). Ethical analysis and recommended action in response to the dangers associated with youth consumerism. *Ethics & Behavior*, 16, 291–303. doi:10.1207/s15327019eb1604_2
- Lee, S., & Mysyk, A. (2004). The medicalization of compulsive buying. *Social Science and Medicine*, 58, 1709–1718. doi: 10.1016/S0277-9536(03)00340-X
- Leary, M. R., Kelly, K. M., Cottrell, C. A., & Schreindorfer, L. S. (2013). Construct validity of the need to belong scale: Mapping the nomological network. *Journal of Personality Assessment*, 95, 610–624. doi:10.1080/00223891.2013.819511
- Lee, J., & Shrum, L. J. (2012). Conspicuous consumption versus charitable behavior in response to social exclusion: A differential needs explanation. *Journal of Consumer Research*, 39, 530–544. doi: 10.1086/664039
- Leite, P. L., Filomensky, T. Z., Black, D. W., & Silva, A. C. (2014). Validity and reliability of the Brazilian version of Yale-Brown Obsessive Compulsive Scale–Shopping Version (YBOCS-SV). *Comprehensive Psychiatry*, 55, 1462–1466. doi:10.1016/j.comppsy.2014.04.012
- Liu, W. M. (2011). *Social Class and Classism in the Helping Professions: Research, Theory, and Practice*. Thousand Oaks, CA: Sage.
- MacArthur Foundation. (2007). The MacArthur Scale of Subjective Social Status. Retrieved from <http://www.macses.ucsf.edu/research/psychosocial/subjective.php>

- MacCallum, R. C., Widaman, K. F., Preacher, K. J., & Hong, S. (2001). Sample size in factor analysis: The role of model error. *Multivariate Behavioral Research, 36*, 611–637. doi:10.1207/S15327906MBR3604_06
- MacDonald, G., & Leary, M. R. (2005). Why does social exclusion hurt? The relationship between social and physical pain. *Psychological Bulletin, 131*, 202–223. doi:10.1037/0033-2909.131.2.202
- Manchiraju, S., & Son, J. (2014). Materialistic (and unhappy?) adult now, economically deprived child then: How are felt formative economic deprivation, materialism, and well-being measures related. *Journal of Business and Management Research, 5*, 125–127.
- Mansolf, M., & Reise, S. P. (2017). When and why the second-order and bifactor models are distinguishable. *Intelligence, 61*, 120–129. doi:10.106/j.intell.2017.01.012
- Maraz, A., Griffiths, M. D., & Demetrovics, Z. (2016). The prevalence of compulsive buying: a meta-analysis. *Addiction, 111*(3), 408–419. doi:10.1111/add.13223
- Martin, G., Macdonald, S., Pakula, B., & Roth, E. A. (2014). A comparison of motivations for use among users of crack cocaine and cocaine powder in a sample of simultaneous cocaine and alcohol users. *Addictive Behaviors, 39*, 699–702. doi:10.1016/j.addbeh.2013.10.029
- Mead, N. L., Baumeister, R. F., Stillman, T. F., Rawn, C. D., & Vohs, K. D. (2011). Social exclusion causes people to spend and consume strategically in the service of affiliation. *Journal of Consumer Research, 37*, 902–919. doi:10.1086/656667
- Mortimer, G., Bougoure, U. S., & Fazal-E-Hasan, S. (2015). Development and validation of the Self-Gifting Consumer Behaviour Scale. *Journal of Consumer Behaviour, 14*, 165–179. doi:10.1002/cb.1506
- Müller, A., Mitchell, J. E., & De Zwaan, M. (2015). Compulsive buying. *American Journal on Addictions, 24*, 132–137. doi:10.1111/ajad.12111
- Muthén, L. K., & Muthén, B. O. (1998–2012). *Mplus user's guide* (7th ed.). Los Angeles, CA: Muthén & Muthén.
- O'Guinn, T. C., & Faber, R. J. (1989). Compulsive buying: A phenomenological exploration. *Journal of Consumer Research, 16*, 147–157. doi:10.1086/209204
- 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. doi:10.1177/0146167216689080
- Pirog, S. F., & Roberts, J. A. (2007). Personality and credit card misuse among college students: The mediating role of impulsiveness. *Journal of Marketing Theory and Practice, 15*, 65–77. doi:10.2753/MTP1069-6679150105
- Richins, M. L. (2004). The Material Values Scale: Measurement properties and development of a short form. *Journal of Consumer Research, 31*, 209–219. doi:10.1086/383436
- Richins, M. L., & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. *Journal of Consumer Research, 19*, 303–316. doi:10.1086/209304
- Richins, M. L., McKeage, K. K. R., & Najjar, D. (1992). An Exploration of Materialism and Consumption-Related Affect, in John F. Sherry, Jr. and Brian

- Sternthal, (Eds.) *NA - Advances in Consumer Research Volume 19* (pp. 229–236). Provo, UT: Association for Consumer Research.
- Ridgway, N. M., Kukar-Kinney, M., & Monroe, K. B. (2008). An expanded conceptualization and a new measure of compulsive buying. *Journal of Consumer Research*, 35, 622–639. doi:10.1086/591108
- Roberts, J. A., & Clement, A. (2007). Materialism and satisfaction with over-all quality of life and eight life domains. *Social Indicators Research*, 82(1), 79–92. doi:10.1007/s11205-006-9015-0
- Roberts, J. A., Manolis, C., & Pullig, C. (2014). Contingent self-esteem, self-presentational concerns, and compulsive buying. *Psychology and Marketing*, 31, 147–160. doi:10.1002/mar.20683
- Rubin, M., Denson, N., Kilpatrick, S., Matthews, K. E., Stehlik, T., & Zyngier, D. (2014). “I am working-class.” *Educational Researcher*, 43, 196–200. doi:10.3102/0013189x14528373
- Seepersad, S. (2004). Coping with loneliness: Adolescent online and offline behavior. *CyberPsychology & Behavior*, 7, 35–39. doi:10.1089/109493104322820093
- Silvera, D. H., Lavack, A. M., & Kropp, F. (2008). Impulse buying: The role of affect, social influence, and subjective well-being. *Journal of Consumer Marketing*, 25, 23–33. doi:10.1108/07363760810845381
- Thompson, E. R., & Prendergast, G. P. (2015). The influence of trait affect and the five-factor personality model on impulse buying. *Personality and Individual Differences*, 76, 216–221. doi:10.1016/j.paid.2014.12.025.
- Tobin, D. L., Holroyd, K. A., & Reynolds, R. V. C. (1984). Coping strategies inventory. *CSI Manual*.
- Verplanken, B., & Herabadi, A. (2001). Individual differences in impulse buying tendency: Feeling and no thinking. *European Journal of Personality*, 15(S1), S71–S83. doi:10.1002/per.423
- Wang, J., & Xiao, J. J. (2009). Buying behavior, social support and credit card indebtedness of college students. *International Journal of Consumer Studies*, 33, 2–10. doi:10.1111/j.1470-6431.2008.00719.x
- Wang, R., Liu, H., Jiang, J., & Song, Y. (2017). Will materialism lead to happiness? A longitudinal analysis of the mediating role of psychological needs satisfaction. *Personality and Individual Differences*, 105, 312–317. doi:10.1016/j.paid.2016.10.014
- Zhang, C., Brook, J. S., Leukefeld, C. G., De La Rosa, M., & Brook, D. W. (2017). Compulsive buying and quality of life: An estimate of the monetary cost of compulsive buying among adults in early midlife. *Psychiatry Research*, 252, 208–214. doi:10.1016/j.psychres.2017.03.007
- Zhang, H., Tian, Y., Lei, B., Yu, S., & Liu, M. (2015). Personal relative deprivation boosts materialism. *Basic and Applied Social Psychology*, 37(5), 247–259. doi:10.1080/01973533.2015.1072090
- Zhou, X., & Gao, D. G. (2008). Social support and money as pain management mechanisms. *An International Journal for the Advancement of Psychological Theory*, 19(3-4), 127–144. doi:10.1080/10478400802587679

Author Biographies

Alexander Rice is a Postdoctoral Research Fellow at the Uniformed Services University of the Health Sciences. His research interests are in social class and classism, complicated grief, caregiving, and behavioral health in the military.

Yunkyoung Loh Garrison, MA, is a doctoral student of counseling psychology at the University of Iowa. She received her master's degree in psychology from Yonsei University, Seoul, South Korea. Her research interests include multicultural counseling, the myth of meritocracy, social class and classism, and career issues among underserved populations.

William Ming Liu is professor of Counseling Psychology and Chair of the Department of Counseling, Higher Education, and Special Education at the University of Maryland. His research interests are in men and masculinity, social class and classism, and White privilege and White supremacy.