**Shame-Proneness Predicts Social Psychopathology:
Considering the Sociometer Theory of Shame**

Thomas Carpenter, Oxana Stebbins, Kylie Fraga, and Thane M. Erickson

Seattle Pacific University

Author Note

Thomas Carpenter <https://orcid.org/0000-0002-6967-5044>
Thane M. Erickson <https://orcid.org/0000-0002-2051-8486>

These results were presented as a poster at the 2020 Meeting of the Society for Personality and Social Psychology in New Orleans, LA. We have no conflicts of interest to disclose.

Correspondence concerning this article should be addressed to Thomas P. Carpenter, Department of Psychology, Seattle Pacific University, 3307 3rd Ave W, Suite 107, Seattle, WA 98103, United States. Email: tcarpenter@spu.edu

Abstract

Introduction: The classic *act-person* model of shame-proneness defined shame as originating from negative self-appraisals following wrongful actions, conferring broad vulnerability to psychopathology. However, recent developments postulate that shame may originate from real or imagined social evaluation (*sociometer* view of shame). If so, shame might leave one vulnerable to psychosocial stressors and may manifest in social anxiety specifically, even after accounting for general negative affect. We investigated how shame-proneness predicted concurrent symptoms and prospective responses to interpersonal stressors (social anxiety, feeling evaluated, and other symptoms) over five weeks in a sample including individuals at clinical and subclinical levels of emotional symptoms. **Method:** We oversampled for individuals meeting criteria for anxiety and depressive disorders based on clinical interviews ($n = 58$) and also included those not meeting diagnostic criteria ($n = 101$) to ensure a broad range of symptoms (total $N = 159$). Participants completed baseline measures of shame- and guilt-proneness, trait negative affect (NA), and symptoms of social anxiety, depression, and generalized anxiety disorders followed by symptom diaries for 5 weeks following their worst psychosocial stressors (1,923 diaries). **Results:** As expected, even after controlling for NA and guilt-proneness, shame-proneness uniquely predicted concurrent social anxiety ($\Delta R^2 = 8\%$) and prospectively predicted experiences of social evaluation. Shame-proneness demonstrated weaker links to depression, and no unique links to general anxiety and worry. **Discussion:** Shame-proneness functioned in a manner predicted by sociometer theory, demonstrating specificity for social evaluative symptoms and concerns. Results have implication both for shame theory and clinical practice with shame-prone individuals.

Shame-Proneness Predicts Social Psychopathology:

Considering the Sociometer Theory of Shame

The regulation of emotions, particularly moral emotions, is important for psychopathology (Gross & Jazaieri, 2014). Over the past two decades, social and clinical researchers have focused on guilt and shame—negative emotions that occur following perceived moral and social transgressions (Giner-Sorolla, 2012; Tangney et al., 2007). Moral emotions play a prominent role in psychopathology, both as diagnostic criteria (e.g., lack of remorse in antisocial personality disorder; American Psychiatric Association, 2013) and as predictors of symptom severity (e.g., Kim et al., 2011). Guilt and shame are commonly understood from the perspective of the *act-person model* developed by Tangney and colleagues (Tangney & Dearing, 2002; see Giner-Sorolla, 2012; Tracy & Robins, 2004, 2006), defining guilt as a negative emotion about specific wrongful behaviors and shame as a negative emotion about the self more globally, following behavior. However, recent years have seen the emergence of views that expand on this framework, such as the *sociometer* view of shame (de Hooge, 2014). According to this view, shame reflects a response to others' real or imagined negative evaluations, which carries a threat of rejection or ostracism. One implication may be that shame-proneness leaves one vulnerable to social stressors and social anxiety. We tested this possibility prospectively over five weeks in a sample including individuals meeting criteria for emotional disorders.

Shame and Guilt

The dominant view of shame and guilt in the social/clinical literatures is the *act-person* view, popularized by Tangney and Colleagues (Tangney & Dearing, 2002; Tangney et al., 2007). According to this view, guilt and shame are negative emotions that follow instances of wrongdoing and transgression. Although similar in valence and eliciting circumstance, they

differ in their appraisals, with guilt driven by negative evaluations of behaviors (i.e., *my actions were bad*) and shame driven by negative self-evaluations following behaviors (i.e., *I am bad*; Tangney & Dearing, 2002; Tangney et al., 2007). As articulated by Tracy and Robins (2004, 2006), shame is thus characterized by internal, stable, and uncontrollable attributions, whereas guilt is associated with internal, unstable, and controllable attributions. The act-person view also frames shame as a painful intrapersonal indicator of low or decreased self-worth (Tangney & Dearing, 2002) that is associated with self-condemnation (e.g., Fisher & Exline, 2006) and appraisals of defect and inferiority (Gausel et al., 2016).

The Sociometer View of Shame

Although the act-person view has received broad empirical support, it can be critiqued for an intrapersonal focus with insufficient attention to social context (Wong & Tsai, 2007). The sociometer view of shame (de Hooge, 2014) addresses this limitation, arguing that shame serves as a monitor not only of one's own *internal* appraisals of value but *external* appraisals of *social value* as well. Specifically, the sociometer view argues that individuals monitor their value within the social structure, with shame serving as an alert system that one's social value is damaged, risking ostracism and rejection (de Hooge, 2014; Gilbert et al., 1997). Consequently, shame responses aim to protect social standing, such as hiding evidence of wrongdoing (DeLong & Kahn, 2014), apologizing when it might mitigate damage to reputation (de Hooge et al., 2010), increasing affiliation when doing so may improve reputation (de Hooge et al., 2018), and engaging in nonverbal displays of appeasement to others to reduce aggressive responses (Giner-Sorolla et al., 2008; Keltner, 1995; Martens et al., 2012). This may occur alongside the self-condemnation indicated by the act-person view. Indeed, self-evaluation is itself posited to reflect social standing (Becker et al., 2014; Leary et al., 1995; Reitz et al., 2016). Thus, 'social worth'

and ‘self-worth’ are not unrelated. The sociometer perspective suggests that shame may serve as an ‘alert system’ for both, but explicitly situates shame in real or imagined social contexts.

Shame-Proneness: A Social Vulnerability?

One implication of the sociometer view is that shame-proneness—a dispositional tendency toward shame (Tangney & Dearing, 2002; Tangney et al., 2007)—may leave one vulnerable to social stressors and social anxiety. A sociometric form of shame could leave shame-prone people anxious that others will discover their perceived faults and inadequacies (e.g., Gausel et al., 2016) and shameful secrets (e.g., DeLong & Kahn, 2014), that careful image-curation efforts (e.g., de Hooge et al., 2010, 2018) will be undone, and that they will face *other*-condemnation in addition to *self*-condemnation (Fisher & Exline, 2006). Such a view implies that shame-prone people have much to risk from social interactions, as they carry the threat of painful negative self/other evaluation and resulting shame responses. Consequently, one might expect social interactions to trigger anticipatory social anxiety. In contrast, a view of shame that focuses exclusively on internal feelings of low self-worth (e.g., Tangney & Dearing, 2002) may suggest links with depression, general anxiety, and nonspecific negative affect (e.g., Kim et al., 2011), but it would not suggest unique vulnerability to social stress and social anxiety as implied by the sociometer view.

In support of the above, several studies have found cross-sectional associations among shame, social evaluation, and anxiety. Gilbert (2000) found positive correlations between shame-proneness, trait fear of negative evaluation, perceptions that others see the self as inadequate, and symptoms. Gilbert and Miles (2000) further found that trait fear of negative evaluation was associated with sensitivity to put-downs and shame-proneness. Birchwood et al. (2007) found that individuals with high social anxiety have more shame beliefs regarding their mental illness

than low-social-anxiety groups; however, they did not differentiate shame from guilt and focused exclusively on attitudes toward mental illness. This research demonstrates potential links between shame-proneness and social anxiety, supporting our framework. However, these studies have not assessed social evaluation in reactions to naturalistic psychosocial stressors and most studies have not included participants known to have clinical levels of distress. Further, these studies have largely focused on cross-sectional links between trait measures. We extend this by investigating participants' responses to naturalistic stressors over time. If shame-proneness leaves one vulnerable to these stressors, this should be demonstrable prospectively, with baseline shame-proneness predicting evaluatively-focused responses to these stressors. Also, past shame research has not often tested specificity by accounting for negative affect. Sociometer theory posits that shame is—by definition—particularly *social* in its concerns. Thus, even controlling for general negative affect, we would expect robust links from shame-proneness to social anxiety and evaluative concerns. Further, a failure to control for negative affect in the studies described above represents an important confound; a tendency toward negative affect may well drive shame, depression, and anxiety. A stronger test of this model implies that shame-proneness should predict social anxiety uniquely after controlling for trait negative affect.

We also consider whether such links may exist for psychopathology dimensions that do not explicitly reference social symptoms (e.g., depression, general anxiety). A propensity to self-condemn may leave one vulnerable to these pathologies, and past studies have found associations with depression (Andrews et al., 2002; Kim et al., 2011; Young et al., 2016) and anxiety (Fergus et al., 2010; Hedman et al., 2013; Tangney et al., 1992). There also are likely 'social' components to these disorders that leave sufferers vulnerable to a sociometric shame: interpersonal models have been proposed not only for social anxiety (Alden & Taylor, 2010), but

also for depression (Hames et al., 2013) and generalized anxiety disorder (Newman & Erickson, 2010). These models postulate ways in which distressed individuals engage in social behaviors (e.g., avoiding vulnerability, chronic reassurance-seeking, excessively cold or warm behavior) that elicit negative responses from others, perpetuating symptoms. On the other hand, only social anxiety explicitly incorporates interpersonal symptoms (e.g., fear and avoidance of social evaluation) in DSM-V diagnostic criteria. In the present research, we test the specificity of links of shame to social anxiety in particular, but also explore the possibility of any unique links of shame to depression and generalized anxiety symptoms.

Hypotheses

We tested the prediction that shame-proneness would uniquely predict social anxiety cross-sectionally, and prospectively predict social evaluative concerns following interpersonal stressors. We recruited a sample which included individuals with a broad range of symptoms—including a subset with clinician-diagnosed anxiety and depressive disorders. At baseline, we assessed shame-proneness and symptoms to investigate concurrent links to three symptom dimensions (social anxiety, depression, and generalized anxiety). Subsequently, participants completed diaries about their three worst psychosocial stressors per week and associated symptoms for 5 weeks. We expected moderate or larger associations between shame-proneness and social anxiety; we also expected that shame-proneness would predict greater social-evaluative concerns in response to daily interpersonal stressors (e.g., perceived negative evaluation, goal striving to socially promote/protect desired self-images). Finally, we hypothesized that links between shame-proneness and social anxiety / evaluative concerns would uniquely persist even when controlling for shared variance in negative affectivity. As an exploratory analysis, we also assessed whether such links would be found for depression and

general anxiety/worry, symptom dimensions that do not explicitly feature concerns of social scrutiny.

Method

Participants

Participants included 159 undergraduate students at a private liberal arts university (76% female, 24% male), ranging from 18-31 years old ($M = 19.50$, $SD = 2.07$). Participants self-identified as Caucasian/White (50.3%), Asian/Asian American (20.8%), Latinx/Hispanic (11.3%), Multiracial (8.8%), Black/African American (3.8%), Middle Eastern (1.3%), and Pacific Islander (0.6%), or declined to respond (3.1%). Information regarding diagnoses are reported below. Participants were recruited from psychology courses and received course credit and \$15 compensation as part of a larger prospective study on interpersonal stress, wellbeing, and hair cortisol (see Supplement for a list of all measures).

Procedure

Consenting participants completed online baseline measures of demographics, shame- and guilt-proneness, and trait negative affect. Following baseline, participants completed online stressor interaction diaries three times per week for five weeks (15 total). Each survey prompted individuals to describe the most stressful social interaction they had in the past two or three days. Social interactions were defined as lasting at least five minutes and resulting in the individual changing their behavior, consistent with diary studies of social interaction (e.g., Conner et al., 2009; Moskowitz et al., 2009). Diary surveys assessed momentary feelings of negative evaluation, self-image goals, worry, anxiety, and depressed mood. After the completion of the experience sampling, participants visited a lab to undergo a diagnostic interview.

Measures

Clinical Disorders Screening

Symptoms (e.g., social and general anxiety, depression) occur transdiagnostically along a dimensional spectrum of severity and occur outside of the disorders most associated with them (Cuthbert & Insel, 2013), and we wished to include participants at both subclinical and clinical levels of symptoms. To assess clinical severity, we used an abridged Anxiety Disorders Interview Schedule for the Diagnostic and Statistical Manual of Mental Disorders (ADIS-5; Brown & Barlow, 2014). This structured clinical interview screened for common anxiety (e.g., social anxiety disorder, GAD, obsessive compulsive disorder, panic disorder, etc.) and mood (e.g., major depression) disorders. Abbreviated forms of the ADIS focus on current diagnoses when past diagnostic history is irrelevant to current symptoms and study inclusion (Michelson et al., 2011). Initial screener questions, when answered affirmatively, required querying diagnostic criteria for each disorder to determine the presence of diagnosis. The interview followed prompts and wording of the full ADIS-5 with a few exceptions, such as endorsing the presence versus absence of symptoms rather than rating each on a 9-point (0-8) Likert scale. However, assessors utilized standard ADIS-5 ratings for overall distress and impairment (“How much does it bother you/interfere?”), ranging from 0 (*none*) to 8 (*very severe*), with a score of 4 reflecting the clinical cut-off, consistent with the full version.

Two clinical psychology doctoral trainees, both of whom were trained and experienced in administering the full ADIS-5, administered diagnostic interviews. The full ADIS-5 was revised to reflect updated criteria of the DSM-5 from the ADIS-IV (Brown et al., 1994), which has excellent interrater and test-retest reliability, and concurrent validity (Brown et al., 1994, 2001). In this sample, those meeting clinical criteria for a primary diagnosis of social anxiety disorder, GAD, or depressive disorder were $n = 16$ (10%), 14 (9%), and 8 (5%), respectively. A total of 58

participants (36.4%) met criteria for any primary anxiety or mood disorder, so the sample included a substantial percentage of individuals with clinical levels of symptoms.

Baseline Measures

Shame-Proneness. The Test of Self-Conscious Affect-3 (TOSCA-3 short form; Tangney et al., 2000) measures shame-proneness and guilt-proneness. Items assessing other self-conscious emotions (i.e., externalized blame, detachment/unconcern, pride) were excluded. The short form includes 11 scenarios (e.g., “You are driving down the road, and you hit a small animal.”) Participants rate the likelihood of provided reactions using a 1 (*not likely*) to 5 (*very likely*) scale. The shame and guilt-proneness scales assess the tendency to respond with shame (e.g., “You would think: ‘I’m terrible’”; $\alpha = .79$) and guilt (e.g., “You’d feel bad you hadn’t been more alert driving down the road”; $\alpha = .83$). Responses were summed into total scores ranging from 11 to 55, with higher scores indicating higher shame or guilt-proneness. Research supports the TOSCA’s validity and reliability (Tangney, 1996; Tangney et al., 1996) and factor structure (Luyten et al., 2002). Guilt-proneness was used as a covariate to assess for guilt-free shame (Tangney & Dearing, 2002).

Symptom Severity. Depression symptoms over the past two weeks were measured with the Patient Health Questionnaire (PHQ-9; Kroenke et al., 2001), with nine items rated on a 0 (*not at all*) to 3 (*nearly every day*) scale. Items assess symptoms such as dysphoric mood, appetite changes, and concentration trouble, with summed total scores ranging 0-27. Higher scores indicate greater symptoms, with cut-offs indicating mild (≥ 5), moderate (≥ 10), moderately severe (≥ 15), and severe depression (≥ 20). Scale responses were internally consistent, $\alpha = .89$.

Social anxiety at baseline was assessed by the short form of the Social Interaction Anxiety Scale (SIAS-6; Peters et al., 2012) which includes six items rated on a 0 (*not at all*

characteristic or true of me) to 4 (*extremely characteristic or true of me*) scale. Sample items include, “I have difficulty making eye contact with others.” Summed total scores range 0 to 24, with higher scores representing higher symptomatology ($\alpha = .81$ in this sample).

Generalized anxiety was assessed via the Generalized Anxiety Disorder Questionnaire (GAD-Q-IV; Newman et al., 2002), a self-report tool that maps onto DSM-IV GAD criteria and includes a combination of item types (e.g., yes/no, listing, check mark, Likert ratings). Respondents indicated worry during the prior six months, cognitive and somatic anxiety symptoms, and distress and interference caused by these symptoms. Scores range from 0-13, with higher scores indicating greater severity. It has demonstrated convergent and discriminant validity as well as reliability (Newman et al., 2002).

Trait negative affect (NA) was assessed with the Personality Inventory for DSM-5 brief form (PID-5-BF) for adults (APA, 2013b; Krueger et al., 2012), a 25-item measure of pathological personality traits. Five items comprised the negative affect scale ($\alpha = .74$ in this sample). Sample items include, “I get emotional easily, often for very little reason,” and “I get irritated easily by all sorts of things.” Participants rated items on a 4-point scale (0 = *very false or often false*; 3 = *very true or often true*). Scores ranged 0 to 4; higher scores indicated greater pathology. Studies have confirmed the factor structure of the broader PID-5-BF and psychometric properties (e.g., Bach et al., 2016; Gomez et al., 2020).

Diary Measures

Stressor-specific perceptions. All diary items were “event anchored”: participants described the worst psychosocial stressor in the past two or three days, followed by rating aspects of the experience or their response. Negative social evaluation was measured with a single item asking “To what extent did this stressful event involve the following? ... I felt

negatively evaluated or judged by someone.” Participants then rated their perception of the interaction on a slider scale (0 = *not at all*, 50 = *moderately*, 100 = *extremely*). We also assessed worry after each interpersonal stressor with a single item asking “What did you do in response to the other person? ... I started worrying and could not stop.” The item was rated by participants on a scale from 0 (*not at all*) to 4 (*extremely*). Single-item interpersonal assessments have been used in studies with comparable methods (e.g., EMA; Scott et al., 2017). Single-item measures are typically sufficient and perform similarly to larger measures in experience sampling designs (Fisher & To, 2012; van Hooff et al., 2007).

Participants’ self-image goals in the context of the stressful interaction were assessed using three items from previous diary studies (Crocker & Canevello, 2008). Self-image goals represent maintaining and defending desired views of the self during interactions. Participants were asked, “During the interaction, to what extent did you want to or try to...”, and items included both approach (“convince others that you are right”; “get the other person to recognize or identify your positive qualities”) and avoidance goals (“avoid showing your weakness”), rated on a 1 (*not at all*) to 5 (*always*) scale and then averaged (ranging 0 to 3). Crocker and Canevello provided evidence for reliability and validity of the longer measure. Variance partitioning for MLM data (Shrout & Lane, 2012) provided evidence of reliability in this sample (.92).

Stressor-specific negative moods. Anxious and dysphoric mood states were rated for each social stressor on Profile of Mood States (POMS; McNair et al., 1971) items utilized in other diary studies (Shrout et al., 2006). Three items for anxiety (“on edge,” “anxious,” and “nervous”) and dysphoria (“sad,” “discouraged,” and “hopeless”) were rated on a 0 (*not at all*) to 4 (*extremely*) scale. Variance components analysis showed reliability in our sample (.91).

Data Analytic Plan

We conducted two sets of analyses. To account for gender imbalance in the sample and because gender effects manifest in guilt/shame associations (Carpenter et al., 2019), we controlled for gender in all analyses. We first assessed relationships between shame-proneness and social anxiety, depression, and generalized anxiety symptoms at baseline, both before (multiple regressions) and after controlling for negative affect (stepwise hierarchical multiple regressions). For the latter, Step 1 included only gender and baseline NA as a predictor, Step 2 added baseline guilt-proneness, and Step 3 added baseline shame-proneness. This allowed us to test whether shame-proneness predicted unique variance in symptoms beyond covariance with guilt (i.e., ‘guilt-free’ shame; Tangney & Dearing, 2002) and beyond general negative affect. This was done with social anxiety, depressive symptoms, and generalized anxiety symptoms.

The second set of analyses assessed the degree to which shame-proneness prospectively predicted outcomes in response to interpersonal stressors over time using multilevel modeling (MLM). Data were organized with Level 1 variables (diary outcomes) nested within Level 2 (participants). Level 2 predictors were shame-proneness, guilt-proneness (covariate), and NA and gender (covariates) measured at baseline; Level 1 outcome variables (within-person repeated measures) included depressed mood, perceived negative evaluation, self-image goals, worry, and anxious mood. Tests of unconditional (“outcomes-only”) models showed significant variance in intercepts, so all models assumed random intercepts. We used an autoregressive (AR1) covariance structure for repeated measures data and calculated maximum likelihood (ML) parameter estimates. Baseline predictors were grand-mean centered (except gender), whereas daily predictors were person-mean-centered to reflect deviations above from each participant’s average daily levels (Kreft & de Leeuw, 1998). Gender, trait NA, guilt-proneness, and shame-proneness were included as simultaneous predictors in the models to obtain the unique social

effects of shame. All data and code for this project can be found at <https://osf.io/vkr6m/>.

Results

Preliminary Analyses

Table 1

Descriptive Statistics

Variable	Range		<i>M</i>	<i>SD</i>
	Min	Max		
Baseline Outcomes				
Shame-proneness	14	51	34.56	8.01
Guilt-proneness	28	55	45.54	5.86
Negative affect	0	3	1.27	0.69
Social anxiety	0	23	6.97	4.58
Depression	0	26	8.26	5.99
GAD	0	13	6.35	3.00
Weekly Outcomes				
Negative evaluation	0	100	35.80	35.65
Self-image goals	1	5	2.44	1.05
Depressed mood	0	4	1.15	1.04
Worried	0	4	1.16	1.32
Anxious mood	0	4	1.66	1.11

Note. Depression = depression symptoms (PHQ-9), Social anxiety = social anxiety symptoms (SIAS), GAD = generalized anxiety disorder symptoms (GAD-7).

Analyses were conducted in IBM SPSS (version 26.0). Preliminary data screening suggested no problematic departures from normality. Descriptive are given in Table 1. Participants completed 1,923 diary records, an average of $M = 13.46$ per person ($SD = 2.71$). Of those, data were 98.16% complete.

Shame Predicting Concurrent Symptoms

We first examined the unique roles of guilt- and shame-proneness in social anxiety, depressive symptoms, and general anxiety symptoms without controlling for negative affect. Whereas guilt-proneness predicted *lower* social anxiety ($\beta = -.19, p = .019$) shame-proneness predicted *higher* social anxiety ($\beta = .41, p < .001$) as expected. Shame-proneness similarly

predicted higher symptoms, beyond non-significant effects of guilt, for general depression symptoms ($\beta = .34, p < .001$; $\beta = -.13, p = .115$) and anxiety symptoms ($\beta = .27, p = .002$; $\beta = -.10, p = .253$), respectively. Shame-proneness significantly increased variance explained for all three symptom types ($\Delta R^2 = .15; .10; .06$) but left open the possibility that these associations might be explained at least in part by shared negative affective variance.

Thus, hierarchical regressions tested whether shame-proneness uniquely predicted symptoms beyond gender and trait NA (see Table 2). Unsurprisingly, in Step 1, NA predicted concurrent baseline social anxiety, depressive, and GAD symptoms. NA accounted for 15%, 32%, and 41% ($p < .001$) of the variance in these symptoms, respectively. In Step 2, guilt-proneness did not predict any baseline symptoms beyond NA. In Step 3, as expected, shame-proneness explained an additional 8% ($p < .001$) of the variance in social anxiety, 3% ($p = .03$) of the variance in depression, but no significant additional variance in GAD symptoms (beyond NA and guilt). Thus, as hypothesized, shame-proneness predicted social anxiety after controlling for NA and guilt-proneness, suggesting specificity. A weaker but similar pattern was observed for depressive symptoms and not for GAD symptoms.

Shame Prospectively Predicting Negative Daily Outcomes

We tested whether baseline NA, guilt-proneness, and shame-proneness prospectively predicted daily outcomes over 5 weeks, and specifically whether shame-proneness would uniquely predict social-evaluative experiences (i.e., feeling evaluated, self-image goals) beyond NA and guilt-proneness. We first ran this analysis without controlling NA (Table 3). In this model, shame-proneness predicted downstream perceived negative evaluation, self-image goals, and depressed mood (see Table 3); guilt-proneness predicted lower evaluation. We repeated the analysis controlling NA (Table 4). In this model, trait NA predicted higher levels of all

Table 2
Hierarchical Regression Analyses with Shame-Proneness Predicting Symptoms

	Social Anxiety				Depression				GAD			
	β	p	R^2	ΔR^2	β	p	R^2	ΔR^2	β	p	R^2	ΔR^2
Step 1			.15	.15***			.32	.32***			.39	.39***
Gender	.08	.283			.02	.832			-.01	.890		
NA	.37***	<.001			.56***	<.001			.63***	<.001		
Step 2			.15	.00			.32	.00			.39	.00
Gender	.09	.261			.01	.855			-.01	.847		
NA	.36***	<.001			.56***	<.001			.63***	<.001		
Guilt Pr	-.03	.670			.01	.874			.02	.712		
Step 3			.23	.08***			.34	.03*			.40	.01
Gender	.02	.751			-.03	.708			-.03	.649		
NA	.30***	<.001			.52***	<.001			.61***	<.001		
Guilt Pr	-.12 [†]	.056			-.06	.426			-.01	.885		
Shame Pr	.32***	<.001			.19*	.014			.09	.217		

Note. Gender = female gender; NA = Negative Affect; Guilt Pr = Guilt-Proneness; Shame Pr = Shame-Proneness; GAD = Generalized Anxiety Disorder. b = unstandardized slope; SE = standard error; R^2 = variance; ΔR^2 = change in variance between steps. Bolded font indicates significant p value. * $p < .05$; ** $p < .01$; *** $p < .001$; [†] $p < .10$.

Table 3

Multilevel Models for Shame-Proneness Prospectively Predicting Daily Negative Outcomes Following Social Stressors, Controlling for Gender and Guilt-Proneness

Outcome	Predictor: Female Gender			Predictor: Guilt-Proneness			Predictor: Shame-Proneness		
	<i>b</i>	<i>SE</i>	95% CI	<i>b</i>	<i>SE</i>	95% CI	<i>b</i>	<i>SE</i>	95% CI
Neg Eval	0.25	3.92	[-7.48, 7.99]	-0.60*	0.29	[-1.18, -0.02]	0.66**	0.23	[0.21, 1.10]
Self-Image	-0.12	0.14	[-0.41, 0.16]	0.01	0.01	[-0.02, 0.03]	0.02	0.01	[0.0004, 0.03]
Depr Mood	0.02	0.13	[-0.24, 0.28]	-0.02 [†]	0.01	[-0.04, 0.003]	0.02*	0.01	[0.004, 0.03]
Worried	0.24	0.16	[-0.7, 0.54]	-0.02 [†]	0.01	[-0.04, 0.002]	0.02 [†]	0.01	[-0.002, 0.03]
Anx Mood	0.15	0.14	[-0.14, 0.45]	-0.01	0.01	[-0.03, 0.01]	0.01	0.01	[-0.005, 0.03]

Note. Neg Eval = feeling negatively evaluated; Self-Image = self-image goals; Depr Mood = depressed mood; Anx Mood = anxious mood. *b* = unstandardized slope; *SE* = standard error; CI = confidence interval. Bolded font indicates significant *p* value.

p* < .05, *p* < .01, ****p* < .001, [†]*p* < .10

Table 4

Multilevel Models for Shame-Proneness Prospectively Predicting Daily Negative Outcomes Following Social Stressors, Controlling for Negative Affect

Outcome	Predictor: Female Gender			Predictor: Negative Affect			Predictor: Guilt			Predictor: Shame		
	<i>b</i>	<i>SE</i>	95% <i>CI</i>	<i>b</i>	<i>SE</i>	95% <i>CI</i>	<i>b</i>	<i>SE</i>	95% <i>CI</i>	<i>b</i>	<i>SE</i>	95% <i>CI</i>
Neg Eval	-1.49	3.86	[-9.11, 6.13]	6.61^{**}	2.34	[1.98, 11.25]	-0.48	0.29	[-1.05, 0.09]	0.49[*]	0.22	[0.04, 0.94]
Self-Image	-0.20	-0.14	[-0.48, 0.08]	0.30^{***}	0.09	[0.13, 0.47]	0.01	0.01	[-0.01, 0.03]	0.01	0.01	[-0.01, 0.03]
Depr Mood	-0.09	0.12	[-0.33, 0.15]	0.41^{***}	0.07	[0.26, 0.56]	-0.01	0.01	[-0.03, 0.01]	0.01	0.01	[-0.01, 0.02]
Worried	0.10	0.14	[-0.18, 0.38]	0.49^{***}	0.09	[0.32, 0.66]	-0.01	0.01	[-0.03, 0.01]	0.004	0.01	[-0.01, 0.02]
Anx Mood	0.04	0.14	[-0.24, 0.32]	0.41^{***}	0.09	[0.23, 0.58]	-0.001	0.01	[-0.02, 0.02]	0.002	0.01	[-0.01, 0.02]

Note. Neg Eval = feeling negatively evaluated; Self-Image = self-image goals; Depr Mood = depressed mood; Anx Mood = anxious mood. *b* = unstandardized slope; *SE* = standard error; *CI* = confidence interval. Bolded font indicates significant *p* value.

p* < .05, *p* < .01, ****p* < .001, **p* < .05, ***p* < .01, ****p* < .001, † *p* < .10

symptoms, and guilt predicted none, but shame-proneness uniquely predicted feeling negatively evaluated, as expected, but did not reach significance for self-image goals or daily depressed mood, worry, or anxious mood after adjusting for covariates (see Table 4).

Discussion

Whereas many studies have examined shame as a risk factor for psychopathology broadly, and several studies have investigated links of shame and social anxiety, the present study aimed to test the specificity of this link beyond general negative affect and in contrast to prediction of less explicitly “social” symptoms (e.g., depression and anxiety). In both concurrent and prospective models in a sample including individuals meeting criteria for emotional disorders, results generally supported our hypotheses.

First, prior to controlling for general tendencies toward negative affect (as well as gender and guilt-proneness), shame-proneness predicted a broader range of symptoms. Namely it concurrently predicted social anxiety, general anxiety, and depression symptoms, and prospectively predicted subsequent experiences of feeling evaluated, striving in social interactions to get others to see one in line with desired self-image, and depression symptoms. These effects were consistent with the general notion of shame as a nonspecific risk-factor for distress. Given that depression and anxiety are generally associated with negative schemas about the self, these findings might be taken as consistent with the act-person theory of shame. However, most prior studies on shame and social anxiety have not controlled for negative affect (e.g., Gilbert, 2000; Gilbert & Miles, 2000), and NA may represent an important confound if it typifies negative self-appraisals in general.

Thus, we re-conducted our analyses with trait NA as a covariate, providing a more stringent test of specificity. Relationships of outcomes with shame tended to be smaller after

controlling for trait NA, as would be expected given their conservative nature, but generally were consistent with a sociometer view of shame (de Hooze, 2014). Examining concurrent effects at baseline, a dispositional tendency toward shame explained additional variance in baseline social anxiety, even after accounting for overlap with guilt and negative affect in general. Conversely, we found no evidence that shame-proneness predicts unique variance in *general* anxiety, suggesting the possibility that past associations of shame with anxiety may be due to nonspecific negative affectivity. In contrast, shame appeared to contribute uniquely to only social anxiety.

Similar results were observed when examining the prospective interpersonal diary data. When baseline tendencies in negative affect, guilt-proneness, and shame-proneness were used as predictors of several outcomes following interpersonal stressors during the 5-week period, shame-proneness uniquely predicted additional downstream variance in feeling negatively evaluated or judged by others in the context of psychosocial stressors. In contrast, shame-proneness did not uniquely predict general depressed mood or general worry following the events. In other words, even after negative affect was controlled, shame-proneness appeared to have sociometric functions.

Unexpectedly, shame-proneness did not uniquely predict self-image goals in daily stressors, such as attempts to convince the other party that one is correct. Although these responses are not sociometric per se, they are consistent with some shame-defensive responses and action tendencies (e.g., Leach & Cidam, 2015; Stuewig et al., 2009). At present, the reason for this is unclear. One possibility is that this may reflect shame's tendency to drive a variety of reparative response tendencies (Leach & Cidam, 2015). Although efforts to win arguments or avoid showing weakness may project an image of strength, they may not be conducive to alleviating judgment or negative evaluation from others. Whereas shame-proneness clearly

predicted experiencing the self as the recipient of judgment, it may not guarantee that individuals respond to this stressor with overt strivings to promote or defend one's self-image, suggesting the possibility of processes that moderate that connect (e.g., Leach & Cidam, 2015). This remains a question for future research.

One open question in the present study was the degree to which shame-proneness might uniquely predict depression. On one hand, the act-person model of shame might make sense of this link by the fact that both shame and depression involve internal, stable, and global attributions and negative self-schemas. On the other hand, interpersonal models of depression suggest that negative self-evaluation and interpersonal processes are profoundly connected (e.g., Hames et al., 2013; Horowitz, 2004). For instance, one's negative self-directed appraisal and emotions, as well as negative social expectations (i.e., thwarted belongingness) can lead individuals to engage in problematic interpersonal behaviors such as social withdrawal, reassurance seeking, or coldness. In turn, such behaviors can negatively impact others, engender exclusion, and confirm the negative self- and social perceptions causing them. Nonetheless, after controlling for negative affect, shame proneness in our study predicted concurrent depression symptoms but not daily depression levels, suggesting a less consistent effect than those on social anxiety and social evaluation.

The present results have implications for how shame-prone individuals navigate social stressors. Although shame research has long posited that shame-prone individuals may struggle with negative self-directed affect (Tangney & Dearing, 2002), the present results suggest that shame-prone individuals may be particularly concerned with how others see them and experience explicitly social distress. This may add important interpersonal dynamics to shame that have received little attention in the literature. For example, if shame is largely sociometric, the

avoidance exhibited by shame-prone individuals (e.g., Cohen et al., 2011) may be driven at least in part by concerns of others' evaluations rather than solely avoidance of self-directed affect.

One implication may be that shame-prone individuals may benefit especially from learning to attend to social cues that indicate that others do approve of them or cues that express perceptions of social value. As a corollary, shame-prone individuals might benefit particularly from forms of psychotherapy that help them develop or accept compassion toward the self, such as Compassion Focused Therapy (Gilbert, 2009) or lovingkindness meditation (e.g., Jazaieri et al., 2013).

Alternatively, a sociometric view might suggest benefits of interpersonal skills training focused on prosocial behaviors that function to indirectly enhance social acceptance and group standing—as a means to shift one's perceived social “value” in groups, in contrast to more intrapersonal treatments aiming to shift globally negative self-appraisals. Alternatively, the choice of one's reference group might be a target for intervention (e.g., evaluating oneself based on internal representations of which social groups? Family? Community? Religious groups?). Presumably, some groups may be more accepting than others; attempts to shift *which* relationships lay the foundation for internal evaluation may be a fruitful avenue for future invention work.

The sociometric model of shame more broadly may also have value in understanding the social etiology of problematic shame. For example, bullying and peer-victimization appear to lead to internalized shame (Irwin et al., 2019a, 2019b) in part perhaps because such actions communicate to people that lack social value. A similar argument could be made with respect to the link between adverse childhood experiences (ACEs) and shame (Wojcik et al., 2019). Indeed, it raises the possibility that gender disparities in social experience might, in part, explain why women trend higher in shame-proneness than do men (Carpenter et al., 2019). Although this

research has tended to not be conducted from the sociometric perspective, future research could seek to consider the role of sociometric judgments and social anxiety these domains. It could also provide a lens for intervention.

Limitations and Conclusion

We note several limitations. First, our study relied largely on self-report, although we do note that clinician-based observer ratings were part of the diagnostic process. Retrospective biases are possible, and causal conclusions cannot be made given the cross-sectional and prospective methods. Additionally, although the study included individuals meeting diagnostic criteria for emotional disorders, these were not treatment-seeking patients at a clinic and thus not all conclusions may generalize to that population. Lastly, we utilized several brief or single-item measures in the diary portion to minimize participant burden, but future studies should employ more fine-grained and thorough assessment of relevant constructs such as social evaluation.

Nonetheless, several contributions of the study warrant mention. The inclusion of high-distress individuals rated via interview as experiencing symptoms at a clinical level, as well as subclinical individuals, ensured inclusion of participants across a broad range of symptoms and functioning. Moreover, whereas much of the shame research has been cross-sectional, our prospective design showed that shame-proneness as a trait conferred unique risk for particular symptoms in the context of daily stressful events. In addition, beyond controlling for guilt proneness, controlling for negative affect provided a more conservative test of hypotheses derived from the sociometer theory of shame, suggesting evidence for unique associations consistent with that view.

Conclusion

The present study provides further support for the view that shame is fundamentally

concerned with one's social worth—the sociometric view—which has received little attention to date. In addition to providing insight into the nature of the anxiety felt by shame-prone individuals, we hope that this work leads others to consider shame from a sociometric lens.

References

- Alden, L. E., & Taylor, C. T. (2010). *Interpersonal processes in social anxiety disorder*. In J. G. Beck (Ed.), *Interpersonal processes in the anxiety disorders: Implications for understanding psychopathology and treatment* (p. 125–152). American Psychological Association. <https://doi.org/10.1037/12084-005>
- American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
- American Psychiatric Association. (2013b). The Personality Inventory for DSM–5—Brief Form (PID-5-BF)—Adult. Retrieved from <http://www.psychiatry.org/practice/dsm/dsm5/online-assessment-measures#> Personality
- Andrews, B., Qian, M., & Valentine, J. D. (2002). Predicting depressive symptoms with a new measure of shame: The Experience of Shame Scale. *British Journal of Clinical Psychology*, 41, 29–42. <https://doi.org/10.1348/014466502163778>
- Bach, B., Maples-Keller, J. L., Bo, S., & Simonsen, E. (2016). The alternative DSM–5 personality disorder traits criterion: A comparative examination of three self-report forms in a Danish population. *Personality Disorders: Theory, Research, and Treatment*, 7, 124–135. <https://doi.org/10.1037/per0000162>
- Becker, M., Vignoles, V. L., Owe, E., Easterbrook, M. J., Brown, R., Smith, P. B., Bond, M. H., Regalia, C., Manzi, C., Brambilla, M., Aldhafri, S., González, R., Carrasco, D., Paz Cadena, M., Lay, S., Schweiger Gallo, I., Torres, A., Camino, L., Özgen, E., ... Koller, S. H. (2014). Cultural bases for self-evaluation: Seeing oneself positively in different cultural contexts. *Personality and Social Psychology Bulletin*, 40(5), 657–675. <https://doi.org/10.1177/0146167214522836>

- Birchwood, M., Trower, P., Brunet, K., Gilbert, P., Iqbal, Z., & Jackson, C. (2007). Social anxiety and the shame of psychosis: A study in first episode psychosis. *Behaviour Research and Therapy*, 45(5), 1025–1037. <https://doi.org/10.1016/j.brat.2006.07.011>
- Brown, T. A., & Barlow, D. H. (2014). *Anxiety and related disorders interview schedule for DSM-5 (ADIS-5)*. New York, NY: Oxford University Press.
- Carpenter, T. P., Isenberg, N., & McDonald, J. (2019). The mediating roles of guilt- and shame-proneness in predicting self-forgiveness. *Personality and Individual Differences*, 145, 26–31. <https://doi.org/10.1016/j.paid.2019.03.013>
- Cohen, T. R., Wolf, S. T., Panter, A. T., & Insko, C. A. (2011). Introducing the GASP scale: A new measure of guilt and shame proneness. *Journal of Personality and Social Psychology*, 100, 947. <https://doi.org/10.1037/a0022641>
- Conner, T. S., Tennen, H., Fleeson, W., & Barrett, L. F. (2009). Experience sampling methods: A modern idiographic approach to personality research. *Social and Personality Psychology Compass*, 3, 292–313. <https://doi.org/10.1111/j.1751-9004.2009.00170.x>
- Cuthbert, B. N., & Insel, T. R. (2013). Toward the future of psychiatric diagnosis: The seven pillars of RDoC. *BMC Medicine*, 11, 1–8. <https://doi.org/10.1186/1741-7015-11-126>
- Crocker, J., & Canevello, A. (2008). Creating and undermining social support in communal relationships: The role of compassionate and self-image goals. *Journal of Personality and Social Psychology*, 95, 555–575. <https://doi.org/10.1037/0022-3514.95.3.555>
- de Hooge, I. E. (2014). The general sociometer shame: Positive interpersonal consequences of an ugly emotion. In K. Lockheart (Ed.), *Psychology of Shame: New Research* (pp. 95–109).

- de Hooge, I. E., Breugelmans, S. M., Wagemans, F. M. A., & Zeelenberg, M. (2018). The social side of shame: Approach versus withdrawal. *Cognition and Emotion*, 32(8), 1671–1677.
<https://doi.org/10.1080/02699931.2017.1422696>
- de Hooge, I. E., Zeelenberg, M., & Breugelmans, S. M. (2010). Restore and protect motivations following shame. *Cognition and Emotion*, 24, 111–127.
<https://doi.org/10.1080/02699930802584466>
- DeLong, L. B., & Kahn, J. H. (2014). Shameful secrets and shame-prone dispositions: How outcome expectations mediate the relation between shame and disclosure. *Counselling Psychology Quarterly*, 27, 290–307. <https://doi.org/10.1080/09515070.2014.908272>
- Fergus, T. A., Valentiner, D. P., McGrath, P. B., & Jencius, S. (2010). Shame- and guilt-proneness: Relationships with anxiety disorder symptoms in a clinical sample. *Journal of Anxiety Disorders*, 24, 811–815. <https://doi.org/10.1016/j.janxdis.2010.06.002>
- Fisher, M. L., & Exline, J. J. (2006). Self-forgiveness versus excusing: The roles of remorse, effort, and acceptance of responsibility. *Self and Identity*, 5, 127–146.
<https://doi.org/10.1080/15298860600586123>
- Fisher, C. D., & To, M. L. (2012). Using experience sampling methodology in organizational behavior. *Journal of Organizational Behavior*, 33, 865–877.
<https://doi.org/10.1002/job.1803>
- Gausel, N., Vignoles, V. L., & Leach, C. W. (2016). Resolving the paradox of shame: Differentiating among specific appraisal-feeling combinations explains pro-social and self-defensive motivation. *Motivation and Emotion*, 40, 118–139.
<https://doi.org/10.1007/s11031-015-9513-y>

- Gilbert, P. (1997). The evolution of social attractiveness and its role in shame, humiliation, guilt and therapy. *British Journal of Medical Psychology*, 70, 113–147.
<https://doi.org/10.1111/j.2044-8341.1997.tb01893.x>
- Gilbert, P. (2000). The relationship of shame, social anxiety and depression: The role of the evaluation of social rank. *Clinical Psychology & Psychotherapy*, 7(3), 174–189.
[https://doi.org/10.1002/1099-0879\(200007\)7:3<174::AID-CPP236>3.0.CO;2-U](https://doi.org/10.1002/1099-0879(200007)7:3<174::AID-CPP236>3.0.CO;2-U)
- Gilbert, P. (2009). Introducing compassion-focused therapy. *Advances in Psychiatric Treatment*, 15, 199–208. <https://doi.org/10.1192/apt.bp.107.005264>
- Gilbert, P., & Miles, J. N. V. (2000). Sensitivity to social put-down: It's relationship to perceptions of social rank, shame, social anxiety, depression, anger and self-other blame. *Personality and Individual Differences*, 29(4), 757–774. [https://doi.org/10.1016/S0191-8869\(99\)00230-5](https://doi.org/10.1016/S0191-8869(99)00230-5)
- Giner-Sorolla, R. (2012). *Judging Passions: Moral Emotions in Persons and Groups*. Psychology Press.
- Giner-Sorolla, R., Castano, E., Espinosa, P., & Brown, R. (2008). Shame expressions reduce the recipient's insult from outgroup reparations. *Journal of Experimental Social Psychology*, 44(3), 519–526.
- Gomez, R., Watson, S., & Stavropoulos, V. (2020). Personality inventory for DSM–5, Brief Form: Factor structure, reliability, and coefficient of congruence. *Personality Disorders: Theory, Research, and Treatment*, 11, 69–77. <https://doi.org/10.1037/per0000364>
- Gross, J. J., & Jazaieri, H. (2014). Emotion, emotion regulation, and psychopathology: An affective science perspective. *Clinical Psychological Science*, 2(4), 387–401.
<https://doi.org/10.1177/2167702614536164>

- Hames, J. L., Hagan, C. R., & Joiner, T. E. (2013). Interpersonal processes in depression. *Annual Review of Clinical Psychology*, 9, 355-377. <https://doi.org/10.1146/annurev-clinpsy-050212-185553>
- Hedman, E., Ström, P., Stünkel, A., & Mörtberg, E. (2013). Shame and Guilt in Social Anxiety Disorder: Effects of Cognitive Behavior Therapy and Association with Social Anxiety and Depressive Symptoms. *PLOS ONE*, 8, e61713. <https://doi.org/10.1371/journal.pone.0061713>
- Horowitz, L. M. (2004). *Interpersonal foundations of psychopathology*. Washington, DC: American Psychological Association. doi:10.1037/10727-001
- Irwin, A., Li, J., Craig, W., & Hollenstein, T. (2019a). The role of shame in the relation between peer victimization and mental health outcomes. *Journal of Interpersonal Violence*, 34(1), 156–181. <https://doi.org/10.1177/0886260516672937>
- Irwin, A., Li, J., Craig, W., & Hollenstein, T. (2019b). The role of shame in chronic peer victimization. *School Psychology*, 34(2), 178–186. <https://doi.org/10.1037/spq0000280>
- Jazaieri, H., McGonigal, K., Jinpa, T., Doty, J.R., Gross, J.J., & Goldin, P.R. (2013). A randomized controlled trial of compassion cultivation training: Effects on mindfulness, affect, and emotion regulation. *Motivation and Emotion*, 38, 23–35. doi:10.1007/s11031-013-9368-z
- Keltner, D. (1995). Signs of appeasement: Evidence for the distinct displays of embarrassment, amusement, and shame. *Journal of Personality and Social Psychology*, 68(3), 441–454.
- Kim, S., Thibodeau, R., & Jorgensen, R. S. (2011). Shame, guilt, and depressive symptoms: A meta-analytic review. *Psychological Bulletin*, 137, 68–96. <https://doi.org/10.1037/a0021466>

- Kreft, I., & de Leeuw, J. (1998). *Introducing multilevel modeling*. London: Sage.
- Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine*, *16*, 606–613.
<https://doi.org/10.1046/j.1525-1497.2001.016009606.x>
- Krueger, R. F., Derringer, J., Markon, K. E., Watson, D., & Skodol, A. E. (2012). Initial construction of a maladaptive personality trait model and inventory for DSM-5. *Psychological Medicine*, *42*, 1879–1890. <https://doi.org/10.1017/S0033291711002674>
- Leach, C. W., & Cidam, A. (2015). When is shame linked to constructive approach orientation? A meta-analysis. *Journal of Personality and Social Psychology*, *109*, 983–1002.
<https://doi.org/10.1037/pspa0000037>
- Leary, M. R., Terdal, S. K., Tambor, E. S., & Downs, D. L. (1995). Self-esteem as an interpersonal monitor: The sociometer hypothesis. *Journal of Personality and Social Psychology*, *68*(3), 518–530.
- Luyten, P., Fontaine, J. R. J., & Corveleyn, J. (2002). Does the Test of Self-Conscious Affect (TOSCA) measure maladaptive aspects of guilt and adaptive aspects of shame? An empirical investigation. *Personality and Individual Differences*, *33*, 1373–1387.
[https://doi.org/10.1016/S0191-8869\(02\)00197-6](https://doi.org/10.1016/S0191-8869(02)00197-6)
- Martens, J. P., Tracy, J. L., & Shariff, A. F. (2012). Status signals: Adaptive benefits of displaying and observing the nonverbal expressions of pride and shame. *Cognition & Emotion*, *26*(3), 390–406. <https://doi.org/10.1080/02699931.2011.645281>
- McNair, D. M., Lorr, M., & Droppleman, L. F. (1971). Profile of Mood States. San Diego, CA: Educational and Industrial Testing Service.
- Michelson, S. E., Lee, J. K., Orsillo, S. M., & Roemer, L. (2011). The role of values-consistent

- behavior in generalized anxiety disorder. *Depression and Anxiety*, 28, 358–366.
<https://doi.org/10.1002/da.20793>
- Moskowitz, D. S., Russell, J. J., Sadikaj, G., & Sutton, R. (2009). Measuring people intensively. *Canadian Psychology/Psychologie Canadienne*, 50, 131–140.
<https://doi.org/10.1037/a0016625>
- Newman, M. G., & Erickson, T. M. (2010). Generalized anxiety disorder. In J. Gayle Beck (Ed.), *Interpersonal processes in the anxiety disorders: Implications for understanding psychopathology and treatment* (235–259). Washington, D. C.: American Psychological Association.
- Newman, M. G., Zuellig, A. R., Kachin, K. E., Constantino, M. J., Przeworski, A., Erickson, T., & Cashman-McGrath, L. (2002). Preliminary reliability and validity of the generalized anxiety disorder questionnaire-IV: A revised self-report diagnostic measure of generalized anxiety disorder. *Behavior Therapy*, 33, 215–233.
[https://doi.org/10.1016/S0005-7894\(02\)80026-0](https://doi.org/10.1016/S0005-7894(02)80026-0)
- Peters, L., Sunderland, M., Andrews, G., Rapee, R. M., & Mattick, R. P. (2012). Development of a short form Social Interaction Anxiety (SIAS) and Social Phobia Scale (SPS) using nonparametric item response theory: The SIAS-6 and the SPS-6. *Psychological Assessment*, 24, 66–76. <https://doi.org/10.1037/a0024544>
- Reitz, A. K., Motti-Stefanidi, F., & Asendorpf, J. B. (2016). Me, us, and them: Testing sociometer theory in a socially diverse real-life context. *Journal of Personality and Social Psychology*, 110, 908–920. <https://doi.org/10.1037/pspp0000073>
- Scott, L. N., Wright, A. G. C., Beeney, J. E., Lazarus, S. A., Pilkonis, P. A., & Stepp, S. D. (2017). Borderline personality disorder symptoms and aggression: A within-person

process model. *Journal of Abnormal Psychology*, 126, 429–440.

<https://doi.org/10.1037/abn0000272>

Shrout, P. E., Herman, C. M., & Bolger, N. (2006). The costs and benefits of practical and emotional support on adjustment: A daily diary study of couples experiencing acute stress. *Personal Relationships*, 13, 115-134. <https://doi.org/10.1111/j.1475-6811.2006.00108.x>

Shrout, P. E., & Lane, S. P. (2012). Psychometrics. In M. R. Mehl & T. S. Conner (Eds), *Handbook of research methods for studying daily life* (pp. 302-320). Guilford.

Tangney, J. P. (1996). Conceptual and methodological issues in the assessment of shame and guilt. *Behaviour Research and Therapy*, 34, 741-754. [https://doi.org/10.1016/0005-7967\(96\)00034-4](https://doi.org/10.1016/0005-7967(96)00034-4)

Tangney, J. P., & Dearing, R. L. (2002). *Shame and guilt*. New York, NY: Guilford Press.

Tangney, J. P., Dearing, R. L., Wagner, P. E., & Gramzow, R. (2000). *The Test of Self-Conscious Affect-3 (TOSCA-3)*. Fairfax, VA: George Mason University

Tangney, J. P., Miller, R. S., Flicker, L., & Barlow, D. H. (1996). Are shame, guilt, and embarrassment distinct emotions? *Journal of Personality and Social Psychology*, 70, 1256–1269. <https://doi.org/10.1037/0022-3514.70.6.1256>

Tangney, J. P., Stuewig, J., & Mashek, D. J. (2007). Moral emotions and moral behavior. *Annual Review of Psychology*, 58, 345–372. <https://doi.org/10.1146/annurev.psych.56.091103.070145>

Tangney, J., Wagner, P., & Gramzow, R. (1992). Proneness to Shame, Proneness to Guilt, and Psychopathology. *Journal of Abnormal Psychology*, 101, 469–478. <https://doi.org/10.1037/0021-843X.101.3.469>

- Tracy, J. L., & Robins, R. W. (2004). Putting the self into self-conscious emotions: A theoretical model. *Psychological Inquiry*, 15(2), 103–125.
https://doi.org/10.1207/s15327965pli1502_01
- Tracy, J. L., & Robins, R. W. (2006). Appraisal antecedents of shame and guilt: Support for a theoretical model. *Personality and Social Psychology Bulletin*, 32, 1339–1351.
<https://doi.org/10.1177/0146167206290212>
- Van Hooff, M. L. M., Geurts, S. A. E., Kompier, M. A. J., & Taris, T. W. (2007). “How fatigued do you currently feel?” Convergent and discriminant validity of a single-item fatigue measure. *Journal of Occupational Health*, 49, 224–234.
<https://doi.org/10.1539/joh.49.224>
- Wojcik, K. D., Cox, D. W., & Kealy, D. (2019). Adverse childhood experiences and shame- and guilt-proneness: Examining the mediating roles of interpersonal problems in a community sample. *Child Abuse & Neglect*, 98.
<https://doi.org/10.1016/j.chiabu.2019.104233>
- Wong, Y., & Tsai, J. (2007). Cultural models of shame and guilt. In J. Tracy, R. Robbins, & J. P. Tangney (Eds.), *The self-conscious emotions: Theory and research* (pp. 209–223). Guilford Press.
- Young, C. M., Neighbors, C., DiBello, A. M., Traylor, Z. K., & Tomkins, M. (2016). Shame and Guilt-Proneness as Mediators of Associations Between General Causality Orientations and Depressive Symptoms. *Journal of Social and Clinical Psychology*, 35, 357–370.
<https://doi.org/10.1521/jscp.2016.35.5.357>