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Culture of honor theory and social anxiety: Cross-regional and sex differences in relationships among honor-concerns, social anxiety, and reactive aggression

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Abstract

Consistent with the “flight or fight” model of anxiety, social anxiety may incite withdrawal or attack; yet, it is unclear why some socially anxious individuals are vulnerable to aggress. It may be that culture impacts tendencies to “fight” or “flee” from social threat. *Honor cultures*, including the American South, permit or even promote aggression in response to honor-threats. Thus, social anxiety in the South may be more associated with aggression than in non-honor cultures. In the current sample, region moderated the relation between social anxiety and aggression; social anxiety related positively to reactive (but not proactive) aggression among Southerners ($n = 285$), but not Midwesterners ($n = 258$). Participant sex further moderated the relationship, such that it was significant only for Southern women. Also, for Southerners, prototypically masculine honor-concerns mediated the relationship between social anxiety and reactive aggression. Cultural factors may play key roles in aggressive behavior among some socially anxious individuals.

Keywords

social anxiety; aggression; culture of honor; South; gender

Social anxiety disorder (SAD) is characterized by extreme fear of evaluation or humiliation in social situations (American Psychiatric Association, 2013). Consistent with a “fight versus flight” model of anxiety (Cannon, 1932), there is increasing evidence for symptom heterogeneity within SAD: a prototypical, inhibited subtype; and an externalizing, hostile subtype (e.g., Kachin, Newman, & Pincus, 2001). However, the relationship between social anxiety and aggression is poorly understood. Some data indicate a positive association between social anxiety and both (a) perceived social status improvement for being aggressive (e.g., Kashdan & McKnight, 2010) and (b) behaving aggressively (Hanby, Fales, Nangle, Serwik, & Hedrich, 2012; Loukas, Paulos, & Robinson, 2005). However, other studies have found no association between social anxiety and aggression (e.g., see Erwin, Heimberg, Schneier, & Liebowitz, 2003), or even a negative relationship (e.g., DeWall,

Buckner, Lambert, Cohen, & Fincham, 2010). These discrepant findings suggest that social anxiety alone does not guarantee an increased risk for aggression.

Culture may impact whether socially anxious persons aggress. Because socially anxious individuals fear social disapproval, one might assume that they would *not* physically act on hostility or anger, emotions found to be elevated among many SAD patients (e.g., DeWall et al., 2010; Erwin et al., 2003). However, this interpretation is based upon the assumption that communities discourage aggression as a way to manage insult or threat. A counterexample is that *honor cultures* (e.g., the American South; Nisbett & Cohen, 1996) permit or even promote aggression as an acceptable response to honor-threats, to convey warning to threatening others and to reduce risk of future threatening advances. In fact, Southerners tend to be more violent than people in non-honor cultures in response to honor-threats (Cohen, Nisbett, Bowdle, & Schwarz, 1996). Thus, if socially anxious Southerners internalize cultural beliefs that aggression is an effective method to eliminate and preclude social threat, then they may be more likely than socially anxious persons in non-honor cultures to behave aggressively.

Common honor-concerns in the South are related to toughness, hardiness, and other prototypically “masculine”-typed traits (Nisbett & Cohen, 1996). Regarding additional cultural roles in aggression, most of Southern honor culture research to date has been conducted using all-male samples. Some evidence indicates that female Southerners maintain greater honor culture beliefs than female Northerners (e.g., Nisbett & Cohen, 1996). Yet, researchers have acknowledged that there is still much to learn about women in the South with respect to honor-concerns (e.g., Nisbett & Cohen, 1996; Shackelford, 2005).

Among both men and women, social anxiety significantly relates to lower self-identification with masculine-typed traits (e.g., assertiveness), but is unrelated to self-identification with feminine-typed traits (e.g., Moscovitch, Hofmann, & Litz, 2005). The next step is to assess how *concerned* socially anxious persons are that others may perceive them to be low in traits such as assertiveness and hardiness, and whether this concern is related to more aggressive behavior, especially among Southerners. To illustrate, one client from our Southern site’s clinic was fearful of being perceived as “weak”. During in-session exposure exercises, he was visibly anxious but stated he was just “irritated”. When his therapist probed whether he was in fact experiencing anxiety, he became hostile, accusing her of trying to make him feel worse. He left the room, slamming the door behind him.

Another limitation to prior research regarding social anxiety and aggression is that it has not clearly distinguished between motives for physical aggression. Thus, in the current study, aggression was examined as either *proactive aggression* (i.e., premeditated and instrumental to coerce others) or *reactive aggression* (i.e., provoked from perceived threat from others) (e.g., see Raine et al, 2006). Although proactive aggression does not differ between Southern and non-honor American cultures (e.g., Cohen et al., 1996), aggression in *reaction* to perceived threat or insult is greater in the South. Thus, highly threat-sensitive socially anxious individuals, who have honor culture-related beliefs, may engage in *reactive* aggression in response to perceived social threat.

To our knowledge, no researchers have investigated the relationships among the perceived social importance of masculine-typed traits (e.g., toughness), social anxiety, and physical aggression within a cultural framework. The current study set out to elucidate the relation between social anxiety and aggression in several ways. It was hypothesized that Southerners (versus Midwesterners) would report (1) greater concerns about various honor-threats, as well as (2) greater tendencies to engage in *reactive* aggression. (3) It was also hypothesized that regional identification would moderate the relationship between social anxiety and *reactive*, but not *proactive*, aggression, with a significant positive relationship emerging for Southerners but not Midwesterners. (4) It was hypothesized that masculine-typed honor-concerns would mediate the relationship between social anxiety and reactive aggression for Southerners, but not for Midwesterners, beyond other types of honor-concerns. (5) Lastly, given that the majority of Southern honor culture research has been conducted using male participants (see Shackelford, 2005), but that both socially anxious men and women rate themselves as low in masculine-typed traits (e.g., Moscovitch et al., 2005), we explored if sex also impacted the relationships among social anxiety, honor concerns, and reactive aggression.

Importantly, there may also be increased risk of depression and self-targeted aggression (i.e., suicide) among Southerners—perhaps in part due to strong ties between honor and perceived self-worth (Osterman & Brown, 2011). Furthermore, there is some symptom overlap between social anxiety and depression (e.g., Stein et al., 2001). Thus, to ensure that results pertaining to the relationships among social anxiety, aggression, and honor concerns were not accounted for by depression, depression was included in analyses as a covariate.

METHODS

We report how we determined our sample size, all data exclusions, all manipulations, and all measures in the study.

Participants

Undergraduates at a Southern or Midwestern American university voluntarily completed a battery of questionnaires and received partial course credit. Participants who reported non-U.S. citizenship were excluded from this study. The racial distribution at each site mirrored that of the respective university's public online reports. Participants identified one of the 50 United States with which they primarily identified. States identified as "home states" were then coded in terms of the four U.S. regions: Midwest, South, Northeast, or West (U.S. Census Bureau). Of the overall study sample ($N = 637$), 44.7% identified with a Southern state. Only 14.6% identified with the Northeast or West; thus, Midwesterners (40.7%) comprised the non-honor culture comparison sample. The final Southern ($n = 285$; $M[SD]_{\text{age}} = 23.3[4.16]$; $M[SD]_{\text{years in region}} = 18.3[4.72]$; 80.4% female; 80.4% Caucasian) and Midwestern ($n = 258$; $M[SD]_{\text{age}} = 19.7[1.73]$; $M[SD]_{\text{years in region}} = 17.6[4.97]$; 72.2% female; 88.4% Caucasian) *regional-identification* samples included participants who completed all measures utilized in the current study.¹

Measures

The *Liebowitz Social Anxiety Scale (LSAS; Liebowitz, 1987) self-report (SR) version* is comprised of 24 items rated on two 4-point Likert-type scales: fear and avoidance of performance and interactive social situations. Higher scores indicate greater severity. The LSAS-SR has consistently demonstrated strong psychometric features (e.g., Fresco et al., 2001) that are comparable to those of the clinician-administered LSAS. For the present study, the LSAS-SR demonstrated excellent internal consistency for both regional samples, Cronbach's α s = .96.

The *Depression Anxiety Stress Scales-Short Form (DASS-21), Depression subscale (Antony, Bieling, Cox, Enns, & Swinson, 1998)* asks participants to rate the extent they experienced each depression-related symptom in the past week. The DASS-21 has demonstrated adequate-to-excellent internal consistency and convergent validity (e.g., Antony et al., 1998). The DASS-21 depression subscale demonstrated excellent internal consistency for both regional samples, Cronbach's α s = .88.

An untitled *honor-concerns questionnaire (HCQ; Rodriguez Mosquera, Manstead, & Fischer, 2002)* was modified (HCQ-m) by the current authors to measure the strength of honor-related concerns. Rodriguez Mosquera and colleagues (2002) developed the original 27-item questionnaire to assess honor-concerns in Spain versus The Netherlands; items were not country-specific. Participants are asked to vividly imagine that they are rumored to engage in behaviors, or exemplify characteristics, which threaten one of four honor domains: *family honor* (e.g., "Being unable to defend one's family's reputation"), *personal integrity* (e.g., "Not keeping up one's word"), *masculine-typed honor* (e.g., "Not defending oneself when others insult you"), and *feminine-typed honor* (e.g., "Being known as someone it is easy to sleep with"). Participants are next asked to rate the extent to which each reputed behavior or characteristic would damage their self-esteem. Internal consistency of the original questionnaire is adequate in Spanish, Dutch, and Turkish samples (Rodriguez Mosquera et al., 2002; van Osch, Breugelmans, Zeelenberg, & Bökük, 2013). Because the measure was originally designed to measure honor-concerns in Spain and the Netherlands, confirmatory factor analyses (CFA) were conducted to test factorial validity in the present American samples. A four-factor model was tested. After modification (-m; i.e., removal of 3 items due to unsatisfactory factor score weights [i.e., < .30]), a four-factor HCQ-m model demonstrated excellent fit (Hu & Bentler, 1999).² All four subscales indicated good internal consistency for both samples, Cronbach's α s = .86.

The *Reactive-Proactive Aggression Questionnaire (RPQ, Raine et al., 2006)* contains 23 items. Participants rate the extent to which they engage in various aggressive behaviors that are either *reactive* (e.g., "Gotten angry or mad or hit others when teased") or *proactive* (e.g., "Threatened and bullied someone"). The RPQ has demonstrated good psychometric

¹Eight individuals recruited in the Midwest (0.03%) identified with a Southern state, and 6 individuals recruited in the South (0.02%) identified with a Midwestern state. Patterns of results of the current study remained the same when these 14 individuals were excluded from analyses. All reported results include these individuals' data.

²Detailed results of our CFAs of the HCQ are available upon request. Removed items included: Item 16 ("Not yet having had a sexual relationship"; Masculine honor subscale); Item 20 ("Having the reputation of being someone without sexual experience"; Masculine honor subscale); and Item 22 ("Having sexual relations before marriage"; Feminine honor subscale).

properties (e.g., Raine et al, 2006). Both subscales demonstrated good consistency for both samples, Cronbach's α s = .80.³

RESULTS

Assumptions of normality for all parametric tests were assessed, and non-normally distributed measures of depression and proactive aggression were square-root transformed.

Effects of Demographics and Depression

Preliminary tests determining effects of sex, age, race/ethnicity, and depression on social anxiety and the dependent variables (honor-concerns and aggression types) were conducted. Independent-samples *t*-tests, univariate and multivariate analyses of variance ([M]ANOVAs), and bivariate correlations were calculated.

Sex—For both Southerners and Midwesterners, males reported significantly greater proactive aggression and lower feminine-typed honor-concerns than females, t s = |2.91|, ps < .001, ds = |0.48|. Southern males and females did not significantly differ on reactive aggression, t = 1.62, p = .11, d = -0.23, whereas Midwestern males reported higher reactive aggression than females, t = 2.94, p < .01, d = 0.39. Lastly, social anxiety severity did not differ per sex, for either region, t s = .90, ps = .37, ds = .14.

Age—For both regions, age was not significantly correlated with any dependent variable or social anxiety, r s = .12, ps = .07.

Race/Ethnicity.⁴—For Southerners, neither types of aggression nor honor concerns, or social anxiety, significantly differed by race/ethnicity, ps = .14. For Midwesterners, types of aggression did not differ per race/ethnicity, *between-subjects* F s (4, 253) = 1.38, ps = .24; however, honor-concerns, *multivariate* F (16, 1012) = 2.05, p < .01, and social anxiety, F (4, 253) = 3.91, p < .01, η_p^2 = .06, did vary according to race.⁵

Depression—For both regions, depression was positively and significantly related to both types of aggression, r s = .34, ps < .001, and to social anxiety, r s = .45, ps < .001. Regarding honor concerns, depression neared significant correlation only for Midwesterners' masculine-typed honor-concerns, r = .11, p = .09.

³To ensure that the RPQ subscales did not significantly overlap with the constructs of social anxiety and honor-concerns (e.g., insecurity), bivariate correlations were examined. Correlations (r) among either reactive or proactive aggression and both social anxiety (i.e., LSAS-SR) and honor-concerns (i.e., HCQ subscales) ranged from -.21 to .28. It may thus be inferred that multicollinearity is low among the RPQ subscales and measures of social anxiety and honor-concerns utilized in the present study.

⁴Racial/ethnic groups for which there was only one participant per cell were excluded from the preliminary analyses (i.e., there was only one participant per site who identified as Native American).

⁵Per an LSD post-hoc test, Midwestern individuals who identified as Asian versus Caucasian, African American, or Hispanic/Latino, reported significantly lower impacts on self-esteem related to *integrity* and *feminine-typed honor-concerns*, all ps < .0125. Asian individuals also reported significantly lower impacts on self-esteem related to *family* and *masculine-typed honor-concerns* than Caucasian and African-American persons, ps < .0125. Regarding racial differences in social anxiety, Asians reported significantly greater social anxiety than Caucasians and Hispanics/Latinos, ps < .0125.

Regional Comparisons

Chi-square and independent-samples t tests were conducted to determine significant regional differences in: sex, age, race/ethnicity, depression, or social anxiety. There were significant differences only in: sex, $\chi^2(1) = 5.00, p = .03$; age, $t(393.01)^6 = 3.86, p < .001, d = 0.33$; and depression, $t(541) = -2.59, p = .01, d = 0.22$.

Main Analyses

Hypothesis 1: Southerners (versus Midwesterners) would report greater concerns about honor-threats—A multivariate analysis of covariance (MANCOVA) was performed. Regional identification (i.e., Midwest versus South) was entered as a dichotomous independent variable. The four honor-concerns (i.e., HCQ-m subscales) were entered as the dependent variables. Age, sex, race/ethnicity, and depression were entered as covariates. There was a significant main effect, $F(4, 495) = 6.62, p < .001, \eta_p^2 = .05$, and Bonferroni-adjusted post-hoc tests were conducted. Consistent with hypothesis, Southern (versus Midwestern) participants reported that their self-esteem would be significantly more impacted in response to threats to all four honor-concerns, $F_s = 16.78, p_s < .001, \eta_p^2_s = .03$; all univariate $d_s = .34$. This cross-regional trend was still evident among only males or only females, $F_s = 2.49, p_s = .047, \eta_p^2_s = .08$.

Hypothesis 2: Southerners (versus Midwesterners) would report greater tendencies to engage in reactive aggression—Another MANCOVA was performed, covarying for age, sex, race/ethnicity, and depression. Inconsistent with Hypothesis 2, there was no main effect of region-identification on either reactive or proactive aggression, $F(2, 497) = .03, p = .96, \eta_p^2 < .001$, including for males and females, separately, $F_s = .03, p_s = .53, \eta_p^2_s = .01$.

Hypothesis 3: Regional identification would moderate the relationship between social anxiety and reactive, but not proactive, aggression, with a significant positive relationship emerging for Southerners but not Midwesterners—Two hierarchical linear regression analyses were utilized. For both models, age, race, and sex were entered as covariates in the first step. Depression was entered into the second step. Social anxiety, region, and their interaction term were entered into the third step. Reactive or proactive aggression was the respective criterion. The interaction was significant (see Table 1 for results). Simple slopes were tested by reverse-coding the moderator variable (region). Consistent with hypothesis, there was a significant positive relationship between social anxiety and reactive aggression for Southerners but not Midwesterners. Also as hypothesized, the interaction was not significant for *proactive aggression*.

Given that the majority of Southern honor culture research has been conducted in male samples, we explored whether sex moderated the social anxiety X region interaction. Results supported a three-way interaction when predicting reactive but not proactive aggression (see

⁶Levene's test for homogeneity of variances was significant, $p < .05$, indicating that the parametric assumption for homogeneity of variances was violated. Thus, a separate variances t -test was conducted using the Welch-Satterthwaite method.

Table 1 and Figure 1). First, sex moderated the relationship between social anxiety and reactive aggression for Southerners, $t = -2.05, p < .05$, but not Midwesterners, $t = 1.10, p = .27$. Specifically, social anxiety was significantly related to reactive aggression for Southern women, $t = 4.11, \beta = .26, p < .001$, but not for Southern men, $t = -.33, \beta = -.05, p = .74$. Also, Southern women were significantly less reactively aggressive than Southern men when social anxiety was absent, $t = 2.54, p = .01$, but not significantly different when highly (+1SD) socially anxious, $t = -.60, p = .55$ (+2SD: $t = -1.28, p = .20$). Second, there was a significant interaction between social anxiety and region among women, $t = -2.98, p < .01$, but not among men, $t = 1.03, p = .31$. Unlike for Southern women, social anxiety was not related to reactive aggression among Midwestern women, $t = -.13, \beta = -.01, p = .89$.

Hypothesis 4: Concerns of masculine-typed honor would mediate the relationship between social anxiety severity and reactive aggression for Southerners, but not for Midwesterners, beyond other types of honor-concerns—

Preliminary correlations were completed before mediation analyses to ensure expected relationships.⁷ Multiple mediation models were tested in the Southern sample using a bootstrapping method (Preacher & Hayes, 2008). Bias corrected and accelerated (BCa) confidence intervals (95%) were computed. Social anxiety was the independent variable. Reactive aggression was the dependent variable. The four honor-concerns were simultaneously entered as the mediator variables, covarying for sex and depression.

As hypothesized, masculine-typed honor-concerns had a unique indirect effect on the relationship between social anxiety and reactive aggression among Southerners (95% CIs [.0003, .0128]), above and beyond family (95% CIs [-.0035, .0084]), integrity (95% CIs [-.0102, .0000]), and feminine-typed (95% CIs [-.0103, .0005]) honor-concerns, which were not uniquely significant. Given the limitations of conducting mediational analyses using cross-sectional data, we also tested a competing model – whether social anxiety mediated masculine-typed honor-concerns and reactive aggression. Sex, depression, and the three other honor-concerns were entered as covariates. This alternative model was not supported (95% CIs [-.0272, .0158]). We also tested our hypothesized model among Midwesterners, to confirm the hypothesized specificity of the model to Southerners. No significant mediation occurred; the relationship between social anxiety and reactive aggression retained the same strength, with ($\beta = .005; p = .07$) or without ($\beta = .005; p = .06$) all four mediator variables. Exploratory findings indicated that sex did not moderate the hypothesized mediation effect when covarying for depression, $t = -.28, p = .78$.

DISCUSSION

The present study is the first to test whether social anxiety is related to specific types of aggression, within a sociocultural context. Cultural factors (e.g., honor-related beliefs, gender) may at least partially account for disparate findings regarding social anxiety's relation to aggression. Specifically, identification with a culture of honor (American South)

⁷For Southerners, all four honor-concerns were marginally significantly (masculine and integrity honor; $r_s = .11, p_s = .059$) to significantly (family and feminine honor; $r_s = .16, p_s = .01$) related to social anxiety. However, for Midwesterners, only the relation between social anxiety and feminine-typed honor-concerns ($r = .12, p_s = .053$) neared significance (all other honor-concerns: $r_s = .12, p_s = .19$).

moderated the relationship between social anxiety severity and reactive (but not proactive) aggression, such that social anxiety was significantly, positively related to reactive aggression among Southerners, but not Midwesterners. When considered in light of our data, this corpus of work suggests that Southerners are more likely than Midwesterners to reactively aggress in response to perceived social threat. Thus, socially anxious Southerners may be more aggressive as a result of chronically elevated hypervigilance to social threat cues.

Our mediational findings indicated that for Southerners, but not Midwesterners, greater social anxiety was related to lower self-esteem if they were rumored to not exhibit “masculine”-typed characteristics (e.g., not stand up for oneself), which was in turn related to greater tendencies to defensively aggress toward others. A competing model (i.e., social anxiety as a mediator for masculine honor-concerns and reactive aggression among Southerners) was disconfirmed. Masculine-typed honor-concerns, above other types of concerns, appear to have an important role in the positive association between social anxiety and reactive aggression among Southerners.

Interestingly, sex moderated the relationship between social anxiety and reactive aggression for Southerners but not Midwesterners. Specifically, social anxiety was significantly related to reactive aggression for Southern women, but not Southern men. Thus for Southern women, individual social anxiety appears to play a strong role in likelihood of reactive attack, whereas for Southern men, aggression may be largely driven by socialized cultural norms. Given that sex did not moderate the mediation effects of honor concerns, there may be additional cultural factors that warrant study regarding the relationships among gender, culture, social anxiety, and aggression.

Our findings also have implications for the assessment and treatment of SAD by highlighting the importance for mental health professionals to strive for cultural competence in assessing the concerns and behaviors of socially anxious patients. Professionals are encouraged to assess for and target (when appropriate) honor-related concerns. Professionals are also encouraged to assess for aggression, to work with patients to determine whether their aggression is reactive or proactive, and then help patients develop adaptive coping skills to manage honor-related threats. This strategy may be especially necessary for some female Southern patients.

Although not the primary aims of the current study, some additional findings are worth noting. First, our data supported extant literature that the American South represents an honor culture (e.g., Nisbett & Cohen, 1996). Second, contrary to hypothesis, there was no significant mean difference in reactive aggression between Southerners and Midwesterners. One possible reason for this discrepancy is that the measure targets reactive aggression in general, and not reactions to honor threats, specifically. Third, contrary to past findings (Osterman & Brown, 2011), depression was not significantly related to masculine-typed honor-concerns. These disparate findings may be due to methodological differences, such as the use of different measures to assess these constructs, or to sample-specific effects. Specifically, it may be that depression is unrelated to masculine-typed honor-concerns

among undergraduates but is related to them among adults more broadly, as sampled by Osterman and Brown (2011).

As the current results are a first step in understanding cultural differences in the relationships among social anxiety, honor-concerns, and aggression, there are several limitations that can inform future directions. First, all analyses were conducted in majority-female, self-reporting, undergraduate samples, limited to only two U.S. universities/regions. Second, replicating the present findings in broader adult and clinical samples remains essential to determine whether reactive aggression tendencies for SAD patients mirror non-anxious controls (Erwin et al., 2003), versus whether some highly socially anxious persons are at greater risk for physical aggression. Third, it is recommended that future studies utilize *in vivo* or longitudinal designs to test mechanisms involved in engagement in aggressive acts in specific social situations. Fourth, it is important to continue examining the roles of other cultural aspects (e.g., ethnicity, gender role expectancies), with regard to social anxiety and aggression. Fifth, it is important to investigate social dynamics in honor cultures that may contribute to increased risk for aggression from socially anxious individuals. To illustrate, socially anxious persons in honor cultures may be at greater risk for being teased or bullied. In addition, it may be beneficial to test whether socially anxious women are more likely to feel socially threatened by, and aggress toward, certain individuals (e.g., other women or men), and in what contexts. Given that *social anxiety* fundamentally implies fears of not meeting social norms and avoidance of social situations, application of social psychological theory may enhance clinical research, theory, and treatment for SAD.

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Figure 1.

^a $t = -.33$, $\beta = -.05$, $p = .74$; ^b $t = 4.11$, $\beta = .26$, $p < .001$; ^c $t = 1.17$, $\beta = .14$, $p = .24$; ^d $t = -.13$, $\beta = -.01$, $p = .89$. Graphical depiction of a significant three-way interaction. Per U.S. region, significant moderating effect of sex on the relationship between social anxiety severity and reactive aggression, controlling for age, race, and depression. LSAS-SR = Liebowitz Social Anxiety Scale-Self Report version; RPQ = Reactive-Proactive Aggression

Questionnaire. For both samples, LSAS-SR (rounded values): $-1SD = 20$; $M = 40$; $+1SD = 70$.

Table 1

Moderational Effects of U.S. Region Identification on Social Anxiety Severity and Aggression

Variables	F	R ²	t	β	SE	p
<u>Reactive Aggression</u>	17.05					<.001
Step 1		.02				<.05
Age			-1.01	-.05	.05	.31
Sex ^a			2.89	.13	.40	<.01
Race			.62	.03	.16	.54
Step 2		.15				<.001
DASS-21: Depression			9.60	.39	.14	<.001
Step 3		.01				<.05
LSAS-SR ^b			3.42	.31	.01	=.001
Region ID ^c			2.19	.18	.33	<.05
LSAS-SR X Region			-2.31	-.26	.006	<.05
Step 4		.01				.13
LSAS-SR X Sex			-2.05	-.26	.02	<.05
Sex X Region			-1.70	-.22	1.50	=.09
LSAS-SR X Region X Sex			2.26	.29	.03	<.05
<u>Proactive Aggression</u>	17.17					<.001
Step 1		.07				<.001
Age			-1.87	-.08	.01	.06
Sex ^d			5.47	.24	.11	<.001
Race			.67	.03	.04	.50
Step 2		.12				<.001
DASS-21: Depression			8.47	.35	.04	<.001
Step 3		.01				=.05
LSAS-SR Total			1.81	.16	.004	.07
Region ID ^c			.46	.04	.17	.64
LSAS-SR X Region			-.45	-.05	.002	.65
Step 4		<.001				.99

Variables	F	R ²	t	β	SE	p
LSAS-SR X Sex			-.20	-.02	.01	=.85
Sex X Region			-.06	-.01	.40	=.95
LSAS-SR X Region X Sex			.02	.002	.01	=.99

Note:

^aFemale = 0, Male = 1;

^bFor Midwesterners, $t = .41$, $\beta = .03$, $SE = .01$, $p = .68$;

^cSouth = 0, Midwest = 1; LSAS-SR = Liebowitz Social Anxiety Scale- Self-Report; DASS-21: Depression = Depression Anxiety Stress Scale-Short Version: Depression subscale; bold values = statistically significant ($p < .05$).