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SHAME AND GUILT-PRONENESS AS MEDIATORS OF ASSOCIATIONS BETWEEN GENERAL CAUSALITY ORIENTATIONS AND DEPRESSIVE SYMPTOMS

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Abstract

The present study examined the roles of shame- and guilt-proneness as mediators of associations between general causality orientations and depressive symptoms. We expected autonomy would be associated with less depressive symptoms based on higher guilt-proneness and lower shame-proneness, whereas control would be associated with more depressive symptoms based on lower guilt-proneness and higher shame-proneness. Undergraduates ($N = 354$) completed assessments of general causality orientations, shame- and guilt-proneness, and depressive symptoms in exchange for extra credit. Results of mediation analyses were generally supportive of the framework indicating that shame- and guilt-proneness mediate associations between self-determination and depressive symptoms. Autonomy was indirectly associated with less depressive symptoms through positive associations with guilt-proneness, in spite of unexpected positive associations with shame-proneness. Control and impersonal orientation were indirectly associated with more depressive symptoms through positive associations with shame-proneness. Results extend previous research relating self-determination to mental health in providing preliminary support suggesting that individual differences in self-determination facilitate differential tendencies in experiencing guilt and shame.

Keywords

self-determination theory; self-conscious emotions

CAUSALITY ORIENTATION DEVELOPMENT

Self-Determination Theory (SDT) is a broad theory of human motivation with an emphasis on the extent to which behaviors are intrinsically versus extrinsically motivated (Deci & Ryan, 1985a, 2000, 2012). Several sub-theories are included within this overarching theory, including Causality Orientations Theory. This theory focuses on individual differences in the extent to which people are autonomously-, control-, or impersonally-oriented (Deci & Ryan, 1985b). Theoretically, these orientations develop over time as a function of exposure to different environments (Deci & Ryan, 1987). Environments that support autonomy provide

optimal challenges, opportunities for choices, meaningful explanations for requested behavior, and competence promoting information while also acknowledging others' opinions and feelings (Black & Deci, 2000). Contexts that support autonomy facilitate a greater orientation towards autonomy. In contrast, controlling environments provide limited choices, involve coercion, highlight evaluative contingencies for performance, and facilitate an orientation towards extrinsic motivation and control. For example, perpetrators of intimate partner violence who were exposed to violence as children had higher control orientations (Neighbors et al., 2013). Autonomy disturbances can result from contexts that do not provide opportunities to experience competence, relatedness, or autonomy, regardless of one's performance (Ryan, Deci, & Vansteenkiste, 2016). Such disturbances may lead to the development of impersonal orientations wherein individuals feel an absence of motivation or fail to see a connection between their efforts and outcomes.

Empirically, causality orientations are associated with differential outcomes. Autonomy orientation is associated with successful self-regulation, higher self-actualization, and greater support for others' autonomy (Deci & Ryan, 1985b; Ryan, Deci, Grolnick, & La Guardia, 2006). Furthermore, autonomy is associated with greater authenticity, honesty, and openness in relationship contexts (Hodgins & Knee, 2002; Deci, LaGuardia, Moller, Scheiner, & Ryan, 2006). Control orientation is associated with an external locus of control, hostility, anger, aggression, and defensiveness (Deci & Ryan, 1985b; Goldstein & Iso-Ahola, 2008; Neighbors, Vietor, & Knee, 2002). Finally, impersonal orientation is associated with self-derogation, depression, social anxiety, and low self-esteem (Deci & Ryan, 1985b). Previous research considering developmental contexts and their influence on causality orientations as well as the pattern of associations between causality orientations and outcomes related to openness, defensiveness, and hopelessness suggests that these orientations may be differentially associated with a proneness towards guilt versus shame.

SHAME AND GUILT

Shame is a negative emotion that is felt in regards to the self after committing a transgression (*I did that horrible thing*; Lewis, 1971). Unlike shame, guilt is defined as feeling badly about engaging in a specific behavior (*I did that horrible thing*), and focuses on how one's actions affect others (Lewis, 1971; Tangney & Dearing, 2002). Shame is often considered the more harmful of the two emotions, although adaptive and maladaptive functions have not been fully supported (Ferguson, Stegge, Eyre, Volimer, & Ashbaker, 2000). Shame is generally viewed as the experience of one's self as inherently wrong or flawed (Tangney & Dearing, 2002). This perspective fosters a depressive attribution style that devalues the self and can result in harmful health outcomes such as anxiety, depression, problematic alcohol use, drug use, and suicide (Dearing, Stuewig, & Tangney, 2005; Hoblitzelle, 1987; Lewis, 1987; Tangney & Dearing, 2002). Guilt, on the other hand, is characterized more positively. Tangney and Dearing (2002) describe guilt as a response to a specific undesirable action or behavior. Guilt is often attributed to behaviors that are internal and controllable, and thus self-esteem is not affected because individuals feel they can correct this behavior (Tracy & Robins, 2004). Guilt can lead to engagement in positive, responsible behaviors as a way to amend for past mistakes, and is negatively associated with

unhealthy behaviors such as problematic alcohol use (Dearing et al., 2005; Tangney & Dearing, 2002).

Previous research suggests shame is associated with depression, whereas guilt is often unrelated to depression. In a sample of neglected children, shame-proneness but not guilt-proneness was associated with more depressive symptoms (Bennet, Sullivan, & Lewis, 2010). Similar associations were found in children as young as three (Luby et al., 2009), such that higher levels of shame and guilt were both related to preschool depression with fewer attempts at guilt reparation, which indicates a maladaptive form of guilt. Pineles, Street, and Koenen (2006) found that shame-proneness alone was associated with higher levels of depressogenic attributions. Specifically, the shared variance between shame- and guilt-proneness and the unique component of shame-proneness were related to psychological symptoms and somatization symptoms, whereas the unique component of guilt was not related to psychological or somatization symptoms (Pineles et al., 2006).

In a study of child maltreatment, shame-proneness in early adolescence, while independent of delinquency, was positively correlated with symptoms of depression in late adolescence, whereas guilt-proneness was significantly associated with lower levels of delinquency in later adolescence (Stuewig & McCloskey, 2005). Among college students, shame-proneness accounted for a large portion of variance in depression, while guilt-proneness had very little relation to depression (Tangney, Wagner, & Gramzow, 1992). Therefore, much of the current research indicates that shame-proneness is positively associated with depression and depressive symptoms, whereas guilt-proneness is either negatively associated or nonsignificantly associated with depression and depressive symptoms.

ANTECEDENTS OF SHAME-PRONENESS AND GUILT-PRONENESS

In a study of shame and guilt across the lifespan, Orth, Robins, and Soto (2010) found that shame tends to be expressed at high levels in adolescence, when individuals typically have the least amount of control over their own lives, and begins to recede around age fifty. Alternatively, guilt was found to increase from adolescence into old age, presumably as an individual develops control over his or her life, and plateaus around age seventy. Women reported experiencing more shame and guilt than men (Orth et al., 2010). Additionally, shame was found to be negatively associated with psychological well-being. These findings provide preliminary insights into the developmental nature of shame and guilt and suggest that important individual differences exist in one's proneness towards shame and guilt.

SDT offers an alternative framework for considering the development of guilt- and shame-proneness. Because causality orientations are a function of early environmental contexts that are more or less controlling or autonomy supportive, we would expect subsequent differential manifestations of proneness towards shame and guilt (Ryan, Deci, Grolnick, & LaGuardia, 2006). Specifically, we would expect autonomy orientation to be positively associated with guilt-proneness and negatively associated with shame-proneness. In contrast, we would expect control orientation to be positively associated with shame-proneness and negatively associated with guilt-proneness. Further, we would expect impersonal orientation to be positively associated with shame-proneness.

DEPRESSIVE SYMPTOMS

As many as 36% of college students reported being impacted by depression (Mistler, Reetz, Krylowicz, & Barr, 2012). According to the American College Health Association (2013), 11% of students reported a diagnosis of depression and 22% reported experiencing depressive symptoms in the past 12 months. Individuals who report experiencing depression report high levels of negative affect, emotional reactivity, and alcohol and other substance use (Bylsma, Taylor-Clift, & Rottenberg, 2011; Myin-Germeys et al., 2003; Pedrelli et al., 2011; Peeters, Nicolson, Berkhof, Delespaul, & deVries, 2003; Silk et al., 2011). Due to the negative impact depression can have on individuals and the high rate at which it occurs among college students, research is needed to understand mechanisms through which individuals experience depressive symptoms. The current research examines theoretically relevant antecedents of depressive symptoms (causality orientations) and predispositions to experiencing self-conscious emotions (shame and guilt) and how these factors contribute to the experience of depressive symptoms.

CURRENT RESEARCH

Based on previous research suggesting autonomy orientation is related to a sense of personal choice regarding one's behavior, we hypothesized that autonomy orientation would be positively associated with guilt-proneness. Similarly, we expected autonomy orientation to be negatively associated with shame-proneness. Additionally, we hypothesized that both control and impersonal orientations would be positively associated with shame-proneness and that control orientation would be negatively associated with guilt-proneness. Further, based on previous findings, we expected shame-proneness to be positively associated with depressive symptoms and guilt-proneness to be negatively or nonsignificantly associated with depressive symptoms. Finally, we hypothesized that shame- and guilt-proneness would mediate associations between causality orientations and depressive symptoms.

METHOD

PARTICIPANTS AND PROCEDURE

Participants included 354 undergraduate students (89% female) with a mean age of 23.9 years old. The sample was racially and ethnically diverse, with 48.4% identifying as Caucasian/White, followed by 17.9% Asian, 13.1% African American/Black, 14.0% Other, 4.3% Multi-ethnic, 1.7% Native American/American Indian, and 0.6% Native Hawaiian/Pacific Islander. Additionally, 37.3% of the sample identified as Hispanic/Latino. The online survey asked participants to complete measures of general causality orientations, depressive symptoms, and guilt- and shame-proneness and individuals were given extra course credit for their participation.

MEASURES

Motivational Orientation—The General Causality Orientation Scale (GCOS; Deci & Ryan, 1985a) assessed individuals' motivational orientations. The questionnaire consists of 17 scenarios (e.g., You have just received the results of a test you took, and discovered that you did very poorly. Your initial reaction is likely to be), with three possible response

options for each item (e.g., I can't do anything right, and feel sad.). Participants indicated their likelihood of endorsing the response options using a 7-point scale (1 = Very unlikely; 7 = Very likely). The GCOS contains three subscales, each representative of a specific motivational orientation: autonomous ($\alpha = .93$), controlled ($\alpha = .78$), and impersonal ($\alpha = .85$).

Shame- and Guilt-Proneness—The Test of Self-Conscious Affect (TOSCA-3R; Tangney, Dearing, Wagner, & Gramzow, 2000) assessed participants' proneness to experiencing shame and guilt. The TOSCA contains 16 scenarios (e.g., While out with a group of friends, you make fun of a friend who's not there.), each with four possible responses to each scenario (e.g., You would apologize and talk about that person's good points.), in which participants indicated their likelihood of endorsing each response on a 5-point scale (1 = Not likely; 5 = Very likely). The scale consists of five subscales, however the present study focused solely on guilt-proneness ($\alpha = .90$) and shame-proneness ($\alpha = .81$).

Depressive Symptoms—The Center for Epidemiologic Studies-Depression Scale (CES-D; Radloff, 1977) measured the extent to which individuals experienced depressive symptoms. The questionnaire contains 20 items, such as "I felt fearful". Response options ranged from 1 to 4 (1 = Rarely or none of the time, less than 1 day; 4 = Most or all of the time, 5–7 days). The CES-D had a reliability of .90 for the current study.

RESULTS

DESCRIPTIVES

Means, standard deviations, and correlations are displayed in Table 1. Autonomy was positively correlated with control, shame, and guilt. Furthermore, autonomy was negatively correlated with depressive symptoms. Control was positively associated with impersonal orientation, shame, and guilt. Impersonal orientation was positively associated with shame and depressive symptoms. Shame was positively related to guilt and depressive symptoms.

PRIMARY ANALYSES

Our primary hypothesis was that proneness to shame and guilt would mediate associations between general causality orientations and depressive symptoms. Path analysis was used to test this hypothesis in AMOS 22.0. Standard errors were bootstrapped using 1,000 samples. In an initial model, we included only indirect associations between causality orientations and depression. This model did not fit the data well, $\chi^2(3) = 29.483$, $p < .001$, CFI = .961, RMSEA = .158 [.109, .213], primarily because of the strong direct association between impersonal orientation and depressive symptoms. With this path added, the model fit significantly better, $\chi^2(2) = 6.882$, $p = .032$, CFI = .993, RMSEA = .083 [.021, .155]. Adding a direct path from autonomy to depressive symptoms did not further improve fit, $\chi^2(1) = 2.967$, $p = .085$, nor did adding a direct path from control to depressive symptoms, $\chi^2(1) = 1.736$, $p = .188$. Figure 1 presents the resulting model and standardized parameter estimates.

To evaluate mediation, we used the MacKinnon *ab* product approach and examined confidence intervals for the indirect paths. Confidence intervals were calculated using the RMediation applet (Tofghi & MacKinnon, 2011), which provides bootstrapped asymmetric confidence intervals for *ab* products. Given the model structure, there were six possible indirect paths to depressive symptoms, one for each causality orientation through shame and one for each through guilt. Estimates for *ab* from the path analyses were used in RMediation. Results indicated significant, positive indirect effects for autonomy to depressive symptoms through shame, $ab = .297$, 95% CI [.058, .617]; control through shame, $ab = .263$, 95% CI [.005, .649]; and impersonal through shame, $ab = .878$, 95% CI [.207, 1.606]. For guilt, results revealed a significant, negative indirect effect for autonomy to depressive symptoms through guilt, $ab = -1.156$, 95% CI [-1.916, -.422]. Neither the indirect effect of control to depressive symptoms through guilt, $ab = -.032$, 95% CI [-.28, .202] nor the indirect effect of impersonal orientation to depressive symptoms through guilt, $ab = -.141$, 95% CI [-.375, .03] were significant.

DISCUSSION

The present research considered shame- and guilt-proneness as mediators of associations between causality orientations and symptoms of depression. SDT provides a unique framework for understanding depressive symptomatology (Ryan et al., 2006). In particular, causality orientations theory describes individual differences in the extent to which individuals are oriented towards autonomy, control, and amotivation. We expected that these orientations would be indirectly associated with depression through differential associations with shame- and guilt-proneness. Results were generally supportive of our hypotheses.

Specifically, autonomy was associated with less depressive symptoms, and this association was mediated by both shame- and guilt-proneness. According to SDT, early differential exposure to autonomy supportive environments is associated with a stronger autonomy orientation. Autonomy has been associated with less defensiveness and healthy emotion regulation, and according to the present data, a greater proneness towards guilt in attributions of personally caused negative outcomes. This is a relatively healthy response and in our data was associated with less depressive symptoms. Autonomy was also, unexpectedly, associated with more shame-proneness. Although this association was weaker than the associations of control and impersonal orientations and shame-proneness, it is not consistent with SDT or previous findings that led us to expect a negative association between autonomy and shame-proneness. It is possible that this anticipated finding is specific to the sample and thus we would caution against considering theoretical refinements without replication in other samples. Even so, the net indirect association between autonomy and depression is negative, largely due to the positive association between autonomy and guilt-proneness.

The pattern of indirect associations with control and impersonal orientation and depressive symptoms suggested by the present results were more consistent with expectations, although we expected control to be associated with less guilt-proneness. Moreover, both control and impersonal orientations were indirectly positively associated with depressive symptoms through higher levels of shame-proneness. However, impersonal orientation appears to be

the stronger factor leading to depressive symptoms. This is consistent with previous literature that has shown impersonal orientation to be associated with depression (Deci & Ryan, 1985b).

The present results provide a valuable initial consideration of shame- and guilt-proneness as potential mediators of individual differences in self-determination and depressive symptoms. The overarching idea is that early exposure to different environments can contribute to the development of causality orientations and these orientations are subsequently associated with different emotional reactions to negative outcomes that are caused by the self. These tendencies towards feeling guilt versus shame have subsequent influences on depression. The present data are relatively consistent with these ideas. However, it is important to note critical limitations of the present research that preclude our ability to make strong conclusions. First, the data are cross-sectional. Thus, we cannot rule out reverse causal interpretations. A logical next step would be to evaluate the same model with longitudinal data. It is also important to note that this is a single sample and replication is needed before drawing firm conclusions. Nevertheless, the present research is valuable in providing preliminary data suggesting specific emotional mechanisms that may, at least partially, account for associations between self-determination and depressive symptoms.

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FIGURE 1.

Shame-proneness and guilt-proneness as mediators of the associations between causality orientations (autonomy, control, and impersonal) and depressive symptoms.

TABLE 1

Means, Standard Deviations, and Correlations among Variables

	1.	2.	3.	4.	5.	6.	7.
1. Autonomy	—						
2. Control	0.32***	—					
3. Impersonal	-0.09 [‡]	0.45***	—				
4. Shame-proneness	0.17**	0.38***	0.50***	—			
5. Guilt-proneness	0.68***	0.27***	0.02	0.50***	—		
6. Externalization	-0.20***	0.36***	0.46***	0.51***	0.01	—	
7. Depressive symptoms	-0.19***	0.07	0.37***	0.23***	-0.09 [‡]	0.25***	—
Mean	5.33	4.11	3.44	46.76	61.85	36.59	15.32
Standard Deviation	1.09	0.80	0.95	11.27	12.21	10.19	10.22
Minimum	1.00	1.18	1.12	14.00	16.00	4.00	0.00
Maximum	7.00	6.35	5.94	74.00	80.00	70.00	52.00

Note. $N = 354$.***
 $p < .001$;**
 $p < .01$;[‡]
 $p < .10$.