

# **Articles**

# Shame and Guilt: Relationships of Test of Self-Conscious Affect Measures With Psychological Adjustment and Gender Differences in Iran

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# **Abstract**

In numerous studies conducted in Western societies, shame as measured by the Test of Self-Conscious Affect (TOSCA) has correlated with maladjustment whereas the TOSCA Guilt Scale has predicted adjustment. The present investigation sought to determine if such linkages would also appear in the Muslim cultural context of Iran. Iranian university students (N = 132) responded to Shame and Guilt Scales from the third version of the TOSCA, along with an array of personality measures. Shame correlated negatively with adjustment and positively with maladjustment. Guilt displayed an opposite pattern of relationships. As in previous Western investigations, women scored higher than men on guilt, but the expected female elevation in shame failed to appear. Shame, nevertheless, interacted with gender to predict relationships with poorer psychological functioning in women, but not in men. These data most importantly confirmed that the TOSCA Shame and Guilt Scales in Iran display implications similar to those observed in the West and that gender differences in Iran may deserve additional research attention.

Keywords: shame, guilt, Iran, psychological adjustment, sex differences

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Shame and guilt are morally relevant affects that play a central role in interpersonal and social life. As Tangney (2003) emphasizes, for example, "Shame and guilt are typically mentioned in the same breath as moral emotions that inhibit antisocial, morally objectionable behavior" (p. 387). Unsurprisingly, therefore, social scientific interest has often focused on attempts to understand these moral affects. Perhaps most famous were early psychoanalytic efforts to describe guilt as an emotionally disturbing influence of the superego on the ego (e.g., Freud, 1923/1960). As Dost and Yagmurlu (2008) make clear, however, psychological theory and research subsequently suggested that guilt may also be important in the adaptive development of self-responsibility. Shame and guilt have attracted attention in anthropological research as well. In her analysis of Japanese culture, for instance, Benedict (1967) argued that shame represents a public and guilt a private emotional response, a claim that remains the subject of controversy (Dost & Yagmurlu, 2008; Tangney, Miller, Flicker, & Barlow, 1996; Taylor, 1985).

Especially influential in recent research attempts to differentiate between these two moral emotions have been the psychotherapeutic insights of Lewis (1971). She argued that shame results from a global condemnation of the whole self, but guilt reflects instead a more limited negative evaluation of specific behaviors. The Test of Self-Conscious Affects (TOSCA) operationalizes this distinction and yields a consistent empirical picture. The TOSCA

Shame Scale displays linkages with maladjustment, whereas the TOSCA Guilt Scale tends to predict adjustment (Tangney, 1995, 2003; Tangney & Dearing, 2002).

Emde and Oppenheim (1995) suggest, "The self-conscious moral emotions, including shame and guilt, are important regulators that are likely to operate differently in different cultures" (p. 432). Kitayama, Markus, and Matsumoto (1995) more specifically distinguish between Western cultures in which independence is in the foreground of personality development with interdependence in the background, in contrast to non-Western cultures in which the prominence of the two types of self-functioning is reversed. Most studies examining the TOSCA Shame and Guilt Scales have used Western samples, and an important question is whether these measures have the same implications in non-Western societies (Tangney, 2003).

Interestingly, therefore, Furukawa, Tangney, and Higashibara (2012) recently discovered mean differences in the self-reported TOSCA Shame and Guilt scores of Korean, Japanese, and American children, but relationships of these affects with other measures seemed largely consistent across samples. Similar correlations across cultures suggest that TOSCA Shame and Guilt Scales have parallel connotations in Western and non-Western societies. On the other hand, Japanese investigations using university age students as the research participants have confirmed that the TOSCA Shame Scale predicts maladjustment, but they have offered little or no support for the idea that the TOSCA Guilt Scale operationalizes adjustment (Hasui et al., 2009; Uji, Kitamura, & Nagata, 2011a,b; Uji, Nagata, & Kitamura, 2012). In short, the meaning of the TOSCA Shame and Guilt Scales across cultures clearly deserves additional research attention, especially in older samples.

The present study sought to extend analysis of the TOSCA Shame and Guilt Scales to another non-Western cultural context, Iran. Procedures also examined the implications of these measures in university-age Iranians. As a formally Islamic society, Iran is more strongly organized around communal religious beliefs and practices than are more "secular" Western societies, and thus should encourage more interdependent forms of self-functioning. Given the recent observation of parallel correlations across Korean, Japanese, and American children (Furukawa et al., 2012), the general expectation was that the TOSCA Shame Scale would predict maladjustment and that the TOSCA Guilt Scale would predict adjustment in Iran, just as it does in university-age research participants in the West (e.g., Tangney & Dearing, 2002). On the other hand, examination of Iranian university students made it possible to explore the possibility suggested in Japanese studies that the TOSCA Guilt Scale might not have more adaptive implications in older non-Western samples (Hasui et al. 2009; Uji et al., 2011a,b, 2012).

Procedures also analyzed possible gender differences. A vast research literature demonstrates that "female participants consistently report *greater* shame and guilt than their male counterparts" (Tangney & Dearing, 2002, their emphasis). This gender difference perhaps reflects the generally stronger interpersonal sensitivity of women as revealed, for example, in their higher levels of empathy (e.g., Davis, 1983; Jonason, Lyons, Bethell, & Ross, 2013). It was of interest to determine if such relationships would hold true in Iran as well.

# **Measures of Psychological Adjustment**

Three broad types of instruments made it possible to assess the adjustment implications of the TOSCA Shame and Guilt Scales in Iran. Four scales evaluated forms of intrapersonal adjustment that seemed especially germane to the development of moral self-responsibility in Muslim Iran. Islamic philosophy identifies self-knowledge and self-control as critical in personal efforts to achieve the Muslim moral ideal (Motahharī, 2000; Shimamoto, 2008), and measures of these psychological processes do indeed predict higher levels of adjustment and sincere religious



commitments in Iran (e.g., Ghorbani, Watson, Rezazadeh, & Cunningham, 2011). In the present project, Iranian university students, therefore, responded to the Self-Control Scale (Tangney, Baumeister, & Boone, 2004) and to three measures assessing various aspects of self-knowledge: the Integrative Self-Knowledge (Ghorbani, Watson, & Hargis, 2008), Mindfulness (Brown & Ryan, 2003), and Reflection (Trapnell & Campbell, 1999) scales.

Four other measures evaluated intrapersonal maladjustment. Rumination (Trapnell & Campbell, 1999) and Impaired Control over Mental Activity (Sanavio, 1988) Scales recorded obsessive forms of thinking that point toward a maladaptive self-consciousness. Also administered were the two Levels of Self-Criticism Scales (Thompson & Zuroff, 2004). Internalized self-criticism measures negative self-evaluations based upon failures to live up to personal standards and seemed especially pertinent to guilt. Comparative self-criticism operationalizes negative self-evaluations based upon failures to compare favorably to others and seemed more relevant to shame (see e.g., Benedict, 1967).

Three subscales from the Interpersonal Problems Inventory assessed interpersonal maladjustment (Kim, Pilkonis, & Barkham, 1997). The Interpersonal Sensitivity, Interpersonal Ambivalence, and Aggression subscales all describe aspects of interpersonal functioning that have implications for understanding both shame and guilt. As Tangney (2003) points out, numerous studies demonstrate that shame predicts greater anger and aggression, and guilt is "generally associated with more constructive means of handling anger" (p. 390). Moreover, interpersonal sensitivity and ambivalence describe an unease in the presence of others that presumably should correlate directly with the TOSCA Shame Scale.

Procedures, therefore, evaluated the psychological implications of the TOSCA Shame and Guilt Scales by assessing intrapersonal adjustment and also intrapersonal and interpersonal maladjustment. A background assumption was that measures of adjustment would correlate positively with each other, as would operationalizations of maladjustment, and that negative correlations would appear between these two types of constructs.

#### **Hypotheses**

In summary, this investigation examined the TOSCA Shame and Guilt Scales in Iranian university students in order to test three broad sets of hypotheses based primarily upon the arguments of Tangney and Dearing (2002):

Hypothesis 1: The TOSCA Shame Scale will correlate negatively with intrapersonal adjustment and positively with intrapersonal and interpersonal maladjustment.

Hypothesis 2: The TOSCA Guilt Scale will correlate positively with intrapersonal adjustment and negatively with intrapersonal and interpersonal maladjustment.

Hypothesis 3: Women will score higher than men on the TOSCA Shame and Guilt Scales.

## Method

#### **Participants**

One hundred thirty-two students from the University of Tehran served as the research participants. These 61 women and 71 men had an average age of 22.0 years (SD = 2.3). This convenience sample included students pursuing 18 different majors that broadly represented the overall curriculum of the university.



#### **Materials**

An array of measures appeared in a single questionnaire booklet that included, but was not limited to, the instruments discussed in this project. Only the TOSCA had not been administered in previous Iranian investigations. Development of a Persian Integrative Self-Knowledge Scale occurred during scale development procedures (Ghorbani et al., 2008). For all other measures, one individual translated the scale expressed in English into Persian, and then another translated the Persian back into English. Discrepancies between original and backtranslated instruments were minor and easily resolved through revisions in the Persian translation. All measures employed 1-to-5 Likert scale response options. Scales appeared in the booklet in the order in which they are reviewed below.

**Integrative Self-Knowledge**. The 12 items of the Integrative Self-Knowledge Scale operationalize efforts of the individual to unite past, present, and desired future self-experience into a meaningful whole (Ghorbani et al., 2008). A representative items says, "If I need to, I can reflect about myself and clearly understand the feelings and attitudes behind my past behaviors."

**Test of Self-Conscious Affect (TOSCA)**. The third version of the TOSCA presents 11 negative and 5 positive scenarios to which respondents indicate their emotional reactions (Tangney & Dearing, 2002). One negative scenario says, for instance, "You make plans to meet a friend for lunch. At 5 o'clock you realized you stood up your friend." To self-report shame, participants use a 5-point response option to react to the statement, "You would think: 'I'm inconsiderate.'" Evaluation of guilt occurs in response to the claim, "You'd think you should make it up to your friend as soon as possible."

**Self-Criticism**. The Levels of Self-Criticism Scale includes a 10-item internalized and a 12-item comparative self-criticism measure (Thompson & Zuroff, 2004). Again, internalized self-criticism records a negative self-evaluation relative to failures to live up to personal standards (e.g., "I often get very angry with myself when I fail"). Comparative self-criticism instead reflects a negative estimation of the self in comparison to others (e.g., "I have a nagging sense of inferiority").

**Self-Control.** Thirteen statements make up the brief version of the Tangney et al. (2004) Self-Control Scale (e.g. "I refuse things that are bad for me").

**Mindfulness.** The Brown and Ryan (2003) Mindful Attention Awareness Scale uses 15 reverse scored statements to record mindfulness, which represents a kind of self-knowledge that is defined by an open awareness of ongoing self-experience (e.g., "I find it difficult to stay focused on what's happening in the present").

**Interpersonal Problems.** Subscales from Inventory of Interpersonal Problems Inventory assessed interpersonal sensitivity, interpersonal ambivalence, and aggression (Kim et al., 1997). Illustrative of the 10-item Interpersonal Sensitivity Scale is the self-report, "It is hard for me to trust other people." The Interpersonal Ambivalence Scale also contains 10 items and appears in such claims as, "It is hard for me to do what another person wants me to do." Seven items express aggression (e.g., "I fight with other people too much").

**Rumination-Reflection.** Each measure from the Rumination-Reflection Questionnaire includes 12 items (Trapnell & Campbell, 1999). Representative of rumination is the statement that "I often find myself reevaluating something I've done." Reflection is evident, for example, in the self-report that "I love exploring my 'inner' self."



**Impaired Control over Mental Activity.** The Sanavio (1988) Impaired Control over Mental Activity Scale uses 17 statements to assess tendencies toward obsessive thinking. Examples of this type of thinking appear in claims that "when I start thinking of certain things, I become obsessed with them" and that "unpleasant thoughts come into my mind against my will and I cannot get rid of them."

#### **Procedure**

All procedures complied with institutional regulations for the conduct of ethical research. Participation in the project was completely anonymous and wholly voluntary. In other words, no students received remuneration or special course consideration in return for their contributions to this project. Once recruited, all subjects completed the questionnaire. Researchers administered the questionnaire booklet to groups of varying size in a classroom environment.

Preliminary analyses revealed that two items from the Comparative Self-Criticism Scale produced a noteworthy lowering of internal reliability; so, final computation of this measure followed their elimination. The scoring of all instruments focused on the average response per item. Table 1 presents the Cronbach  $\alpha$ , mean, and standard deviation data for all measures and reveals that all internal consistencies proved to be adequate for research purposes. Data analyses began with an examination of correlations among scales. Given the predictions made for all relationships, procedures used directional, one-tailed tests of significance. A multivariate analysis of variance (MANOVA) then examined possible gender differences and also explored whether the two genders displayed different patterns of correlation among these measures.

Table 1
Internal Reliabilities and Descriptive Statistics for all Measures

Measure	α	Mean	Standard Deviation
Shame	.79	2.20	0.56
Guilt	.85	3.24	0.69
Integrative Self-Knowledge	.76	3.71	0.61
Self-Control	.76	3.30	0.43
Mindfulness	.84	3.20	0.51
Reflection	.73	3.40	0.51
Internalized Self-Criticism	.73	4.05	0.92
Comparative Self-Criticism	.71	3.50	0.92
Rumination	.79	2.97	0.58
Impaired Control over Mental Activity	.91	2.12	0.69
Interpersonal Sensitivity	.77	2.51	0.64
Interpersonal Ambivalence	.76	2.43	0.63
Aggression	.77	2.07	0.70

# Results

As Table 2 makes clear, the TOSCA Shame Scale correlated negatively with integrative self-knowledge and mindfulness and positively with internalized self-criticism, comparative self-criticism, rumination, and impaired control over mental activity.



Table 2

Correlations Among Measures

Measure	1.	2.	2. 3. 4. 5. 6. 7. 8. 9.	4.	5.	.9	7.	89	.6	9. 10.	11.	12.	13.
1. Shame		13	29***	13	15*	02	*41.	.33***	.22**	.25**	70.	.03	.12
2. Guilt			.25***	.13	.17*	*61.	20*	09	05	17*	08	16*	20*
3. IKS			1	.18*	.47***	.43***	38***	42***	36***	47***	43***	34***	41***
4. Self-Control					90:	.02	.13	00.	07	01	01	03	01
5. Mindfulness					1	*61.	31***	37***	27***	54***	29***	39***	38***
6. Reflection						,	10	09	.12	24**	21**	26***	33***
7. Internalized Self-Criticism								.45***	.40***	.39***	***14.	.31***	.37***
8. Comparative Self-Criticism									.24**	***14.	.38***	.36***	.38***
9. Rumination										.52***	.53***	.35***	.31***
10. Impaired Control over Mental Activity											.59***	.51***	.50***
11. Interpersonal Sensitivity												****	.58***
12. Interpersonal Ambivalence												ı	***64.
13. Aggression													-

Note. ISK is the Integrative Self-Knowledge Scale.  $^*p < .05. ^{**}p < .01. ^{***}p < .001.$ 



The TOSCA Guilt Scale predicted higher levels of integrative self-knowledge, mindfulness, and reflection and lower levels of internalized self-criticism, impaired control over mental activity, interpersonal ambivalence, and aggression. All other significant relationships conformed to theoretical expectations. In other words, measures of psychological adjustment correlated positively with each other as did indicators of psychological maladjustment, and negative relationships appeared between these two types of variables.

MANOVA results uncovered overall gender differences, Wilks' Lambda = .789, F(13, 118) = 2.43, p < .01. Women  $(4.44 \pm 0.09)$ , for example, scored higher than men  $(4.06 \pm 0.08)$  on guilt; but men  $(3.26 \pm 0.07)$  and women  $(3.14 \pm 0.07)$  did not differ on shame.

Perhaps more importantly, however, the two genders displayed a different pattern of correlations, Box's M = 157.768, F (91, 50532.905) = 1.49, p < .01. This outcome pointed toward a need to evaluate possible interactions of shame and guilt with gender in predicting the other constructs. The first step of multiple regression procedures, therefore, used gender and shame to predict each of the other measures, and then the second step examined their interaction. Guilt rather than shame and its interaction then served with gender as predictors in a second set of multiple regressions. Prior to these analyses, standardization of the two TOSCA measures addressed the potential problem of multicollinearity (Aiken & West, 1991).

Table 3

Prediction of Psychological Adjustment Measures Using Gender, Shame, and the Gender by Shame Interaction

		Step 1		Step 2	
Measure	$R^2$	β for Gender	β for Shame	$\Delta R^2$	β for Interaction
Guilt	.09**	27***	11	.00	.06
Integrative Self-Knowledge	.09**	.03	30**	.00	.07
Self-Control	.02	.01	13	.05*	.34*
Mindfulness	.05*	17*	13	.01	.16
Reflection	.00	02	01	.00	04
Internalized Self-Criticism	.03	.02	.16	.02	23
Comparative Self-Criticism	.12***	.09	.33***	.02	23
Rumination	.05*	08	.22*	.05*	35*
Impaired Control over Mental Activity	.08**	.15	.23***	.03*	29*
Interpersonal Sensitivity	29*	12	.08	.07**	41**
Interpersonal Ambivalence	.01	.11	.02	.05**	37**
Aggression	.02	.03	.12	.03*	28*

<sup>\*</sup>p < .05. \*\*p < .01. \*\*\*p < .001.

Table 3 reviews the regression results when shame, gender, and their interaction served as predictors. In these analyses, scoring of the gender variable employed 0 for women and 1 for men. Women, therefore, scored higher on guilt and mindfulness. Significant gender-by-sex interactions appeared for 6 other variables: self-control, rumination, impaired control over mental activity, interpersonal sensitivity, interpersonal ambivalence, and aggression. Figure 1 depicts these significant interactions and demonstrates that the TOSCA Shame Scale predicted psychological functioning in women but not in men. All these significant relationships for women conformed to theoretical expectations. Specifically, shame displayed a negative association with self-control and positive linkages with the five indices of maladjustment. For men, counterintuitive tendencies of shame to display negative linkages with interpersonal sensitivity ( $\beta = -.15$ ,  $\rho = .22$ ) and interpersonal ambiguity ( $\beta = -.19$ ,  $\rho = .12$ ) failed to reach statistical significance.



Only one noteworthy new outcome appeared when guilt replaced shame in these multiple regressions. Gender and guilt interacted to predict integrative self-knowledge:  $\Delta R^2$  = .04, p < .05 with the Interaction  $\beta$  = -.35, p < .05. This result occurred because guilt displayed a direct connection with integrative self-knowledge in women,  $\beta$  = .45, p < .001, but not in men,  $\beta$  = .13, p = .28.

# **Discussion**

As in numerous previous Western investigations (Tangney & Dearing, 2002), the TOSCA Shame and Guilt Scales in Iran predicted maladjustment and adjustment, respectively. Researchers often describe shame and guilt as self-conscious affects (e.g., Tangney, 1995), and the present data confirmed the relevance of these two emotions for "self-consciousness" in Iran. Specifically, the TOSCA Shame Scale, as a presumed form of maladaptive self-consciousness, displayed inverse linkages with the psychological benefits of integrative self-knowledge and mindfulness and positive associations with two measures of obsessive self-experience. Conversely, the TOSCA Guilt Scale, hypothesized to reflect adaptive self-consciousness, correlated positively with integrative self-knowledge, mindfulness, and self-reflection and also correlated negatively with the obsessiveness of impaired control over mental activity. Among other things, these relationships with self-knowledge measures were important in establishing the TOSCA instruments as relevant to psychological processes deemed to be crucial in achieving the Iranian Muslim moral ideal (Motahharī, 2000; Shimamoto, 2008).

Other possible linkages with moral functioning seemed apparent as well. Internalized and comparative self-criticism operationalized self-perceived failures to meet standards that have at least indirect implications for morality. Both correlated positively with the TOSCA Shame Scale. A stronger relationship of comparative self-criticism with shame seemed consistent with the assumption that this measure might be closer to the experience of shame than would be internalized self-criticism. In contrast, the TOSCA Guilt Scale exhibited a negative relationship with internalized self-criticism, suggesting perhaps that emotional guilt successfully prevented violations of personal standards. On the other hand, Giner-Sorolla, Piazza, and Espinosa (2011) recently argued that the TOSCA Guilt Scale does not so much measure an emotion as a motivation to put things right after transgressions of personal standards. The negative correlation of guilt with internalized self-criticism perhaps supported this alternative suggestion.

At least in terms of full sample correlations, only limited support appeared for the expectation that TOSCA Shame and Guilt Scales would predict interpersonal maladjustment. The TOSCA Shame Scale failed to correlate with any measure from the Inventory of Interpersonal Problems. As hypothesized, however, TOSCA Guilt did correlate negatively with interpersonal ambivalence and with aggression. This relationship with aggression supported the possibility that in Iran as elsewhere, guilt may have a potential to promote more constructive responses to anger (Tangney, 2003).

Attention to gender differences proved to be important. Iranian women scored higher than Iranian men on guilt, replicating a consistent effect observed in the West (Tangney & Dearing, 2002). However, the two genders did not differ in terms of their average levels of shame. The TOSCA Shame Scale did display a number of expected correlations with other measures in the full sample; so, it appeared to influence psychological functioning in males as well as in females. The failure of women to exhibit higher average levels of shame, nevertheless, stood in clear contrast to previous findings in the West (Tangney & Dearing, 2002).



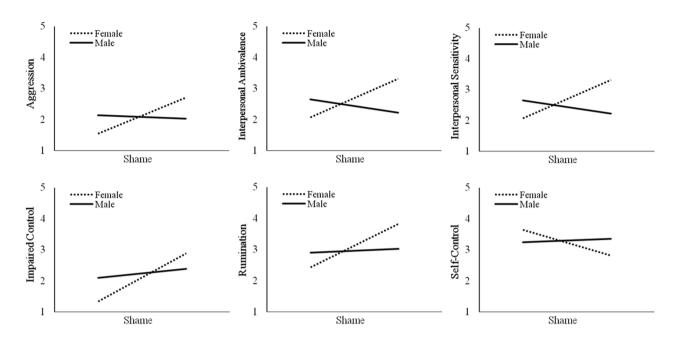


Figure 1. Significant interactions of gender and shame in predicting aggression, interpersonal ambivalence, interpersonal sensitivity, impaired control over mental activity, rumination, and self-control.

Especially noteworthy and unexpected were interactions between gender and the two TOSCA measures. These results had at least four implications. First, Iranian women seemed more sensitive and Iranian men more insensitive to shame. Women displayed six shame relationships with other variables that proved to be nonsignificant in men. Hence, Iranian women did fail to display the higher average TOSCA Shame scores that have been observed consistently elsewhere, but significant interactions still confirmed that shame was a more noteworthy feature of female psychological functioning in Iran.

Second, these gender differences could not be interpreted as evidence that women were more specifically vulnerable to the maladjusted potentials of self-conscious affect. This was so because gender also interacted with guilt to predict higher levels of integrative self-knowledge in women but not in men. The suggestion, therefore, was that women were generally more sensitive than men to both the adjusted and maladjusted potentials of self-conscious affect, a conclusion that conforms to previous research findings (e.g., Davis, 1983; Jonason, Lyons, Bethell, & Ross, 2013).

Third, interactions did not mean that Iranian men were wholly insensitive to the influences of shame and guilt. As noted already, significant full-sample TOSCA correlations with at least some of the other scales confirmed the psychological importance of shame and guilt as measured by the TOSCA in men as well as in women.

Finally, interactions produced additional support for the thinking behind the hypotheses of this project. Self-control seemed obviously relevant to moral psychological functioning both generally and also specifically in Iran (Motahharī, 2000; Shimamoto, 2008); yet, in the full sample, it failed to predict either shame or guilt. In women, however, self-control correlated negatively with the TOSCA Shame Scale. In addition, hypothesized shame linkages with interpersonal maladjustment failed to materialize in the full sample, but in women, TOSCA Shame scores did, as expected, correlate positively with interpersonal sensitivity, interpersonal ambiguity, and aggression.



Deserving emphasis is the fact the TOSCA Guilt Scale predicted better mental health in university-age Iranians. Previously, Furukawa et al. (2012) found that TOSCA Shame and Guilt measures displayed similar correlational implications in Korean, Japanese, and American children; however, Japanese studies examining university students suggest the TOSCA Guilt Scale does not display the linkages with adjustment that are often observed in the West. The present data, therefore, demonstrated that in at least some non-Western societies the TOSCA Guilt Scale can have adaptive implications in university student samples. Of course, not all non-Western societies are the same, and when combined with the observations of Furukawa et al. (2012), this apparent contrast between Japanese and Iranian TOSCA Guilt Scale results may point toward important cultural differences in the development of moral affects.

Relationships among the other, non-TOSCA scales conformed to expectations. Significant correlations among intrapersonal adjustment measures proved to be positive, as did the significant relationships among indices of intrapersonal and interpersonal maladjustment. In addition, all significant linkages between adjustment and maladjustment proved to be negative. Data for integrative self-knowledge were perhaps especially noteworthy because this was the only scale that exhibited expected relationships with all other measures. Such consistency seemed to support suggestions that self-knowledge may be a centrally important psychological ideal within Iranian and presumably other Muslim societies (Ghorbani et al., 2011).

#### Limitations

At least five limitations of this project necessitate caution in the interpretation of results. First, university students were not typical of the Iranian population. Research with more representative samples is necessary before the conclusions of this investigation can be generalized to wider Iranian society.

Second, Iran is a predominantly Shiite Muslim society; so, the present data may or may not parallel findings that would be obtained from Muslims living in a largely Sunni society or as a minority in a non-Islamic state.

Third, TOSCA scales can predict higher social desirability (e.g., Hasui et al., 2009), and in the present project, participants responded to morality-relevant measures in a group setting where demand characteristic could perhaps influence reactions to questionnaire items. Future research may need to explore those possibilities.

Fourth, conclusions from this project rested on interpretations of correlational data. Causal inferences, consequently, cannot be made. It cannot be argued, for example, that shame caused rumination or that rumination cause shame. Both could have been the correlated by-products of another process.

Finally, and most basically, emphasis should be placed on the fact that the present data speak specifically about the TOSCA operationalizations of shame and guilt. Dost and Yagmurlu (2008) argue that the TOSCA characterization of shame as maladaptive and guilt as adaptive is too simplistic and that both affects can reflect adjustment and maladjustment. They marshal conceptual arguments and previous empirical findings based upon shame and guilt scales sometimes other than the TOSCA to support their claim. Indeed, numerous investigations have employed such other measures in examining samples from various Middle Eastern communities, including those, for example, from Egypt (Johnson et al., 1989), Turkey (Ersoy, Born, Derous, & van der Molen, 2011), Lebanon (Bierbrauer, 1992), and Iran (Tamini, Bojhd, & Yazdani, 2011). Dost and Yagmurlu most importantly interpret this literature to suggest that guilt can have negative mental health implications even when statistical procedures control for its covariance with greater shame. In short, the findings and conclusions of this investigation may need to be supplemented by research programs that take a broader perspective on shame and guilt.



#### **Conclusions**

This study most importantly confirmed that TOSCA Shame and Guilt Scales in Iran had psychological implications similar to those observed in the West. Shame predicted maladjustment, and guilt predicted adjustment. As a formally Islamic society, Iran presumably represents a cultural environment that more strongly nurtures interdependent personality functioning in contrast to the "secular" West where independence is the more prominent developmental ideal (Kitayama et al., 1995). These results, therefore, supplemented previous evidence to suggest that shame and guilt, at least as measured by the TOSCA, can function similarly in these two cultural contexts (Furukawa et al., 2012).

The present data also pointed toward a need to further explore self-conscious affects in Iran. Three possibilities were perhaps most obvious. First, the TOSCA Shame Scale displayed positive associations with all three measures of interpersonal maladjustment only in women, and in men, the nonsignificant tendency was for the relationships with interpersonal sensitivity and interpersonal ambiguity to be negative. Of interest is the possibility that these counterintuitive outcomes for men might become significant with the examination of a larger, more statistically powerful sample size. If such negative relationships did appear, it might be of interest to determine if they reflect the influence of psychological defenses in Iranian men.

Second, this investigation confirmed hypotheses about the relationships of TOSCA Shame and Guilt Scales with intrapersonal adjustment and maladjustment and with interpersonal maladjustment. However, this project examined no measure of interpersonal adjustment. Studies in the West demonstrate that these two TOSCA measures correlate predictably with the interpersonal adjustment of empathy (Tangney, 2003). It would be important to determine if such relationships occur in Iran as well.

Finally, the theoretical focus of this investigation was on shame and guilt. The TOSCA includes four other subscales that are relevant to self-conscious affect, including measures of pride in the self and in behavior, an externalization of blame, and detachment. Theoretical and psychometric considerations have meant that these scales have received relatively less research attention (Tangney & Dearing, 2002). It would be of interest to examine them as well in order to more fully understand the dynamics of self-conscious affect in Iran.

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