

The Test of Self-Conscious Affect-3 in Japanese University Students

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Abstract: The psychometric properties of the Japanese Test of Self-Conscious Affect-3 (TOSCA-3), a self-report measure of self-conscious emotions, were examined in Japanese university students. Confirmatory factor analyses showed good fits of the theory-driven model for 6 emotions to the data. The subscales of the TOSCA-3 showed moderate correlations and internal consistency. Only the Shame subscale was greater among younger students, but women had higher shame and guilt than men. Social desirability moderately influenced some subscales. Test-retest reliability was good for shame and guilt. Time 1 shame predicted time 2 depression a week later. The Japanese version of the TOSCA-3 is a reliable and valid measure of self-conscious emotions among a Japanese population.

Key Words: Self-conscious affect, shame, guilt, psychometric properties.

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Shame and guilt have been viewed as important issues for understanding psychodynamics, particularly in psychoanalytic scholars, but empirical studies were scarce until the development of measuring instruments (Tangney, 1996). Recent researchers have considered that some types of emotions are self-conscious; the target of emotion is oneself. These include shame, guilt, pride, and embarrassment, and are distinct from each other (Tangney et al., 1996). Tangney et al. developed the Self-Conscious Affect and Attribution Inventory (Tangney, 1990; 1991) and later the Test of Self-Conscious Affect (TOSCA; Tangney et al., 1992). The TOSCA includes (1) shame, (2) guilt, (3) externalization, (4) detachment, (5) alpha pride, and (6) beta pride. Tangney has asserted that the object of concern in guilt is a specific action (or failure of action), whereas that in shame is the entire self (Niedenthal et al., 1994). Thus, shame rather than guilt is directed toward the anger feeling (Tangney et al., 1992) or to depression (Ghatavi et al., 2002; Quiles and Bybee, 1997; Tangney et al., 1992) and other psychopathology (Tangney et al., 1992). However, most these previous studies are cross-sectional. There are few studies using the TOSCA in the Asian language, for example, Indian (Anolli and Pascucci, 2005). This article reports the reliability and validity of the TOSCA using a Japanese student population.

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STUDY 1

Methods

Participants

A questionnaire was distributed to a total of 622 university students from different faculties (medical, nursing, and other) at 3 universities in Japan. There were 78 men and 537 women (7 did not identify gender). Their mean age (*SD*) was 20.9 (2.7) years with the range between 18 and 40. In this study, women ($M = 20.6$, $SD = 2.4$) were significantly ($t = 5.6$, $p < 0.000$) younger than men ($M = 23.1$, $SD = 3.7$).

Measures

Test of Self-Conscious Affect-3

This is a self-report measure of 6 self-conscious affects — shame, guilt, externalization, detachment, alpha pride, and beta pride (Tangney et al., 2000). The TOSCA-3 consists of a series of 11 negative and 5 positive scenarios with 4 or 5 responses reflecting 1 of the 6 affects. Each response is rated with a 5-point scale from “not likely” to “very likely.” We allocated between 0 to 4 points for each item. An example of a negative scenario is “You make plans to meet a friend for lunch. At 5 o’clock, you realize you stood him up.” For this there are items reflecting shame (You would think: “I’m inconsiderate.”), guilt (You’d think you should make it up to him as soon as possible), externalization (You would think: “My boss distracted me just before lunch.”), and detachment (You would think: “Well, they’ll understand.”). An example of positive scenario is “You are out with friends one evening, and you’re feeling especially witty and attractive. Your best friend’s spouse seems to particularly enjoy your company.” For this there are items reflecting guilt (You would think: “I should have been aware of what my best friend is feeling.”), shame (You would probably avoid eye-contact for a long time), externalization (You would think your best friend should pay attention to his/her spouse), alpha pride (You would feel happy with your appearance and personality), and beta pride (You would feel pleased to have made such a good impression). The TOSCA-3 was translated into Japanese by a bilingual graduate student of the original author of the scale. A second bilingual graduate student familiar with the literature on shame and guilt back-translated the measure and compared it the original English.

Social Desirability Scale

To control the effects of social desirability on the response style of the participants, the Japanese version (Kitamura and Suzuki, 1986) of the Social desirability scale (SDS) was included in the questionnaire (Crowne and Marlowe, 1960). The original SDS consists of 33 items, but was reduced to 10 items to suit the Japanese population. Respondents used a 5-point scale (0–4) to rate each item. The total SDS score can range between 0 and 40. A higher SDS score indicates a greater tendency to respond in a socially desirable manner.

Procedures

All the questionnaires were distributed and returned during a class. The research protocol was approved by the Ethical Committee

(Institutional Review Board) of Kumamoto University Graduate School of Medical Sciences.

RESULTS AND DISCUSSION

The item-subscale score correlations only for those items that belonged to each TOSCA subscale were 0.24 to 0.54 for shame; 0.34 to 0.54 for guilt; 0.32 to 0.52 for externalization; 0.26 to 0.65 for detachment; 0.54 to 0.66 for alpha pride; and 0.47 to 0.61 for beta pride (Table available upon request to the authors). Only a few items showed a correlation of 0.4 or more for subscale scores that they do not belong. Cronbach's alpha coefficients were 0.455 to 0.738 for the TOSCA-3 subscales. In the confirmatory factor analysis of each TOSCA-3 subscale, satisfactory goodness-of-fit indices were obtained. X^2/df ranged between 1.5 and 3.5; goodness-of-fit index between 0.950 and 0.994; adjusted goodness-of-fit index between 0.929 and 0.983; comparative fit index between 0.836 and 0.982; and root mean square error of approximation between 0.030 and 0.064. There were regard as adequate (Schermelleh-Engel et al., 2003).

Shame and guilt ($r = 0.50$), externalization and detachment ($r = 0.39$), and alpha and beta prides ($r = 0.64$) were correlated. Shame was also correlated positively with externalization ($r = 0.25$) but negatively with detachment ($r = -0.16$). Guilt was negatively correlated with externalization ($r = -0.12$) and detachment ($r = -0.19$). Externalization and detachment were both correlated with alpha ($r_s = 0.20, 0.25$) and beta prides ($r_s = 0.17, 0.28$).

Among the TOSCA-3 subscale scores, only the shame score was negatively correlated with age. Externalization, detachment, and alpha and beta prides did not differ between men and women. However, both the shame and guilt scores were greater among women than men: the mean (SD) of shame was 30.8 (8.6) for men and 34.7 (8.0) for women ($p < 0.001$), but the mean (SD) of guilt was 45.2 (6.6) for men and 46.8 (6.3) for women ($p < 0.05$).

The SDS score was moderately correlated with some of the subscale scores. However, the magnitude of the links was modest, between 0.05 and 0.17.

The present results indicate that the Japanese version of the TOSCA-3 is a reliable measure of the self-conscious affects with a good internal consistency and factor structure, which corresponds to the theory in a university student population.

STUDY 2

Methods

Participants

An identical set of questionnaires was distributed to university students in nursing sciences on 2 occasions separated by a week interval. On the first occasion, 226 students participated in the study. However, a week later 51 of them declined. Hence, we obtained a completed set of questionnaires from 175 students. Ninety percent of the students who participated on the both occasions were women ($n = 157$).

Measures

Test of Self-Conscious Affect-3

We used the TOSCA-3 on both occasions (Tangney, et al., 2000).

Depression

The SDS-Z (Zung, 1965) is a self-report of depression that has been widely used. It consists of 20 items rated on a 4-point scale from a little of the time (1) to most of the time (4). The Japanese version of the SDS-Z (Fukuda and Kobayashi, 1973) is available. For the present study, 7 items were extracted from the SDS. These

items showed high factor loadings on the first factor in a large scale ($N = 28,588$) factor analytic study of the instrument in Japanese university students (Kitamura et al., 2004). These items reflect irritability, depressed affect, fatigue, crying spells, psychomotor agitation, tachycardia, and suicidal ideation.

Negative Life Events

A single item was used to ask each participant about the worst thing he or she had experienced in the previous week. He or she was asked to rate the experience from 0 (no adverse effect) to 100 (the worst ever thought of).

Procedures

All the questionnaires were distributed and returned during a class on 2 occasions separated by a week. The research protocol was approved by the Ethical Committee (Institutional Review Board) of Kumamoto University Graduate School of Medical Sciences.

RESULTS AND DISCUSSION

The correlations of the TOSCA-3 subscale scores between the 2 occasions were 0.706 ($p < 0.001$) for shame, 0.583 ($p < 0.001$) for Guilt, 0.661 ($p < 0.001$) for externalization, 0.672 ($p < 0.001$) for detachment, 0.084 (NS) for alpha pride, and 0.108 (NS) for beta pride. The mean scores of shame, guilt, and externalization did not differ between the 2 occasions. However, the mean scores of detachment, alpha pride, and beta pride were significantly higher on the second occasion. Thus, the TOSCA-3 subscales except for detachment, alpha and beta prides showed good test-retest reliability.

To confirm the predictive power of shame on depression, time 2 depression was regressed on several steps. First, demographic variables, including sex and age, were entered. Then time 1 depression, time 2 negative life events, time 1 pride category (alpha pride and beta pride), time 1 attribution category (externalization and detachment), and finally time 1 self-blame category (shame and guilt) were regressed. In the regression analysis, the demographics were not a significant predictor of time 2 depression (R^2 increase = 0.003; F change = 0.26, $p = 0.774$). As expected, time 1 depression (R^2 increase = 0.308; F change = 69.37, $p = 0.000$) and time 2 negative life events (R^2 increase = 0.052; F change = 12.46, $p = 0.001$) strongly predicted time 2 depression. Then entered to the formula were time 1 pride (alpha pride and beta pride) and time 1 attribution (externalization and detachment). Neither of these predictor variables showed a significant predictive power (prides; R^2 increase = 0.001; F change = 0.06, $p = .938$; attributions; R^2 increase = 0.001; F change = 0.08, $p = 0.924$). Finally, time 1 shame and guilt were entered (R^2 increase = 0.026; F change = 3.17, $p = 0.045$). Time 1 shame significantly predicted time 2 depression ($\beta = 0.235$, $p < .05$), but time 1 guilt failed to be a significant predictor of time 2 depression ($\beta = -0.143$, NS).

In Study 2, moderate test-retest reliability is obtained for shame, guilt, and externalization. The correlation of the detachment scores is moderate between the 2 occasions, but the detachment score increased on the second occasion. The 2 pride scores are higher on the second occasion, but the correlation between the 2 occasions is poor.

As expected, depression in the second occasion is predicted substantially by depression on the first occasion and the adverse experience which occurred in the week before the second occasion. After controlling for these variables, externalization, detachment, alpha pride, or beta pride measured on the first occasion did not predict depression on the second occasion. The final entry of shame and guilt measured on the first occasion into the regression formula shows that only shame significantly predicts depression on the second occasion. Our finding is consistent with the previous studies

on shame-proneness and depression, but the strength of our study is the adoption of a prospective research design.

CONCLUSION

In the 2 studies, we have demonstrated the Japanese version of TOSCA-3 and, in particular, the shame and guilt subscales are reliable and valid measures of self-conscious emotions. However, pride measures are less stable, which may reflect an emotional state rather than a trait.

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