

A SHORT VERSION OF THE STATE SHAME AND GUILT SCALE (SSGS-8)

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Shame and guilt are crucial emotions regulating individuals' interactions with the surrounding environment as well as social relations and the development of the self. However, regardless of their importance, the debate about the selection of quantitative empirical measures in contexts requiring an assessment of both emotions remains still open. The present study examines the reliability and validity of the Italian short version of the State Shame and Guilt Scale (SSGS-8) in a sample of undergraduate students. Confirmatory factor analyses suggested a robust model of measurement with good psychometric properties, and it confirmed the two-factor structure composed by Shame and Guilt. The results of the study supported the adoption of the Italian version of the SSGS-8 scale as a reliable tool to assess shame and guilt in Italian-speaking populations. In this perspective, SSGS-8 could be adopted in training programs and clinical contexts.

Key words: Shame; Guilt; State Shame and Guilt Scale reliability; State Shame and Guilt Scale validity; Self-conscious emotions.

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The literature of the last fifteen years has focused on the analysis of shame and guilt, outlining their prominent role in motivating and regulating almost all of people's thoughts, feelings, and behaviors (Tangney & Dearing, 2002). These self-conscious emotions together regulate individuals' interactions with the surrounding environment as well as many of the social behaviors adopted in interpersonal situations. From a theoretical standpoint, recent empirical advances have demonstrated that shame and guilt are separate emotions with different implications for psychological adjustment (Tangney, Stuewig, Malouf, & Youman, 2013). While guilt appears when individuals attribute an adverse outcome to unstable internal causes (e.g., "I didn't try hard enough"), in contrast, shame is more linked to stable internal causes (e.g., "I'm a dumb person") (Tangney & Dearing, 2002).

On one hand, feelings of shame are often accompanied by a sense of shrinking or of "being small," and by a sense of worthlessness. Therefore, anxiety can be correlated with shameful feelings and with the desire to move away from the negative situation.

On the other hand, guilt is usually a less persistent experience because the object of condemnation is a specific behavior, not the entire self. Therefore, anxiety can be linked with guilty feelings that lead to tension, remorse, and the desire to repair the transgression committed (Tangney & Dearing, 2002).

Direct assessment of shame and guilt has proceeded primarily along two research lines: scenario-based measures (such as Test of Self-Conscious Affect; Tangney & Dearing, 2002) and adjective checklists (such as Personal Feelings Questionnaire-2; Harder & Zalma, 1990), but all these scales divorce shame and guilt from the specific contexts in which they occur and make no reference to the specific elements (e.g., phenomenological, motivational, behavioral) of either emotion.

To our knowledge, the only self-rating scale developed to assess state feelings of shame and guilt experiences is the State Shame and Guilt Scale (SSGS; Marschall, Sanftner, & Tangney, 1994). The original version of the SSGS is composed of 15 items (five for each of the three subscales: shame, guilt, and pride), that are rated on a 5-point Likert scale. The SSGS is composed of a brief phenomenological description of shame (“I feel small” and “I feel humiliated, disgraced”), guilt (“I feel remorse, regret” or “I feel like apologizing, confessing”), and pride (“I feel good about myself” and “I feel capable, useful”). Over the years, the SSGS has been used as a manipulation check measure in experimental studies (Marschall, 1996), to assess self-conscious emotions related to ethical or unethical behaviors (Gino, Ayal, & Ariely, 2013), or to explore guilt and shame after complex traumatic experiences (Held, Owens, & Anderson, 2015). The pride subscale has received less attention and was not included into the current study on SSGS.

The advantages of the SSGS compared to the previous measures are: a) it is a self-report questionnaire that can assess state shame and guilt feelings in an effective and feasible way; b) it can be used in many different situations such as experimental settings, clinical contexts, learning situations. Given the relative paucity and controversies surrounding the attempts of quantitatively operationalizing these two constructs, the present study aims at developing and psychometrically testing the Italian version of the SSGS. No self-report measures have been so far available in Italian to assess state levels of shame and guilt experienced by subjects. We thus believe that the adaptation and development of a reliable model of measurement for the SSGS in the Italian context constitutes a valuable contribution to the repertoire of test instruments in psychology.

METHODS

Participants and Procedure

The data stemmed from a convenience sample of 203 Italian young adults (77% female). Mean age was 22.64 ($SD = 4.37$, range 18-37). Respondents were enrolled in different courses of studies of the University of Milano-Bicocca. The research was conducted using the American Psychological Association's (2010) ethical principles and codes of conduct.

The questionnaire was translated from English into Italian, according to the guidelines specified by the International Test Commission (2001) using the back-translation procedure. Back-translation was undertaken by an English native speaker. Among 207 respondents who accepted to participate, 203 (98%) completed the survey.

Measures

State Shame and Guilt Scale (SSGS). The SSGS (Marschall, Sanftner, & Tangney, 1994) was used within an experimental study concerning shame and empathy (Marschall, 1996). Participants were asked to indicate how much each of 15 statements describe their personal feelings in that moment on a 5-point Likert scale (1 = *not feeling in this way*; 5 = *feeling this way very strongly*). In Table 1, the items belonging to the factor of the original scale is reported.

TABLE 1
Items of the original version of the State Shame and Guilt Scale (SSGS)

Items of the original version of the SSGS	Factor
Item 1	Pride
Item 2	Shame
Item 3	Guilt
Item 4	Pride
Item 5	Shame
Item 6	Guilt
Item 7	Pride
Item 8	Shame
Item 9	Guilt
Item 10	Pride
Item 11	Shame
Item 12	Guilt
Item 13	Pride
Item 14	Shame
Item 15	Guilt

In college-age samples, the measure had good levels of internal consistency, test-retest reliability, predictive and convergent validity (alpha ranged from .82 to .89, for each subscale; Tangney & Dearing, 2002).

State-Trait Anxiety Inventory (STAI). The STAI (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983; Italian validation by Pedrabissi & Santinello, 1989) evaluates the presence and severity of current levels of anxiety (State Anxiety Scale, S), as well as proneness to experience anxiety (Trait Anxiety Scale, T). In the present study, the S subscale was adopted to test the convergent validity (of SSGS); its alpha was .97.

Data Analytic Strategy

The roadmap of the present data analysis was planned to include two procedural steps. First, item means, standard deviations, skewness and kurtosis (i.e., indexes of distribution) were explored, in order to evaluate the required assumptions for applying confirmatory factor analysis

(CFA). During the second phase, the baseline factor structure was tested through CFA, conducted with maximum likelihood (ML) estimation (Kline, 2015).

In line with common recommendations in the field of measure development (Hu & Bentler, 1999), the following absolute and relative indexes were applied: model χ^2 , root mean square errors of approximation (RMSEA), standardized root mean square residual (SRMR), comparative fit index (CFI). Cut-off values for model acceptance were .08 for RMSEA and SRMR, and .95 for CFI (Morin, Marsch, & Nagengast, 2013). All analyses were conducted with Amos 21 (Arbuckle, 2011). Reliability of measures was assessed by adopting Cronbach's alpha and, since there was not strong evidence for tau-equivalence of SSGS's indicators, also composite reliability was calculated (Raykov, 1997).

RESULTS

Table 2 reports means, standard deviations, skewness for all the items included in the Italian version of the State Shame and Guilt Scale. Data revealed no major violation of the basic assumptions for their use in confirmatory factor analysis. Since the aim of the present study was to develop a reliable measure of shame and guilt in the Italian context, only the original items referring to these two dimensions were used in CFA (during preliminary exploratory analyses, original Items 3 and 8 reported double factor loadings; consequently they were skipped in further analyses).

TABLE 2
Descriptive statistics for items of SSGS

	<i>M</i>	<i>SD</i>	Skewness
Item 2	2.57	1.53	0.42
Item 5	2.85	1.53	0.08
Item 6	3.09	1.41	-0.09
Item 9	2.59	1.46	0.40
Item 11	2.44	1.50	0.56
Item 12	2.71	1.64	0.24
Item 14	2.69	1.53	0.25
Item 15	2.78	1.58	0.20

The measurement model for SSGS, tested via CFA, reported good indexes of fit: $\chi^2 = 36.46$, $p = .09$; RMSEA = .067; SRMR = .045; CFI = .98. It is interesting to note that the model converged to a good fit with all the observed indicators showing a significant relation with their corresponding dimension. In Figure 1, the measurement model of the State Shame and Guilt Scale (henceforth referred to as SSGS-8) is reported; item loadings and standard errors are reported in Table 3.

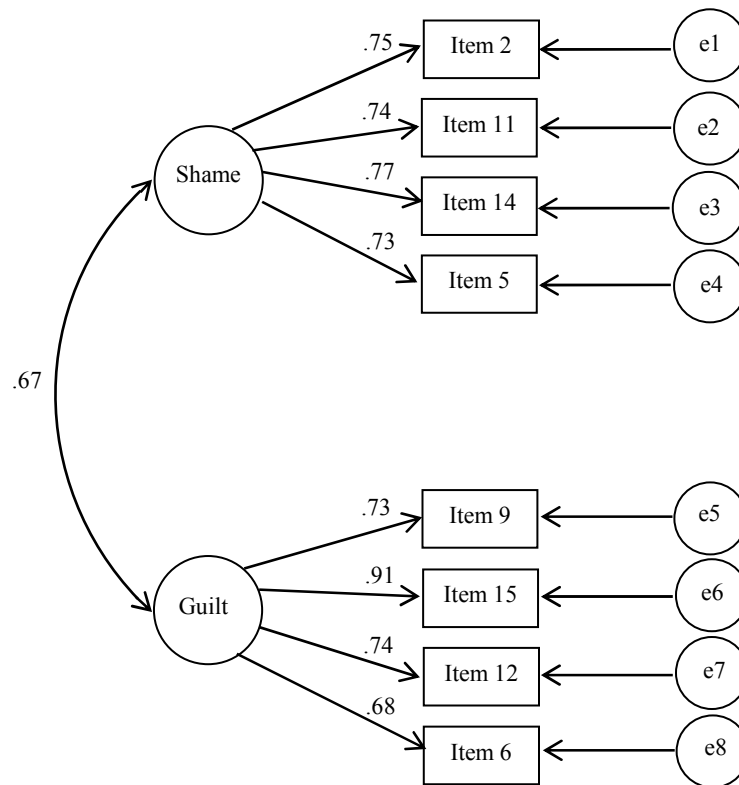


FIGURE 1
 SSGS-8 two factor model.

TABLE 3
 Results of CFA: regression weights and standard errors

		Loading	SE	CR	<i>p</i> <
Shame	Item 2	.75	–		
	Item 11	.74	.10	9.74	.001
	Item 14	.77	.10	10.10	.001
	Item 5	.73	.10	9.47	.001
Guilt	Item 9	.73	–		
	Item 15	.91	.11	11.99	.001
	Item 12	.74	.11	10.13	.001
	Item 6	.68	.09	9.31	.001

Note. CR = Critical test ratio or Wald's test (Fears, Benichou, & Gail, 1996).

In Table 4 are summarized the main psychometric properties of the two measures (shame, guilt) included into the SSGS-8 as well as their asymmetry values. Correlations of SSGS-8 scores with STAI-S values were as follows: guilt ($r = .38, p < .001$), shame ($r = .49, p < .001$).

TABLE 4
 Main psychometric properties of the SSGS-8

	<i>M</i>	<i>SD</i>	Alpha	<i>C</i> σ	Skewness	<i>SE</i>
Shame	2.63	1.24	.82	.84	0.47	.23
Guilt	2.79	1.26	.87	.86	0.24	.23

Note. *C* σ = Composite reliability (Raykov, 1997).

DISCUSSION

The aim of the present paper was to adapt and develop the State Shame and Guilt Scale through the test of its measurement model, internal consistency, and convergent validity, in a sample of Italian undergraduate students. A new version of the SSGS, labeled SSGS-8, was devised showing adequate metric properties in the Italian context¹. The main results suggested that the factor structure of SSGS-8 substantially resembles the original model of measurement (Marshall et al., 1994). Confirmatory factor analysis supported an empirical solution composed of two main dimensions, labeled “shame” and “guilt” with robust psychometric properties. Moreover, the subscales of SSGS-8 were normally distributed, meaning that the questionnaire may be used as a quantitative screening tool for assessing states of shame and guilt. The present shorter version can increase the ability of the instrument to capture the emotional experience intensity in a proper time window. In fact, it is possible to develop short versions of existing instruments in order to reduce fatigue of respondents without relevant consequences in term of psychometric proprieties (Fiorilli et al., 2015; Grazzani, Ornaghi, Pepe, Brazzelli, & Rieffe, 2017; Pepe & Addimando 2014; Veronese & Pepe, 2013, 2016).

With regard to the adoption of the SSGS-8 as a screening tool, the following reflections are provided. From a theoretical viewpoint, shame and guilt should be considered as distinct, but positively and moderately correlated ($r = .67$) dimensions. From a practical point of view, the SSGS-8 can be used as a measure of manipulation check, after the elicitation of shame and guilt, in order to detect accurate nonverbal expressions linked with negative emotional experiences, in private or public situations (Cavalera & Anolli, 2013; Zurloni et al., 2015). In this perspective, SSGS-8 could help teachers and counselors to create training programs to develop a better attitude during stressful situations (e.g., job interviews, university exams). This tool could be used to explore how shame and guilt affect sport performance levels during different tasks and moments (Cavalera et al., 2015), or to assess the presence of negative self-conscious emotions in clinical contexts (Cavalera et al., 2016).

The above results, however, show two types of limitations. The first limitation is the reliance on an undergraduate sample of students. The sample used and its size require caution in generalizing our results. A second limitation is that all variables were self-report, which introduces potential method bias. Future research designs should consider the opportunity to include also implicit measures, such as physiological parameters (sympathetic and parasympathetic activation, heart rate, vagal withdrawal, increased cortisol), in order to better understand the nature and boundaries of these distinct self-conscious emotions.

NOTE

1. The Italian version of the items is available upon request from the first author.

REFERENCES

- American Psychological Association. (2010). 2010 Amendments to the 2002 "Ethical principles of psychologists and code of conduct". *American Psychologist*, *65*, 493. doi:10.1037/a0020168
- Arbuckle, J. L. (2011). *Amos* (Version 21) [Computer software]. Chicago, IL: IBM SPSS.
- Cavalera, C., & Anolli, L. (2013). The enigma of blushing. *Giornale Italiano di Psicologia*, *40*, 155-174. doi:10.1421/73989
- Cavalera, C., Diana, B., Elia, M., Guldberg, K. J., Zurloni, V., & Anguera, M. T. (2015). T-pattern analysis in soccer games: Relationship between time and attack actions. *Cuadernos de Psicología del Deporte*, *15*, 41-50. doi:10.4321/s1578-84232015000100004
- Cavalera, C., Pagnini, F., Zurloni V., Diana, B., Realdon O., Castelnuovo, G., . . . & Molinari, E. (2016). Shame proneness and eating disorders: A comparison between clinical and non-clinical samples. *Eating and Weight Disorders-Studies on Anorexia, Bulimia and Obesity*, *21*, 701-707. doi:10.1007/s40519-016-0328-y
- Fears, T. R., Benichou, J., & Gail, M. H. (1996). A reminder of the fallibility of the Wald statistic. *The American Statistician*, *50*, 226-227. doi:10.2307/2684659
- Fiorilli, C., De Stasio, S., Benevene, P., Iezzi, D. F., Albanese, O., & Pepe, A. (2015). Copenhagen Burn-out Inventory (CBI): A validation study in the Italian teacher sample. *TPM – Testing, Psychometrics, Methodology in Applied Psychology*, *22*, 1-16. doi:10.4473/TPM22.4.7
- Gino, F., Ayal, S., & Ariely, D. (2013). Self-serving altruism? The lure of unethical actions that benefit others. *Journal of Economic Behavior & Organization*, *93*, 285-292. doi:10.1016/j.jebo.2013.04.005
- Grazzani, I., Ornaghi, V., Pepe, A., Brazzelli, E., & Rieffe, C. (2017). The Italian version of the Empathy questionnaire for 18- to 36-months old children: Psychometric proprieties and measurement invariance across gender of the EmQue-I13. *European Journal of Developmental Psychology*, *14*, 118-126. doi:10.1080/17405629.2016.1140640
- Harder, D. H., & Zalma, A. (1990). Two promising shame and guilt scales: A construct validity comparison. *Journal of Personality Assessment*, *55*, 729-745. doi:10.1080/00223891.1990.9674108
- Held, P., Owens, G. P., & Anderson, S. E. (2015). The interrelationships among trauma-related guilt and shame, disengagement coping, and PTSD in a sample of treatment-seeking substance users. *Traumatology*, *21*, 285-292. doi:10.1037/trm0000050
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*, 1-55. doi:10.1080/10705519909540118
- International Test Commission. (2001). International guidelines for test use. *International Journal of Testing*, *1*, 93-114. doi:10.1207/s15327574ijt0102_1
- Kline, R. B. (2015). *Principles and practice of structural equation modeling*. New York, NY: Guilford Press.
- Marschall, D. (1996). *Effects of induced shame on subsequent empathy and altruistic behavior* (Unpublished master's thesis). George Mason University, Fairfax, VA.
- Marschall, D., Sanftner, J., & Tangney, J. P. (1994). *The State Shame and Guilt Scale*. Fairfax, VA: George Mason University.
- Morin, A. J. S., Marsh, H. W., & Nagengast, B. (2013). Exploratory structural equation modeling. In G. R. Hancock & O. M. Mueller (Eds.), *Structural equation modeling: A second course* (2nd ed., pp. 395-436). Charlotte, CN: Information Age Publishing.
- Pedrabissi, L., & Santinello, M. (1989). *Inventario per l'ansia di 'Stato' e di 'Tratto'* [State-trait anxiety inventory]. Firenze, Italy: Giunti O.S.
- Pepe, A., & Addimando, L. (2014). Teacher-parent relationships: Influence of gender and education on organizational parents' counterproductive behaviors. *European Journal of Psychology of Education*, *29*(3), 503-519.

- Raykov, T. (1997). Estimation of composite reliability for congeneric measures. *Applied Psychological Measurement, 21*(2), 173-184.
- Spielberger, C. D., Gorsuch, R. L., Lushene, R., Vagg, P. R., & Jacobs, G. A. (1983). *Manual for the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Tangney, J. P., & Dearing, R. L. (2002). *Shame and guilt*. New York, NY: Guilford Press.
- Tangney, J. P., Stuewig, J., Malouf, E. T., & Youman, K. (2013). Communicative functions of shame and guilt. In K. Sterelny, R. Joyce, B. Calcott, & B. Fraser (Eds.), *Cooperation and its evolution* (pp. 485-502). Cambridge, MA: MIT Press.
- Veronese, G., & Pepe, A. (2013). Psychometric properties of the Impact of Event Scale (short version) in contexts of military violence. *Research on Social Work Practice, 23*(6), 710-718.
- Veronese, G. & Pepe, A. (2016). Positive and Negative Affect in children living in refugees camps: Assessing the psychometric proprieties and factorial invariance of the PANAS-C in the Gaza Strip. *Evaluation & the Health Professions*. Advance online publication. doi:10.1177/0163278715625741
- Zurloni, V., Diana, B., Cavalera, C., Argenton, L., Elia, M., & Mantovani, F. (2015). Deceptive behavior in doping related interviews: The case of Lance Armstrong. *Psychology of Sport and Exercise, 16*(2), 191-200.