

## Two-Dimensional Self-Esteem: Adaptation of the Self-Liking/Self-Competence Scale into Turkish: A Validity and Reliability Study

### İki Boyutlu Benlik Saygısı: Kendini Sevme/Özyeterlik Ölçeği'nin Türkçe Uyarlaması, Geçerlik ve Güvenirlik Çalışması

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#### Abstract

The objective of this study is to adapt the Self-Liking/Self-Competence Scale developed by Tafarodi and Swan (2001) into Turkish and to investigate its psychometric properties in a sampling made up of university students. A total of 604 students from Sakarya University and Hacettepe University participated in the research. The psychometric properties of the scale were analyzed by means of item analysis, internal consistency, test-retest, confirmatory factor analysis (CFA) and criterion-related validity methods. As a result of the CFA, the two-factor structure of the scale was confirmed as in its original form. The Cronbach's alpha coefficient was found to be .83 for the "self-liking" and .74 for the "self-competence". On the other hand, the test-retest reliability coefficient was found to be .72 for both factors. The findings obtained showed that the Self-Liking/Self-Competence Scale had sufficient levels of validity and reliability in the measurement of self-esteem.

*Keywords:* Self-esteem, adaptation of scale, factorial structure

#### Öz

Bu çalışmanın amacı, Tafarodi ve Swan (2001) tarafından geliştirilen Kendini Sevme/Özyeterlik Ölçeği'nin Türkçeye uyarlanması ve üniversite öğrencilerinden oluşan bir örnekleme psikometrik özelliklerinin incelenmesidir. Araştırmaya Sakarya Üniversitesi ve Hacettepe Üniversitesi'nden toplam 604 öğrenci katılmıştır. Ölçeğin psikometrik özellikleri madde analizi, iç tutarlık, test-tekrar test, doğrulayıcı faktör analizi (DFA) ve ölçüt bağıntılı geçerlik yöntemleriyle incelenmiştir. DFA sonucu ölçeğin özgün formunda olduğu gibi iki faktörlü yapısı doğrulanmıştır. Cronbach Alfa iç tutarlık katsayısı Kendini Sevme alt boyutu için .83, Özyeterlik alt boyutu için ise .74 olarak bulunmuştur. Test-tekrar test güvenirlilik katsayısı ise her iki alt boyut için .72 olarak bulunmuştur. Elde edilen bulgular, Kendini Sevme/Özyeterlik Ölçeği'nin benlik saygısını ölçmede kullanılabilecek yeterli düzeyde geçerlik ve güvenirliliğe sahip olduğunu göstermiştir.

*Anahtar Sözcükler:* Benlik saygısı, ölçek uyarlaması, faktör yapısı.

#### Introduction

Research in self-esteem has a long and productive history. The powerful and comprehensive effect of self-esteem on the cognitive, emotional and behavioural pattern is a feature which should not be overlooked in the process of understanding the said long-term history (Çörüş, 2001). Self-esteem was defined by Rosenberg (1965) as the positive and negative attitudes of an individual towards himself/herself. On the other hand, according to Coopersmith (1967), it is an evaluation of the individual about his/her value and the self-competency of the individual, the importance he/she attaches to himself/herself and one's belief that he/she is valuable, whether or not one approves of himself/herself. All of these are the expressions of one's self-esteem. Research into

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self-esteem hold a key position in psychology. Significant correlations have been found between self-esteem and depression (Dori & Overholser, 1999; Rice et al., 1998; Ulrich et al., 2008), anxiety disorders (Kimberly et al., 1999), eating disorders (Button et al., 1997; Maureen & Pritchard, 2007; Paterson et al., 2006), interpersonal relations (Tiggemann, 2005; Doğan et al., 2009), body image (Buhlmann et al., 2009; Tiggemann, 2005), achievement (Tafarodi and Vu, 1997) and life satisfaction (Çivitçi & Çivitçi, 2009; Diener & Diener, 1995).

In the literature, it is seen that self-esteem is evaluated as a uni-dimensional structure in general (Coopersmith, 1967; Fleming & Courtney, 1984; Rosenberg, 1965). In addition to this, there are studies suggesting that self-esteem has a multidimensional structure. Arıcak (1999) developed a five-factor measurement tool for the purpose of measuring self-esteem and determined that the subscales forming self-esteem are "self-value", "self-confidence", "depressive affect", "self-sufficiency" and "achievement and productivity". On the other hand, Tafarodi and Swan (1995, 2001) argued that self-esteem was two-dimensional, namely "self-liking" and "self-competence". In general, the dimension of self-liking means that the individual sets a value upon himself/herself and that he/she is pleased with himself/herself, whereas the dimension of self-competence indicates that the individual sees himself/herself as being competent, skillful and successful in achieving his/her goals. Research has been conducted in different cultures, and the outcomes support the two-dimensional structure of self-esteem (Aidman, 1997; Silvera et al., 2001; Vandromme et al., 2007).

Developed by Tafarodi and Swan (2001) for the purpose of measuring self-esteem, the "Self-Liking and Self-Competence Scale" (SLSC) is a 16-item 5-point Likert-type measurement tool. The psychometric properties of the scale were analyzed using data from 1,325 participants (889 females / 436 males) from the Department of Psychology of Toronto University. According to the results obtained, a correlation of .57 in females and a correlation of .59 in males were found between the subscales of "self-liking" and "self-competence". The average of the subscales of "self-competency" was found to be 25.61 (Sd=5.62) in females and 27.23 (Sd=5.59) in males. At the same time, the average of the subscales of "self-liking" was found to be 28.34 (Sd=6.99) in females and 30.14 (Sd=6.77) in males. The Cronbach's alpha coefficient for the "self-competency" sub-scale was determined to be .83 in females and .82 in males. On the other hand, the Cronbach's coefficient alpha for the "self-liking" sub-scale was found to be .90 in both females and males. The test-retest reliability coefficient was found to be .78 for "self-competence" and .75 for "self-liking". A confirmatory factor analysis (CFA) was performed so as to determine whether or not the two-dimensional factor structure of the scale would be confirmed. The rate of chi-square value to the degree of freedom for the model was found to be (656/103) 6.36. Furthermore, the goodness of fit indexes were CFI= .92, NNI= .91, NI= .91 and RMSEA= .06.

In the scale development and adaptation studies, there is search for information about two basic psychometric properties, namely "validity" and "reliability" (Gözüm and Aksayan, 2003). The primary objective of this study is to investigate the validity and reliability of SLSC in a sample consisting of Turkish university students. Once translated into Turkish, it is thought that the scale in respect of self-esteem, having a key position in research in the field of psychology, will bring a new perspective to studies to be carried out in this regard.

## Method

### *Participants*

The participants of the research were 604 university students who were studying at the Faculty of Education of Sakarya University and at the Faculty of Letters of Hacettepe University during the academic year 2009-2010. They were selected by means of convenience sampling. Of the said students, 76 participated in the test-retest reliability study and 42 participated in the linguistic validation study. No information about gender and age was obtained from those two

groups. Of the remaining 486 participants, 5 did not state their gender or age. Apart from these, 354 were female and 127 were male. The age range of the sample varied between 17 and 28 years. The average age was 19.85 (Sd=1.67).

#### *Instruments*

*Rosenberg Self-Esteem Scale (RSEC):* This was developed by Rosenberg in 1965. The scale is comprised of 63 questions in total in 12 sub-categories, structured from multiple-choice questions. Having been employed in the research, the RSEC Self-Esteem Subscale is a 4-point Likert-type sub-scale and covers the first 10 items of the inventory. The studies on the validity and reliability of the scale's Turkish form were conducted by Çuhadaroğlu (1986). The reliability and validity procedures of the scale, the linguistic validity of which was first ensured within the scope of this study, showed that the reliability coefficients obtained for sub-tests in test-retest reliability varied between .46 and .89 and that the criterion-related validity correlations performed by sub-tests of the Symptom Check List (SCL-90R) varied between .45 and .70. Moreover, the average self-esteem points acquired from the normal and psychiatric patient groups were significant in favour of the normal group, and the findings supported the theoretical structure validity (Çörüş, 2001).

*Self-Esteem Scale (SES):* The SES is a 5-point Likert-type scale developed by Arıçak (1999). The scale comprises of 32 items in total; 13 positive and 19 negative items. For the entire scale, the Cronbach's alpha coefficient was found to be .90. On the other hand, the test-retest reliability coefficient was determined as .70. The correlation between the SES and the Rosenberg Self-Esteem Scale was analyzed within the framework of the similar scales' validity, and a correlation of .69 was found between the said two scales. As a result of the factor analysis performed, a five-factor structure explaining 46% of the total variance was acquired. Those five factors were named as "self-value", "self-confidence", "depressive affect", "self-sufficiency", "achievement" and "productivity. The Cronbach's alpha coefficients in respect of subscales were found to be .74, .68, .75, .60 and .70, respectively.

*The Level of Self-Criticism Scale - LOSC:* The Level of Self-Criticism Scale was developed by Thompson and Zuroff (2004). It is a 5-point Likert-type self-description scale ranging from "a very bad description of me" to "a very good description of me". It comprises of two sub-scales: The Comparative Self-Criticism and The Internalized Self-Criticism. The subscale of the Comparative Self-Criticism includes 12 items, whereas the subscale of the Internalized Self-Criticism includes 10 items. The adaptation into Turkish and the analysis of the psychometric characteristics were carried out by Öngen (2006). As a result of the factor analysis undertaken, a two-factor structure having self-values of 4.36 and 2.66 and explaining 32% of the total variance was acquired. The Cronbach's alpha coefficient was found to be .67 for the Comparative Self-Criticism and .77 for the Internalized Self-Criticism. The findings obtained showed that the Level of Self-Criticism Scale had sufficient levels of validity and reliability to be used in the Turkish culture.

*The Boratav Depression Screening Scale (BORDEPTA):* The Boratav Depression Screening Scale is a 16-item yes/no question measurement tool developed by Boratav (2003) for the purpose of diagnosing and screening depression in epidemiologic studies and first-step healthcare services. In the first stage, the scale was studied in terms of validity and reliability by means of the data from 60 depression patients and 61 common anxiety disorder patients. In the second stage, the conforming breakpoints, sensitivity and specificity were studied in a sample comprising of 96 non-psychiatric patients and 7 healthy people. The Cronbach's alpha coefficient of the scale was found to be .90. Within the framework of the similar scales' validity, a correlation of .81 was found between the BORDEPTA and the Beck Depression Inventory and of .76 between the BORDEPTA and the Trait Anxiety Inventory.

*The Brief Fear of Negative Evaluation Scale - BFNE:* The Brief Fear of Negative Evaluation Scale - BFNE - is a self-report scale developed by Leary (1983) for the purpose of measuring the tolerance of individual being evaluated in a negative or hostile manner by others. The BFNE comprises of 12 items, including expressions of fear and anxiety. The items of the scale were taken

from the 30-item Fear of Negative Evaluation - FNE - developed by Watson and Friend (1969). The BFNE was adapted into Turkish by Çetin, Doğan and Sapmaz (2010). The psychometric properties of the scale were performed on the base of the data from 325 university students. The internal consistency coefficient of the scale was found to be .84. On the other hand, the reliability coefficient obtained by means of a split-test was .83. So as to determine the test-retest reliability, the scale was applied to 76 people every other two weeks. As a result of the application, the test-retest reliability coefficient was found to be .82.

#### *Procedure*

A standard scale adaptation study requires an intense process. It is possible to express the steps to be followed in the process of adaptation as (i) determining the measurement tool to be adapted (ii) obtaining the permission necessary for adaptation from the researchers who developed the measurement tool (iii) translating the measurement tool from the original language in which it was developed into the target language into which the measurement tool will be adapted, and determining the linguistic equivalency (iv) preparing the translated new form and other measurement tools to be used in the research (v) determining the sampling on the basis of which the research will be conducted, and applying the scales (vi) determining the conforming validity and reliability methods to be used for the purpose of putting forth the psychometric characteristics of the scale (vii) analyzing the data and discussing the findings. In the present research, these steps were followed, and the permissions necessary for the adaptation of the scale were obtained by getting into touch with R. W. Tafarodi via e-mail. Afterwards, the scale was translated from its original language, English, into Turkish, and linguistic equivalence studies were carried out. Applications were commenced after it had been determined that the relationship between the original form and the Turkish form was adequate. The applications were performed during course hours. Having been informed about the objective of the research and the application of the scale, the candidate students were asked to participate in the study. The applications lasted approximately 20-25 minutes. Then, the data obtained were analyzed and the psychometric characteristics of the Self-Liking/Self-Competence Scale were analyzed. First of all, an item analysis was performed within this scope. Then it was analyzed in terms of whether or not there was an item which did not represent the characteristics of the scale assessed. Afterwards, a confirmatory factor analysis (CFA) was performed so as to establish the structural validity of the scale. At the same time for the purpose of revealing the criterion-related validity, the relationships between the SLSC and the scales measuring the similar and different structures were analyzed. The reliability of the scale was investigated by means of internal consistency and test-retest reliability methods. The findings obtained were discussed and recommendations were made. The analyses of the data were performed using SPSS 11.5 and Lisrel 8.51 programs.

## Results

#### *Linguistic Validation*

In adaptation studies, a meticulous translation is important so that the current scale does not deviate from its aim, and to ensure that sufficient levels of validity and reliability values are obtained, while the psychometric characteristics of the scale are analyzed in the process of adaptation. According to Gözümlü and Aksayan (2002), in scale adaptation studies, it is possible to employ the method of "group translation" whereby two or more people who know both the source and the target language well, translate the scale together or separately, and then come to an agreement. There is also the method of "back translation" where the scale is translated separately by two or more people and the translated form is translated back into the original language by another person who has a good command of both the source and the target language. A third method is the "linguistic equivalence study" where the original form and the translated form are presented to a group comprising of people having a good command of both

the source and the target language every other several weeks. In the present research, the method of “linguistic equivalence test” was employed. The first stage of the study was the translation of the scale from English into Turkish. Accordingly, the scale was translated by a research lecturer from the Department of Psychological Counseling and Guidance and two expert translators. The translations were reviewed, and the expressions which were thought to best represent the items included in the original form were adapted. During the second stage, 42 people studying at the Department of American Culture and Literature of Hacettepe University and having a good command of English, participated in the linguistic equivalence studies. The original form and the Turkish form of the scale were applied every two weeks, and the total score and the subscales, and the correlations between the two applications for each item, were analyzed. Accordingly, a positive and statistically significant correlation ( $r = .93$ ,  $p < .001$ ) was found between the English form and the Turkish form in terms of total scores. Of the scores obtained from the English form and the Turkish form, the correlation was found to be ( $r = .94$ ,  $p < .001$ ) for the subscale of “self-liking”, and ( $r = .89$ ,  $p < .0001$ ) for the subscale of “self-competence”. In addition, the linguistic equivalence was analyzed for each item separately and, as a result of both applications, the inter-items correlation was observed. Accordingly, the values between items included in the English form and the Turkish form varied between .67 and .89. The findings obtained are presented in Table 1 and Table 2.

Tablo 1.

*The Self-Liking/Self-Competence Scale Linguistic Equivalence Findings*

Factors	Administration	n	$\bar{xxx}$	Sd	r
Self-liking	English Version	42	30.86	5.44	.94**
	Turkish Version	42	31.02	5.29	
Self-competence	English Version	42	26.05	4.77	.89**
	Turkish Version	42	26.90	4.85	
	Turkish Version	42	57.93	9.19	

\*\* $p < .001$ 

Table 2.

*Inter-Items Correlation Levels in the English Form and the Turkish Form*

Items	$\rho$
Item1	.73**
Item2	.84**
Item3	.89**
Item4	.84**
Item5	.71**
Item6	.88**
Item7	.76**
Item8	.74**
Item9	.75**
Item10	.75**
Item11	.89**
Item12	.76**
Item13	.85**
Item14	.84**
Item15	.67**
Item16	.76**

\*\* $p < .001$ *Item Analysis*

For the purpose of determining the scale items' power in terms of predicting the total score,



item total correlation coefficients were calculated by comparing the scores obtained from each item, and the scores obtained from the entire test. The acquired correlation coefficient reveals the consistency of the item in question with the entire scale. Accordingly, each item was evaluated according to the subscale within whose scope that item was included, and the correlations between item scores and test scores were obtained. As a result, it was concluded that the corrected item total correlations for the subscale of "self-liking" varied between .35 and .64. Furthermore, it was seen that the item total correlations for the subscale of "self-competence" were between .38 and .49. In the interpretation of the item total correlation, items having a value of .30 and higher are accepted to be sufficient (Büyüköztürk, 2004). So as to determine the discrimination of the scale items, upper and lower group comparisons of 27% were performed according to subscales. So, it was seen that all of the differences between the item average scores in both subscales were statistically significant. This result reveals that the items had a sufficient power of discrimination. The results obtained are presented in Table 3.

Table 3.

## Item Analysis Results

Scale Items	Corrected Item Total Correlation <sup>1</sup>	t (% 27 upper-lower groups) <sup>2</sup>	
Self-liking (Kendini Sevme)	1. Kendimi değersiz görmeye eğilimliyim.*	.60	18,475**
	3. Kendimle oldukça barışığım.	.64	18,459**
	5. Kendi değerimden eminim.	.58	16,395**
	6. Kendimle ilgili düşünmek kimi zaman hoşuma gitmez.*	.35	11,765**
	7. Kendime karşı olumsuz tutum içindeyim.*	.64	18,539**
	9. Kendimden gayet memnunum.	.64	17,804**
	11. Kendi kişisel değerimden asla şüphe duymam.	.54	16,509**
15. Kendime yeterince saygım yoktur.*	.47	12,135**	
Self-competence (Öz-yeterlik)	2. Yaptığım işlerde oldukça yeterliyim.	.48	14,868**
	4. Uğrunda çaba gösterdiğim her işi başarabilirim.	.38	12,711**
	8. Bazen benim için önemli olan şeyleri başarmakta zorlanırım.*	.42	12,298**
	10. Zorluklarla başa çıkmada bazen yetersiz kalırım.*	.43	12,302**
	12. Birçok konuda oldukça başarılıyım.	.46	15,116**
	13. Hedeflerimi gerçekleştirmede bazen başarısız olurum.*	.42	10,946**
	14. Çok yetenekliyim.	.49	15,606**
16. Keşke yaptığım işlerde daha başarılı olsam.	.38	13,861**	

<sup>1</sup>n =486, <sup>2</sup>n<sub>1</sub>, n<sub>2</sub>=131, \*\*p<.001

\*1,6,7,8,10,13,15,16. items are reversely coded.

*Validity Studies*

*Confirmatory Factor Analysis (CFA)*: In the present research, a CFA was performed for the purpose of analyzing the structural validity. Basically, CFA manifests to what extent a structure which was determined previously on the basis of a theoretical foundation is verified with the data in hand (Sümer, 2000). Accordingly, it was analyzed whether or not the factor structure of the original form of the SLSC was going to be verified using a sample comprising of Turkish university students. To this end, a CFA was conducted for single-factor and two-factor models. The fitness of the two-factor model was first analyzed with the help of the criterion of having a rate of less than 5 to the chi square value's degree of freedom. Accordingly, a value of less than 5 implies that the model is fit (Kline, 2005; Meyers et al., 2006). In the research, the rate of the chi square value to the degree of freedom was found to be (258.93/98) 2.64 for the two-factor model

and (336.40/99) 3.40 for the single-factor model. Afterwards, the fit indices showing whether or not the models were fit were analyzed using the CFA. Numerous different fit indices were employed so as to determine the fitness sufficiency of the model tested using the CFA. It is recommended that several fit index values ought to be used for the purpose of revealing the fitness of the model, due to the fact that fit indexes have strengths and weaknesses compared to each other in the evaluation of the fitness between the theoretical model and actual data (Büyüköztürk et al., 2004). Among the said indexes, the most frequently used ones are the Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Comparative Fit Index (CFI), Normed Fit Index (NFI), Root Mean Square Residuals (RMR or RMS) and the Root Mean Square Error of Approximation (RMSEA). For the indexes of GFI, CFI, NFI, RFI, IFI and AGFI, the acceptable fit value is accepted as 0.90, and the perfect fit value is accepted as 0.95 (Bentler & Bonett, 1980; Bentler, 1980; Marsh et al., 2006). On the other hand, for the index of RMSEA, 0.08 is accepted as the acceptable fit value and 0.05 is accepted as the perfect fit value (Brown & Cudeck, 1993). The CFA results and factor loads in respect of the SLSC are presented Table 4.

Table 4.

*Goodness of Fit Index of the CFA*

	$\chi^2$	df	AGFI	GFI	NFI	RFI	CFI	RMR	IFI	RMSEA
Unidimensional Model	336.40*	99	0.85	0.89	0.84	0.81	0.88	0.062	0.89	0.083
Two factor Model	258.93*	98	0.91	0.94	0.95	0.94	0.97	0.049	0.97	0.049

$p < .001$

If the goodness of fit indices in respect of the two-factor CFA model is analyzed, it is seen that the indices of AGFI, GFI, NFI, RFI, CFI and IFI are more than .90, and the indices of RMR and RMSEA are less than .08. However, it is seen that the goodness of fit indices for the single-factor model is not sufficient. Furthermore, it is evident that the factor loads in respect of the two-factor model are between .33 and .74 in a positive direction. In addition, the correlation between the factors was found to be .81. On the other hand, it was seen that the factor loads in respect of the single-factor model varied between .28 and .75. As a result, it was seen that the two-factor model had a better fit and met the criteria in a better way, compared to the single-factor model.

*Criterion-Related Validity*

For the purpose of analyzing the criterion-related validity of the SLSC, the Self-Esteem Scale – SES (Arıca, 1999), the Rosenberg Self-Esteem Scale – RSES (Rosenberg, 1965), the Level of Self-Criticism Scale – LOSC (Öngen, 2006), the Boratav Depression Screening Scale - BORDEPTA (Boratav, 2003) and the Brief Fear of Negative Evaluation Scale – BFNE (Çetin et al., 2010) were used. Theoretically, a positive correlation was expected between the SLSC and the SES and the RSES, whereas a negative significant correlation was expected between the LOSC, the BORDEPTA and the BFNE. A correlation of ( $r=.78$ ,  $p<.001$ ,  $n=121$ ) between the “self-liking” and the SES, and a correlation of ( $r=.66$ ,  $p<.001$ ,  $n=121$ ) between the “self-competence” and the SES were found. On the other hand, correlations varying between the values of .32 and .78 were found between the SLSC and its subscales and the SES and its subscales. A correlation of ( $r=.75$ ,  $p<.001$ ,  $n=114$ ) between the subscale of “self-liking” and the RSES, and a correlation of ( $r=.69$ ,  $p<.001$ ,  $n=114$ ) between the subscale of “self-competence” and the RSES were found. A correlation of ( $r= -.44$ ,  $p<.001$ ,  $n=114$ ) between the “self-liking” and the BORDEPTA, and a correlation of ( $r= -.40$ ,  $p<.001$ ,  $n=114$ ) between the “self-competence” and the BORDEPTA were found. A correlation of ( $r= -.49$ ,  $p<.001$ ,  $n=121$ ) between the “self-liking” and the BFNE, and a correlation of ( $r= -.50$ ,  $p<.001$ ,  $n=121$ ) between the “self-competence” and the BFNE were found. Finally, a correlation of ( $r= -.56$ ,  $p<.001$ ,  $n=121$ ) between the subscale of “self-liking” and the LOSC, a correlation of ( $r= -.60$ ,  $p<.001$ ,  $n=121$ ) between the subscale of “self-liking” and the “comparative self-criticism”, and a correlation of ( $r= -.28$ ,  $p<.001$ ,  $n=121$ ) between the subscale of “self-liking” and the “internalized self-criticism” were found. A correlation of ( $r= -.27$ ,  $p<.001$ ,  $n=121$ ) between the subscale of “self-competence” and

the LOSC, and a correlation of ( $r = -.34, p < .001$ ) between the subscale of “self-competence” and the “comparative self-criticism” were found. No correlation was found between the subscale of “self-competence” and that of “internalized self-criticism”. The findings obtained are presented in Table 5.

Table 5.

*The Correlation Coefficients in Respect to the Criterion-Related Validity*

	SES	SV	SC	DA	SC	AP	RSES	BORDEPTA	BFNE	LOSC	CSC	ISC
Self-liking	.78	.77	.55	.46	.64	.59	.75	-.44	-.49	-.56*	-.60*	-.28*
Self-competence	.66	.64	.46	.32	.56	.61	.69	-.40	-.50	-.27*	-.34*	-.09

\*\* $p < .001$

**SES:** The Self-Esteem Scale, **SV:** Self-Value, **SC:** Self-Confidence **DA:** Depressive Affect, **SC:** Self-Competence, **AP:** Achievement Productivity, **RSES:** The Rosenberg Self-Esteem Scale, **BORDEPTA:** The Boratav Depression Screening Scale, **BFNE:** The Brief Fear of Negative Evaluation Scale, **LOSC:** The Level of Self-Criticism Scale, **CSC:** Comparative Self-Criticism, **ISC:** Internalized Self-Criticism

### *Reliability Studies*

Reliability refers to the ability of a measurement tool to give sensitive, consistent and stable measurement results. In other words, it is the stability between the independent measurements of the same variable. A certain variable is assessed and constantly takes the same symbols. The same results are obtained by following the same processes, and using the same criteria. The measurement is free from random errors (Gözüm & Aksayan, 2003). The reliability of the SLSC was analyzed by means of the calculation of the Cronbach’s alpha coefficient, and the test-retest methods. The Cronbach’s alpha coefficient was calculated for the “self-liking” and was found to be  $r = .83$ , whereas the Cronbach’s alpha coefficient was calculated for the “self-competence” and was found to be  $r = .74$ . The SLSC was applied to 76 students at two week interval, and the correlation between the two applications was observed. Accordingly, the reliability coefficient calculated by means of the test-retest method was found to be .72 for “self-liking”, and .72 for “self-competence”. All of the values obtained show that the scale has an adequate level of validity.

Table 6.

*The Test-Retest Reliability Coefficients of the Self-Liking / Self-Competence Scale*

Factors		n	$\bar{xxx}$	Sd	r
Self-liking	Firs administration	76	30.96	8.38	.72**
	Second administration	76	31.53	7.96	
Self-competence	Firs administration	76	26.00	4.83	.72**
	Second administration	76	25.89	4.60	
	Second administration	76	57.42	4.25	

$p < .001, N = 76$

### *Analysis of the SLSC According to Gender Differences*

In order to determine if there was a difference by gender in terms of the SLSC, the scores obtained from its subscales were analyzed by employing the t- test (independent samples t- test) for independent samplings. As a result of the analysis, it was concluded that in the subscale of “self-competence”, the score averages of the males ( $x = 26.60$ ) were .05 higher at a statistically significant level than that of the females ( $x = 25.17$ ) ( $t_{479} = 3.076, p = .002$ ). However, no statistically significant difference by gender was found in terms of the scores obtained from the “self-liking” subscale. The results obtained are presented in Table 7.



Table 7.

*Gender Differences in the SLSC*

Factors	Gender	N	$\bar{X}$	Sd	<i>t</i>	df	<i>p</i>
Self-liking	Women	354	30.05	5.74	.366	479	.715
	Men	127	30.27	5.42			
Self-competence	Women	354	25.17	4.43	3.076	479	.002*
	Men	127	26.60	4.52			
	Men	127	56.87	8.97			

\* $p < .05$ *Answering and Scoring the Scale*

The SLSC is a 5-point Likert-type scale. It is scored as "Strongly Disagree" (1), "Disagree" (2), "Slightly Agree" (3), "Agree" (4) and "Strongly Agree" (5). The items numbered 1, 6, 7, 8, 10, 13, 15 and 16 are reverse-coded. It is possible to acquire two different types of scores from the scale; the "self-liking" subscale score, and the "self-competence" subscale score. High scores signify high self-esteem.

## Discussion and Conclusion

In the present study, the SLSC was adapted into Turkish and its psychometric properties were analyzed using a sample comprised of Turkish university students. First of all the scale was translated from English into Turkish. The Turkish form was acquired as a result of the translation was applied to 42 people having a good command of both the source and the target language every other several weeks and the linguistic equivalence was analyzed. As a result of the application, it was seen that there was a high level of correlation between the Turkish and the English form. After it had been concluded that the results in terms of the linguistic equivalence were adequate, an item analysis was conducted, and each of the scale item's power for predicting the total score was calculated. In terms of validity studies of the SLSC, the methods of structural validity and criterion-related validity were employed. In terms of reliability studies, the methods of internal consistency and test-retest reliability were employed.

In scale adaptation studies, the studies of translation and linguistic equivalence are important. If the linguistic equivalence is inadequate, the validity and reliability studies that are to be performed in the following stages are affected negatively. In the present research, the SLSC was translated from its original language, English, into Turkish, and the expressions which were thought to best represent the items included in the original form were adapted. At the second stage, the Turkish form and the English form were presented to 42 people studying at the Department of American Culture and Literature of Hacettepe University, and the correlation between the two forms was analyzed. As a result of the linguistic equivalence, a high level of correlation ( $r = .93$ ,  $p < .001$ ) was obtained between the English and the Turkish forms.

Following the linguistic equivalence study, an item analysis was performed, and the scale items' power of representing the scale, and predicting the total score, was calculated. As a result of the item analysis, it was observed that all items had a value of .30 or more. Based on this result, it was concluded that all of the items represented the scale at a sufficient level, and that there was no need to omit any item from the scale.

In the present study, the validity of the SLSC was analyzed by means of the methods of confirmatory factor analysis (DFA) and criterion-related validity. Accordingly, the CFA was

applied to the single- and two-factor structure of the scale. As a result of the CFA, it was seen that the two-factor structure of the scale was more appropriate than the single-factor structure. The original form of the scale has a two-factor structure. The said result verified that the factor structure of the SLSC was two-dimensional, just like in its original form. Within the scope of the criterion-related validity, for the purpose of revealing the similar scales' validity of the SLSC, the correlation between the SLSC and the SEC (Arıçak, 1999) and the RSES (1965) was calculated. In terms of the correlation between the SLSC and the subscales of the SEC, positive statistically significant correlations varying from .32 to .78 were found. The results in question show that the SLSC has a sufficient level of similar scales validity. So as to manifest the distinctive validity of the SLSC, the BORDEPTA (Boratav, 2003), the BFNE (Çetin et al., 2010) and the LOSC (Öngen, 2006) were applied together with the SLSC. Theoretically, a negative significant correlation was expected between self-esteem and depression, fear of negative evaluation and self-criticism. The results obtained verify the expectation. Correlations varying from -.40 to -.47 between the SLSC and its subscales and the BORDEPTA were obtained. Correlation with values varying from -.32 to -.50 between the SLSC and its subscales and the BFNE were found. Finally, correlations varying from -.27 to -.56 between the SLSC and its subscales and the LOSC were found. All of these CFA and criterion-related validity results show that the scale has a sufficient level of validity.

For the purpose of revealing the reliability of the SLSC, the methods of internal consistency and test-retest were employed. Accordingly, the Cronbach's alpha coefficient for the subscale of "self-liking" was found to be  $r=.83$ , whereas the internal consistency coefficient calculated for the subscale of "self-competence" was found to be  $r=.74$ . The test-retest reliability coefficient was found to be .72 for the subscale of "self-liking" and .72 for the subscale of "self-competence". These results in respect of reliability, show that the scale has a sufficient level of validity.

As a result, it is possible to say that the SLSC is a valid and reliable measurement tool to be used for the purpose of measuring the self-esteem levels of Turkish university students. The scale can be employed in research into self-esteem, and in the process of psychological counseling. The present research was executed on the basis of data from university students. It would be possible to analyze the psychometric characteristics and factor structure of the scale using different sampling groups in further research.

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