CONSTRUCTION OF A LIKERT-TYPE TRANSFORMATIONAL LEADERSHIP SCALE[1]

LİKERT-TİPİ DÖNÜŞTÜRÜCÜ LİDERLİK ÖLÇEĞİ GELİŞTİRİLMESİ

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Abstract

The aim of the current study1 is to develop a free-access valid Likert-type measure to assess transformational leadership. Following a preliminary study involving literature reviews and interviews with 20 employees and 10 managers, 37 items were developed to tap behaviors describing both transformational and transactional styles. The newly developed Transformational Leadership Scale (TLS) was validated in Turkey with a subsequent sample of 165 employees nested under 38 superiors. Construct validation indicated a two-factor structure and converging associations with the Multifactor Leadership Questionnaire (MLQ), especially for transformational leadership. Concurrent criterion-related validation indicated that transformational leadership predicted followers' job satisfaction, affective organizational commitment, and the satisfaction of work-related basic psychological needs of relatedness and autonomy, whereas transactional leadership did not. Within-group agreement for perceived transformational leadership was higher when assessed with the TLS as compared with the MLQ; which indicates that the newly developed scale yields more reliable follower perceptions across employees working with the same manager. The basic contribution of the study is the introduction of the free-to use TLS developed in Turkey, which includes generic and culture-specific elements of valued leadership behaviors. We would like to encourage researchers from Turkey and from more diverse cultural work contexts to further study the validity and applicability of the TLS within a broader nomological network.

Öz

Araştırmanın amacı, dönüştürücü liderlik özelliklerini Likert-tipi ölçek formatında ölçen, araştırmacılara ücretsiz erişim olanağı tanıyan, geçerli ve güvenilir bir ölçek geliştirmektir. Alanyazın taramalarına ek olarak, 20 çalışan ve 10 yönetici ile yapılan mülakatları içeren bir ön çalışmada dönüştürücü ve etkileşimsel liderlik davranışlarını ifade eden 37 ölçek maddesi geliştirilmiştir. Yeni geliştirilen Dönüştürücü Liderlik Ölçeği, ana çalışmaya katılan 165 çalışan ve bu çalışanlara yöneticilik yapan 38 kişinin oluşturduğu örneklemde incelenmiş ve geçerliği gösterilmiştir. Yapı geçerliği çalışması, ölçeğin dönüştürücü ve etkileşimsel liderlik boyutlarını kapsayan iki-faktörlü bir yapıya sahip olduğunu ve özellikle dönüştürücü liderlik boyutunun alanyazında halihazırda kullanılmakta olan Çok-boyutlu Liderlik Ölçeği (Multifactor Leadership Questionnaire) ile birleşen geçerliği olduğunu göstermiştir. Eş zamanlı ölçüt-bağıntılı geçerlik çalışması; dönüştürücü liderlik boyut puanlarının çalışanların iş doyumunu, duygusal örgütsel bağlılıklarını ve işle ilgili temel psikolojik ihtiyaçlar olan ilişkililik ve özerklik ihtiyaçlarını yordadığını; etkileşimsel liderlik boyut puanlarının ise bu değişkenlerin hiçbirini yordamadığını göstermiştir. Tek bir yönetici altında çalışan kişiler arasındaki grup-içi uzlaşma endeksi hem bu çalışmada geliştirilmiş olan ölçek puanları temelinde hem de Çok-boyutlu Liderlik Ölçeği puanları temelinde incelenmiştir. Bu çalışmada geliştirilen ölçek, alanyazındaki ölçeğe kıyasla, çalışanların yöneticilerinde algıladıkları dönüştürücü liderlik özellikleri bakımından birbirleriyle daha çok uzlaşma içinde olduklarını göstermiştir. Yani yeni geliştirilen ölçeğin beraber çalışılan bir yöneticinin davranışlarını algılamak konusunda alanyazında halihazırda kullanılan ölçekten daha güvenilir sonuç verdiği görülmüştür. Bu çalışmanın literature temel katkısı, Türkiye'deki iş ortamlarında geliştirilen, hem başka kültürlere genellenebilir olan hem de değerli bulunan kültüre-özgü liderlik davranışlarını içeren ve araştırmacılara ücretsiz erişim sağlayan Dönüştürücü Liderlik Ölçeği'nin kendisidir. Amacımız, Türkiye ve çeşitli kültürel iş ortamlarında Dönüştürücü Liderlik Ölçeği'nin daha geniş kapsamlı geçerliğini ve uygulanabilirliğini çalışmak üzere diğer araştırmacıları teşvik etmektir.

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[1] The study presented in this manuscript is part of the master's thesis of the first author. Parts of this paper were presented at the 15th European Congress of Psychology, 2017, Amsterdam, the Netherlands.

Introduction

One contemporary approach to studying leadership, the ability to motivate a group of people towards common goals, is transformational and transactional leadership; in which the two styles complement each other in increasing employee productivity and morale (Bass 19). Leaders with either style invest in the achievement of objectives. However; they differ on the 'motivational processes' and on the 'type of goals' set (Hater and Bass 695). Transformational leaders try to motivate their followers intrinsically by providing challenges, empowerment and autonomy, advice and help, and sharing information. They are like benevolent fathers. Transactional leaders try to motivate with the use of external rewards and threats, continuous employee monitoring and control mechanisms. Sometimes transformational leaders may exhibit transactional behaviors. According to scholars (e.g., Fry 693) and the two-factory theory of leadership (Fleishman 153), organizations could benefit both from transactional and transformational leader behaviors, though transformational leadership gains importance as it offers a unique relationship between the leader and follower, increasing job attitudes and well-being as well as motivation (Yammarino, Dansereau and Kennedy 149).

In the assessment of transformational leadership around the globe and in Turkey, researchers have mostly used the Multifactor Leadership Questionnaire (MLQ; Bass and Avolio 1) (e.g. Aydoğdu and Aşıkgil 65; Gümüşlüoğlu and İlsev 461; Gümüşlüoğlu, Karakitapoğlu-Aygün and Hirst 2269; Karakitapoğlu-Aygün and Gümüşlüoğlu 125). Also reported are using adjectives descriptive of transformational behaviors (Fikret-Paşa, Kabasakal and Bodur 559) or the Leadership Practices Inventory (LPI; Posner and Kouzes 483) measuring preferences for transformational and transactional leadership (Ergin and Kozan 53).

Aim of the current study was to develop a Likert-type measure for transformational leadership styles so that a free tool could be widely utilized in research; one which is reliable and valid, and includes culture-specific representations of leadership behaviors that would also go under the general transformational leadership style. With this purpose, the literature is reviewed in terms of definitions and behavioral examples of transformational and transactional leadership styles, and the organizational and leadership values prized and observed in Turkey.

Transformational and Transactional Leadership and Associated Criteria

'Transformational leadership' is conceptualized with four dimensions; charisma (renamed as idealized influence), inspirational motivation, intellectual stimulation, and individualized consideration (Bass 19). 'Charisma' is the leaders' ability to display power and confidence, gain respect, and have a strong sense of purpose. It is the perception of followers as a result of transformational behaviors (Bass 19). Thus, the newly developed measure would not tap charisma perceptions, but will include observable leader behaviors. 'Inspirational motivation' is being inspiring and appealing to followers through an expressive and convincing communication style, showing enthusiasm, optimism, and trust. 'Intellectual stimulation' is described as stimulating follower effort to be innovative and creative by questioning assumptions, reframing problems and approaching old situations in new ways. 'Individualized consideration' refers to the degree to which leaders pay attention to their followers' individual needs, assign tasks to fit and improve employee abilities and motivation, support followers to take initiative, give overall responsibility for some identifiable piece of work, and basically act as a mentor (Bass 19; Bass and Avolio 1; Simic 49; Suryani et al. 290).

Even though the two styles can be complementary, cumulative research indicated that transformational leadership is more effective than transactional leadership in many aspects. The style has been associated with leader trust and fairness perceptions (Goodwin et al. 409; Tremblay 510), commitment (Goodwin et al. 409; Walumbwa et al. 515), group cohesiveness (Wang and Huang 379), followers' extra effort and effectiveness (Rowold 403), satisfaction with the leader and the job (Rowold 403; Walumbwa et al. 515), job and work withdrawal (Walumbwa et al. 515), and subordinate performance (Goodwin et al. 409). In accordance with the Self Determination Theory (SDT, Deci and Ryan 319), transformational leader behaviors are associated with satisfaction of followers' needs for autonomy, competence and relatedness (Kovjanic et al. 1031).

'Transactional leadership' includes mechanisms for meeting the standards, active avoidance of making mistakes and performance-contingent reward/punishment. The style is associated with ratings of platoon potency, platoon cohesion (Bass et al. 207), employee performance (Jung and Avolio 949; Obiwuru et al. 100), and inversely associated with volunteer participation and union (Catano, Pond and Kellowa 256). Taken together, transactional and transformational leadership styles both are related to job performance, while

transformational leadership is also related to job attitudes and employee motivation. When thinking of the leadership styles that predict valued outcomes, we also need to consider the specific behavioral manifestations of such styles that emerge in specific cultural contexts.

Leadership Styles in Turkey

While transformational leadership is a universal concept, expressions of it may differ across cultures. In Turkey, Fikret-Paşa and colleagues (Fikret-Paşa, Kabasakal and Bodur 559) investigated the observed and ideal leadership styles in Turkish organizations. According to their results, the most frequently observed style was the autocratic-hierarchical style followed by the paternalistic-considerate style. Ideal leader attributes were reported to be relationship orientation, task orientation, participative leadership and transformational leadership. Relationship orientation is reflected in a paternalistic-considerate style. Collectivism, the most prevalent organizational value reported in the study, was associated with leaders' paternalistic-considerate style. Considering that Turkey still ranks higher on collectivism than the US (Hofstede), including paternalistic-considerate behaviors such as guiding and protecting followers, caring for followers, and creating a family-like organizational/work unit atmosphere in a measure of transformational leadership would more accurately represent the leadership practices in the local culture. The review by Gelfand and colleagues (Gelfand, Erez and Aycan 479) points to findings indicating that paternalistic leadership has a positive impact on employee attitudes in collectivistic and high power-distance cultures such as Turkey, further supporting the inclusion of paternalistic-considerate behaviors in a measure of transformational leadership.

In the present study, scale items were developed based on such literature reviews and interviews with leaders and employees in subordinate positions (see Preliminary Study). Validation of the newly developed Transformational Leadership Scale (TLS), which is in Turkish, was studied based on its construct validity with the MLQ and concurrent criterion-related associations. Based on the associations reported in the literature, the following hypotheses were formed:

Hypothesis 1: TLS will have moderate-to-high associations with the MLQ 5X-Short Form based on employee ratings.

Hypothesis 2: The more employees perceive their supervisors to possess a transformational leadership style, the more they will report:

a) positive attitudes of job satisfaction and affective organizational commitment,

b) performance in terms of self-reported extra effort and effectiveness,

c) fulfillment of the basic psychological needs of autonomy, relatedness and competence, with moderate-to-high effect sizes.

Preliminary Study Method

Leaders and their subordinates at a large-size private company in the electronics industry in Ankara were interviewed in order to gather specific behavioral descriptions of leaders (i.e., supervisors, managers, top-level executives) that are reflective of transformational and transactional leader behaviors.

Participants and Procedure

Thirty people took part in individually-conducted interviews; 20 subordinates (11 women), and 10 managers (3 women) covering Human Resources specialists, engineers, electronics technicians and their managers. Ten interview questions were posed that relate to how a leader should behave to make followers feel autonomous, self-sufficient, and cared; how a leader increases follower organizational commitment and trust; how to be a role model; and how to behave in the case followers perform poorly.

Content analysis indicated that the frequently appearing participant responses were mostly in accordance with the literature; so these behavioral examples were used to generate items (e.g. "My manager encourages me to talk about my new ideas"). Information from interviews, leadership behaviors observed in the Turkish culture, and definitions from the literature were combined in order to generate items. Paternalistic specifications of the leader were highlighted during the interviews. Specifically, 12 participants mentioned that a leader should be aware of employees' private problems and eight participants mentioned the necessity for leaders to attend the special occasions of their subordinates. Also, values attributed to paternalistic leaders were consistent with the specifications of a transformational leader. Specifically formed items are related to managers helping their subordinates with their off-the job private issues, being able to have a conversation about such matters, and attending the special occasions of employees.

We also made use of the literature on Self Determination Theory (SDT) as basic psychological needs are satisfied by transformational leadership (Kovjanic et al. 1031). Interviews conducted served in identifying the specific behaviors that transformational leaders make use of in enhancing autonomy, relatedness, and competence perceptions of followers. Some example items are related to a manager encouraging subordinates to take initiative, forming a family-like atmosphere, and planning training activities for subordinate development.

Case illustrations in organizational psychology textbooks were scanned to identify any leader behaviors that were not covered by the information gathered up to this point. Most examples corresponded to the identified behaviors. Some specific examples that were not reflected in accumulated behavioral examples were identified (George and Jones 209) and included in the scale (e.g., "My manager would allow me to work on new projects that I have in mind during specified work hours.") Transactional leadership behaviors were also included in the initial scale to discriminate them from the transformational behaviors while developing the TLS.

We consulted 12 academicians and graduate students specialized in Industrial and Organizational Psychology. A document which included definitions of the transformational/transactional sub-dimensions and a list of items in scrambled order was distributed to participants. They were asked to indicate which sub-dimension each item belonged to. There was 100% agreement for 31 items. Altogether agreement rates for items ranged from 50% to 100%. One item was removed while four items were reworded. Thirty-seven items were distributed to participants.

Main Study Method

Participants and Procedure

Questionnaires were distributed to 257 subordinates working in private sector organizations in Ankara, Turkey. Approval of the Institutional Ethics Board of the university, permissions of companies' top managements, and participant informed consents were obtained. Questionnaires were distributed manually at all study locations.

Data that were in usable form came from 205 participants. Return rate was 61%. In order to aggregate data on leadership perceptions of employees at the supervised-group level, we matched employees and supervisors by anonymously

coding the questionnaire envelopes. Average number of followers per leader/manager was 4.13.

Majority of participants (94.63%) were from a private company in the electronics industry. Remaining participants were recruited from other privately-owned companies. Jobs varied as human resources specialist, technician, engineers (electronics, mechanical, industrial), foreign trade specialist, purchasing specialist, production planning specialist, and sales engineer/specialist. Of the participants 56 (33.53%) were women. Participant age ranged from 19 to 62 years (M = 37.81, SD = 8.78). Tenure with the surveyed managers ranged from six months to 30 years (M = 5.88 years, SD = 6.15 years). Sixty-five participants (31.7%) reported to be a manager at the same time.

Measures

Transformational Leadership Scale (TLS). Thirty-seven newly developed items rated on a 5-point Likert-type scale ranging from "1 = strongly disagree" to "5 = strongly agree" were distributed to participants.

The Multifactor Leadership Questionnaire. The rater form of MLQ-5X-Short Form (Bass and Avolio 1) with 45 items rated on a 5-point scale ranging from "0 = not at all" to "4 = frequently, if not always" was used. Bass and Avolio report information on its reliability and validity in their manual. The Turkish translation was purchased. As the firm does not provide detailed information related to the translations, seven of the items were re-worded for better reflection of the original meaning. Also included are items on extra effort and effectiveness for participants to rate themselves.

The Minnesota Satisfaction Questionnaire (MSQ). The 20-item short-version rated on a 5-point Likert-type scale ranging from "1 = very dissatisfied with this aspect of my job" to "5 = very satisfied with this aspect of my job" was used that yields scored on internal and external satisfaction composites. The MSQ (Weiss et al. 1) was translated into Turkish by Baycan (Baycan 1). Reliability and validity evidence is reported in the manual of Weiss and colleagues.

Affective Organizational Commitment Scale*.* The 8-item measure, rated on a 5-point Likert-type scale ranging from "1 = strongly disagree" to "5 = strongly agree" was used which is part of the Organizational Commitment Scale (Allen and Meyer 1) adapted to Turkish by Wasti (Wasti 201).

Work-related Basic Need Satisfaction Scale (W-BNS). The 17-item measure, rated on a 5-point scale ranging from "1 = strongly disagree" to "5 = strongly agree" was developed by Van den Broeck and colleagues (Van den Broeck et al. 981) in order to assess the satisfaction of basic psychological work-related needs of competence, relatedness, and autonomy. Reliability and criterion-related validity evidence was provided by Van den Broeck and colleagues (Van den Broeck et al. 981). Items were translated into Turkish by the researchers. Back-translation was undertaken by a bilingual speaker. Finally a native English speaker checked the conceptual equivalence between the original and the back-translated items. Items which were not found to have conceptual equivalence were re-worded by the bilingual.

Results

After the removal of outliers, analyses were conducted with the remaining 203 participants. Because the data set includes 38 independently supervised groups, missing data were replaced by the respective group mean.

Factor Analyses, ICC Calculations, and Descriptives

For the newly developed TLS; parallel analysis using the syntax by O'Connor (O'Connor 396) and exploratory factor analysis were conducted in order to decide on the number of factors. Parallel analysis indicated that; in only two roots did real data-generated eigenvalues exceed the random data-generated eigenvalues, indicating that at most two factors could be reliably extracted from the data set. Two factors were extracted with Principal Axis Factoring with direct oblimin. Items of transformational and transactional leadership were successfully separated from each other. Items, in English, their factor loadings and item communalities are presented in Table 1. Items in Turkish are presented in the Appendix.

The transformational leadership factor explained 39.83%, and the transactional leadership factor explained 5.76% of the variance before rotation. Three items did not load on any of the factors and they were removed from analyses (see Table 1 with item numbers 35, 36, and 37). Three items that were designed as transactional leader behaviors loaded on transformational leadership. One of these was retained in the transformational factor as we thought the content also represents characteristic transformational behaviors in the form of setting goals and recognizing achievement (Item 18: "My leader sets us performance goals and rewards us as much as we succeed"). We removed the other two items that did not

reflect transformational leadership content from analyses (see items 27 and 28). As a result; the TLS has 26 items for transformational leadership. The remaining six items tapped transactional leadership. Two composite variables were created as TF and TS for transformational and transactional leadership, respectively.

ICC values (see Equation 1) were examined to see whether there was within-group homogeneity in perceiving the leader's style and hence whether the leadership perceptions of subordinates working with the same supervisor could be aggregated. Aggregated scores were also used in construct validation across the TLS and MLQ. Because the number of subordinates in the supervised groups (k) varied, the average number of subordinates across groups (4.08) was calculated and rounded down to 4.00.

Equation 1.

$$ICC = [BMS–WMS] / [BMS+(k-1)*WMS]$$

In the context of the present study, a significant ICC means the degree of similarity (WMS) of in-group members' perceptions of their supervisors is high and the between-group differences (BMS) are also high. The resulting estimate is an effect size of how much of the variance in leadership perceptions is accounted for by supervised-group membership. According to the average ICC values reported in the literature, values should be at or higher than .12 in order to proceed with aggregating group-level data (James 219). ICC for TF was very good (.58) and for TS it was above the rule of thumb (.22). Similarly; MLQ transformational leadership ICC was .28 and MLQ transactional leadership ICC reached .12 after the removal of one item (i.e. "My leader expresses satisfaction when I meet the expectations") with the lowest corrected item-total correlation value of -.03.

Cronbach's alpha values and descriptive statistics of study variables are presented in Table 2. Internal consistency reliabilities were satisfactory, except for the MLQ scales with a few items. The variable correlation matrix is presented in Table 3. Among the demographic variables, "tenure with the current manager" was correlated from .18 to .28 with all focal dependent variables in Hypothesis 2 and thus was controlled in further analyses. Age or gender did not correlate with any variables.

Table 1. TLS Item Factor Loadings and Communalities

#	Item My manager…	TF	TS	h^2
1	…tries to enhance my internal motivation when s/he wants to motivate me for a task.	.84		.69
2	…knows about our competencies, work-related personal concerns and needs and how to motivate each of us.	.84		.69
3	…makes me feel that what I do is valuable and useful.	.83		.67
4	…encourages us to generate ideas and gets our suggestions while planning and conducting work.	.82		.70
5	…makes the workplace feel like a family environment.	.81		.67
6	…informs me about the short or long term potential contributions of my work to the company.	.81		.64
7	…not only appreciates my ideas, but also encourages me to put them into practice.	.80		.63
8	…is a role model with the way s/he conducts work, his/her personality and communication skills.	.79		.62
9	…encourages me to freely express my ideas.	.79		.71
10	…encourages me to question the status quo, to produce new solutions and supports my creativity.	.78		.60
11	…encourages us to follow the innovations in the field.	.78		.59
12	…thrills us with the things we can do and succeed at by reminding us of our specifications and abilities.	.76		.56
13	…tries to convey all the information to us about the work processes.	.75		.56
14	…plans trainings for the areas I am in need of improving.	.73		.53
15	…makes me feel like there are things s/he could also learn from me.	.72		.53
16	…makes me feel that s/he cares about me, not only as an employee, but also as a person.	.71		.62
17	…considers our personal interests and abilities, when s/he allocates tasks in the team.	.71		.49
18	…sets us performance goals and rewards us as much as we succeed.*	.68	.33	.50
19	…lets me use part of my work hours for new projects that I have in mind.	.68		.45

Table 1. Continued

#	Item My manager…	TF	TS	h^2
20	…would help me with my personal problems.	.66		.53
21	…supports our attendance to personal and professional development seminars.	.64		.41
22	…would talk about non-work related matters with me, if I wish to.	.63	-.33	.57
23	…acts respectfully to me.	.57	-.36	.53
24	…attends non-work social events (wedding, birthday etc.) upon my invitation.	.53		.36
25	…supports me to take initiative.	.53		.37
26	…would give us important responsibilities, when necessary.	.47		.29
27	…makes me feel that s/he is always alert for anything that might prevent the works from going astray.*	.42	.31	.23
28	…tries to change my ideas and impose his/her own ideas, when we disagree.*	.37		.22
29	…frequently monitors and controls my acts in order to identify any possible mistakes and interfere when necessary.		.56	.30
30	…sometimes uses threats in order for me to work.	-.39	.50	.47
31	…imposes sanctions in various ways, when I cannot perform the work that was requested by me.		.47	.28
32	…keeps giving instructions to me in order to prevent me from doing mistakes.		.39	.15
33	…only rewards me contingent on completing tasks exactly the way s/he wants.		.39	.18
34	…makes me feel our relationship is like a trade; I can only take as much as I give.	-.44	.37	.38
35	…thinks it is not important to follow new paths as long as the aim is achieved faultless.			.09
36	…uses only external rewards (such as premiums or additional days of rest) to make me work.			.09
37	…does not care about the path we follow as long as we do not do mistakes.			.01

Notes. F1: Transformational leadership, F2: Transactional leadership, h^2: Communality estimates.
*Items designed as indicators of the transactional leadership factor, but loaded more highly on the transformational leadership factor.

Table 2. Descriptive Statistics of Study Variables

Variable	Mean	SD	Min.	Max.	# of items	α
TLS TF	3.60	.72	1.19	4.96	26	.96
TLS TS	2.45	.61	1.33	4.17	6	.66
MLQ TF	2.49	.74	.15	3.95	20	.94
MLQ TS	1.70	.52	.00	2.89	11	.59
Intrinsic Satisfaction	3.78	.55	1.67	5.00	12	.88
Extrinsic Satisfaction	3.31	.75	1.50	5.00	6	.81
General Satisfaction	3.74	.53	2.25	4.83	20	.90
Affective Organizational Commitment	3.69	.83	1.13	5.00	8	.92
Relatedness	3.89	.68	1.67	5.00	6	.75
Competence	4.30	.46	3.00	5.00	5	.77
Autonomy	3.44	.71	1.50	4.83	6	.77
Extra Effort	2.25	1.07	.00	4.00	3	.91
Effectiveness	2.72	.90	.00	4.00	4	.86

Notes: Scores on the MLQ and extra effort and effectiveness are on a scale from 0 to 4, remaining scales are from 1 to 5. TLS: Transformational Leadership Scale; MLQ: Multifactor Leadership Questionnaire; TF: Transformational; TS: Transactional.

Table 3. Correlations between Study Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1.DWWM	1											
2.Tenure	.62	1										
3.Related.	.18	.11	1									
4.Compet.	.09	.11	.22	1								
5.Auton.	.28	.13	.59	.22	1							
6.Int. Sat.	.19	.21	.56	.36	.67	1						
7.Ext.Sat.	.19	.02	.37	.02	.57	.56	1					
8.Gn.Sat.	.21	.10	.59	.19	.67	.79	.77	1				
9.Af.Com	.23	.31	.41	.20	.50	.64	.48	.56	1			
10.TLS TF	.23	.13	.36	.07	.57	.49	.74	.61	.41	1		
11.TLS TS	-.16	-.10	-.14	-.11	-.36	-.31	-.26	-.31	-.05	-.39	1	
12.MLQTF	.21	.07	.33	.06	.55	.42	.70	.53	.37	.89	-.27	1
13.MLQTS	.05	.02	.03	-.04	-.05	-.10	.01	-.10	.01	.05	.35	.15

Notes. DWWM: Tenure with current manager; Related: Relatedness need satisfaction; Compet: Competence need satisfaction; Auton: Autonomy needs satisfaction; Int: Intrinsic; Ext: Extrinsic; Sat: Satisfaction; Af. Com: Affective Organizational Commitment; TLS: Transformational Leadership Scale; MLQ: Multifactor Leadership Questionnaire; TF: Transformational; TS: Transactional. Correlations larger than .16 are significant at .05, correlations larger than .20 are significant at *p* <.01.

Construct Validation of the TLS

It was hypothesized that; subordinates who gave higher scores to their supervisors on the transformational/transactional leadership dimensions of the TLS would also give higher scores on the respective dimensions of the MLQ 5X-Short Form. Hypotheses 1 was supported. There was a significant positive relationship between the transformational leadership scores of leaders on the TLS and on the MLQ ($r = .89$, $p < .001$). Aggregated scores were also highly correlated ($r = .92$, $p < .001$, $N = 38$). There was also a significant positive relationship between the transactional leadership scores of leaders on the newly developed items and on the MLQ ($r = .35$, $p < .001$). Though not significant with a sample of 38, aggregated scores had a similar effect size of .32. Additionally; a significant inverse association was found between the perceived transformational and transactional leadership scores on the newly developed scale ($r = -.39$, $p < .001$). This association was positive but non-significant ($r = .15$) on the MLQ factors.

Concurrent Criterion-related Validity of the TLS

Employees' perceptions of their superiors' transformational leadership style was expected to have moderate-to-high associations with job attitudes, self-reported performance, and fulfillment of basic psychological needs. Correlation analyses showed that these outcomes were significantly correlated with TF with effect sizes ranging from .36 to .74, except for the satisfaction of the competence need.

Hierarchical regression analysis was performed by controlling for tenure with the current manager, followed by the inclusion of transformational and transactional factors of the TLS in the next step. Hypotheses 2a, 2b, and 2c were supported. The level of subordinate perceptions of their manager to be a transformational leader significantly predicted their job satisfaction, affective organizational commitment, fulfillment of their work-related basic psychological needs, and self-reported extra effort and effectiveness, with moderate-to-high effect sizes. Transformational leadership perceptions measured with the TLS added from 10% to 73% of variance over tenure with the current manager in the prediction of these criteria. On the other hand, transactional leadership perception was a significant predictor only of extra effort, and of autonomy, though inversely. The level of subordinates' own competence perception was not predicted by how much they perceive their manager to be a transformational leader ($\beta = .03$, $p = .75$) or a transactional leader ($\beta = -.10$, $p = .23$). Regression analyses results are displayed in Table 4.

Table 4. Hierarchical Regression Analyses Predicting Work Attitudes and Work-related Basic Psychological Needs Satisfaction

Dependent Variables:	Intrinsic Sat.	Extrinsic Sat.	General Sat.	Affective Org. Com.
Step 1				
1. DWWM	.19*	.19*	.21**	.23**
R^2	**.04**	**.04**	**.04**	**.05**
F	6.36*	5.80*	7.28**	9.13**
Df	(1, 163)	(1, 163)	(1, 163)	(1, 163)
TLS				
Step 2				
2. TF	.42***	.75***	.57***	.43***
TS	-.13	.04	-.08	.15
R^2change	**.23**	**.51**	**.34**	**.15**
F change	24.58***	89.97***	43.94***	15.28***
Df	(2, 161)	(2, 161)	(2, 161)	(2, 161)
MLQ				
Step 2				
2. TF	.42***	.71***	.54***	.35***
3. TS	-.17*	-.10	-.19**	-.05
R^2change	**.18**	**.47**	**.29**	**.11**
F change	18.18***	76.15***	34.06***	11.02***
Df	(2, 161)	(2, 161)***	(2, 161)	(2, 161)

Notes. Values in table across predictors are Beta weights, unless otherwise indicated. Percent of incremental variance is shown in bold type. DWWM: Tenure with the current manager, TLS: Transformational Leadership Scale; MLQ: Multifactor Leadership Questionnaire; TF: Transformational; TS: Transactional; Sat: Satisfaction; Org. Com: Organizational Commitment. * $p < .05$; ** $p \le .01$; *** $p < .00$

For exploratory purposes; another series of hierarchical regression analyses were conducted with the MLQ. Leadership perceptions added from 9% to 73% of variance in the prediction of criteria. Predictive powers of transformational and transactional leader perceptions were very similar to those obtained with the TLS (see Table 4), with the exception of extra effort.

Table 4. Continued

Dependent Variables:	Relatedness	Autonomy	Extra Effort	Effectiveness
Step 1				
1. DWWM	.18*	.28***	.21**	
R²	**.03**	**.08**	**.05**	
F	5.63*	13.87***	7.62**	
Df	(1, 163)	(1, 163)	(1, 163)	
TLS				
Step 2				
2. TF	.34***	.47***	.92***	.76***
TS	.01	-.15*	.13***	.04
R²change	**.10**	**.28**	**.73**	**.55**
F change	9.73***	35.60***	252.66***	99.68***
Df	(2, 161)	(2, 161)	(2, 161)	(2, 162)
MLQ				
Step 2				
2. TF	.31***	.53***	.88***	.80***
3. TS	-.02	-.14*	-.01	.00
R²change	**.09**	**.27**	**.73**	**.64**
F change	8.18***	32.80***	265.48***	141.25***
Df	(2, 161)	(2, 161)	(2, 161)	(2, 161)

Notes. Values in table across predictors are Beta weights, unless otherwise indicated. Percent of incremental variance is shown in bold type. DWWM: Tenure with the current manager, TLS: Transformational Leadership Scale; MLQ: Multifactor Leadership Questionnaire; TF: Transformational; TS: Transactional. * $p < .05$; ** $p \leq .01$; *** $p < .00$

Conclusion, Discussion and Recommendations

The current study provided initial evidence for the construct and concurrent-criterion-related validation of the newly developed Transformational Leadership Scale. The scale also has elements from the Turkish culture that may also apply to similar contexts.

Specifically, we provided evidence for the construct validity of the TLS as demonstrated with moderate-to-high correlations with the MLQ. The two main factors had good internal consistency and ICC values. Subordinates led by the same supervisor had quite similar perceptions of the level of his/her transformational style and such perceptions could be distinguished across groups. MLQ items/factors did not yield comparable perceptions within a group.

Concurrent criterion-related validation supported the expected findings for transformational and transactional factors based on the TLS. According to Bass (Bass 19), transformational leadership is more effective than transactional leadership in many aspects. Indeed the literature supports the claim based on associations with a multitude of motivational variables (e.g., Goodwin et al. 409; Rowold 403; Kovjanic et al. 1031; Walumbwa et al. 515). TLS transformational leadership predicted motivational variables such as work attitudes and work-related basic psychological needs, together with self-perceptions of effort and performance effectiveness; which are in accordance with the literature, except for the satisfaction of need for competence. It can be argued that feeling competent may arise based on the nature of the tasks or from self-confidence levels together with the knowledge, skills, and abilities the person brings to the job, but is less likely to be affected by the manager. Transactional leadership perception was a significant predictor only of extra effort with a smaller effect size. Transactional leaders may be causing subordinates to show extra effort because of controlling their behaviors by contingent reward/punishments or by controlling their behaviors actively.

A notable finding was the significant negative relationship between the new scale's transformational and transactional factors; although no significant association was observed for MLQ. The newly developed items for transactional leadership also correlated negatively with the transformational scale of the MLQ ($r = -.27$), though the TLS did not correlate with the transactional scale of the MLQ. These findings suggest that the TLS gave expected associations, but the nature of the transactional scale was different from that of the MLQ. The MLQ contingent reward dimension (e.g., "My leader makes clear what one can expect to receive when performance goals are achieved") is highly correlated with MLQ transformational leadership ($r = .60$); and thus is contributing to a non-significant association between the overall MLQ transactional and transformational scales as the remaining transactional dimensions have zero or negative associations with transformational leadership. Similarly, Bycio and colleagues found that the contingent reward scale was strongly associated with the transformational scales with correlations ranging from .79 to .83 (as cited in Rafferty and Griffin 329). These items reflect a leader who makes expectations clear for subordinates, rather than a leader who contingently rewards/punishes. Items developed for the contingent reward sub-dimension (e.g., "My manager makes me feel our relationship is like a trade; I can only take as much as I give") reflect a strict leader who contingently rewards/punishes.

Sub-dimensions of transformational leadership could not be obtained in the present data set. Indeed, findings in the literature suggest a lack of support for the hypothesized factor structure and the discriminant validity of the components as measured with the MLQ; only supporting identification of the higher order factors (e.g., Avolio, Bass and Jung 441; Carless 353; Den Hartog, Van Muijen and Koopman 19; Rafferty and Griffin 329). Carless argued that; rather than the sub-dimensions, higher-order transformational and transactional leadership should be studied. The TLS satisfies this need.

Contributions, Limitations, and Future Directions

The current measure is robust in terms of its transformational scale content as multiple methods were employed in forming the items including literature reviews with sub-dimension definitions and valued cultural demonstrations of leadership behaviors, and conducting interviews with employees to derive specific behavioral descriptions of how a leader could motivate, encourage, and employees.

As this study was underway, another contribution to the leadership literature in Turkey came from a locally developed leadership scale by Karakitapoğlu-Aygün and Gümüşlüoğlu (Karakitapoğlu-Aygün and Gümüşlüoğlu 125), including styles related to inspiring-charismatic, considerate-paternalistic, and active-stimulating. Both scales include paternalistic elements observed in Turkey and both predict valued work outcomes. Karakitapoğlu-Aygün and Gümüşlüoğlu showed that culture-specific transformational leadership perceptions in Turkey could predict commitment to the leader and department, identification with the leader and department, leader-member exchange, interaction with the supervisor, empowering, and team performance. The TLS of the present study further contributes to the literature by expanding the criteria in terms of the outcomes which are targeted by transformational leaders and showed that a locally-developed transformational leadership scale could also predict work satisfaction, self-rated effort and performance effectiveness, and satisfaction of basic psychological needs.

Future research is needed to study the generalizability of the TLS in the Turkish context. Generalizability of findings requires data from multiple organizations with a more diverse background in terms of industry and job types. We would like to encourage researchers from Turkey and from more diverse cultural work contexts to study the validity of the scale with a broader nomological network and to further study the applicability of the TLS in diverse work contexts.

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APPENDIX 1

TLS Items in Turkish

Dönüştürücü ve Etkileşimli Liderlik Ölçeği

Birazdan okuyacağınız ifadeler, yöneticinizin çeşitli yönleriyle ilgilidir. Lütfen cümleleri dikkatlice okuyarak söz konusu ifadeye ne ölçüde katıldığınızı, 5-noktalı derecelendirme ölçeğini kullanarak belirtiniz.

1 = Kesinlikle katılmıyorum

2 = Katılmıyorum

3 = Ne katılıyorum ne katılmıyorum (Kararsızım)

4 = Katılıyorum

5 = Kesinlikle katılıyorum

Dönüştürücü liderlik maddeleri:

Yöneticim:

1. ...beni bir görev için motive etmeye çalışırken, görevle ilgili içsel motivasyonumu yükseltmeye çabalar.

2. ...ben ve takım arkadaşlarımın yetkinliklerini, işle igili kişisel ilgi ve ihtiyaçlarını ve her birimizi nasıl motive edeceğini bilir.

3. ...bana yaptığım işin değerli ve işe yarar olduğunu hissettirir.

4. ...işleri planlar ve yürütürken bizi de fikir üretmemiz için teşvik eder ve önerilerimizi dinler.

5. ...işyerinde kendimi aile ortamında gibi hissettirir.

6. ...yaptıklarımın kısa veya uzun vadede firmaya sağlayacağı katkılar konusunda beni bilgilendirir.

7. ...beğendigi fikirlerimi takdir etmekle kalmaz, onları uygulamaya geçirmemi de teşvik eder.

8. ...iş yapış tarzı, kişisel özellikleri ve iletişim becerisiyle bize iyi bir örnek teşkil eder.

9. ...düşüncelerimi özgürce ifade edebilmem için beni teşvik eder.

10. ...beni varsayılanı sorgulamaya, yeni çözüm yolları üretmeye teşvik eder; yaratıcılığımı destekler.

11. ...alandaki yenilikleri takip etmemiz için teşvik eder.

12. ...bana ve takım arkadaşlarıma olumlu özelliklerimizi ve yeteneklerimizi hatırlatarak yapabileceklerimiz ve başarabileceklerimiz konusunda bizi heyecanlandırır.

13. ...iş süreçleriyle ilgili tüm bildiklerini bana aktarmaya çabalar.

14. ...eksik veya gelişime açık yönlerim için eğitimler planlar.

15. ...bana onun da benden öğrenebilecekleri olduğunu hissettirir.

16. ...beni bir çalışan olmanın dışında bir insan olarak da önemser.

17. ...görev dağılımı yaparken, kişisel ilgilerimizi ve yeteneklerimizi de göz önünde bulundurur.

18. ...bize performans hedefleri koyar ve bizi başarılı olduğumuz ölçüde ödüllendirir.
    (binişen madde)

19. ...mesai saatlerimin bir bölümünü, aklımdaki yeni projeler üzerinde çalışmam için kullanmama müsaade eder.

20. ...ihtiyaç duyduğumda iş dışı özel problemlerim için bana yardım eder.

21. ...hem mesleki hem kişisel gelişimim için çeşitli seminerlere katılımımı destekler.

22. ...istersem iş dışı konularda da benimle konuşur.

23. ...bana saygılı davranır.

24. ...davet etmem halinde özel hayatımdaki önemli sosyal etkinliklere katılır (düğün, doğum günü)

25. ...inisiyatif almamı destekler.

26. ...gerektiğinde bize önemli sorumluluklar verir.

Etkileşimci liderlik maddeleri:

27. ...işlerin olması gereken şekilde gitmesini engelleyecek her türlü duruma karşı tetikte olduğunu hissettirir. **(binişen madde)**

28. ...kendisinden farklı düşündüğüm durumlarda, fikirlerimi değiştirmeye ve kendi fikirlerini empoze etmeye çalışır. **(Dönüştürücü liderlik boyutuna yüklenen madde)**

29. ...olası herhangi bir hatamı tespit etmek ve gerekirse müdahalede bulunmak adına sıklıkla davranışlarımı gözler ve kontrol eder.

30. ...bana herhangi bir işi yaptırmak için tehdit kullandığı olur.

31. ...istediği bir işi yapamadığımda bana çeşitli yollarla yaptırım uygular.

32. ...bana bir görev verdikten sonra, hata yapmamı önlemek için talimat vermeye devam eder.

33. ...ancak istediği işi, istediği şekilde tamamlamama bağlı olarak beni ödüllendirir.

34. ...ancak verdiğim kadarını alabileceğimi hissettirir; ilişkimiz bir çeşit ticarete benzer.