

## Relations and Effects of Transformational Leadership: A Comparative Analysis with Traditional Leadership Styles

Fernando Molero<sup>1</sup>, Isabel Cuadrado<sup>1</sup>, Marisol Navas<sup>2</sup>, and J. Francisco Morales<sup>1</sup>

<sup>1</sup>Universidad Nacional de Educación a Distancia (UNED), Madrid

<sup>2</sup>Universidad de Almería, Spain

This study has two main goals: (a) to compare the relationship between transformational leadership and other important leadership styles (i.e., democratic versus autocratic or relations- and task-oriented leadership) and (b) to compare the effects of transformational leadership and the other styles on some important organizational outcomes such as employees' satisfaction and performance. For this purpose, a sample of 147 participants, working in 35 various work-teams, was used. Results show high correlations between transformational leadership, relations-oriented, democratic, and task-oriented leadership. On the other hand, according to the literature, transformational leadership, especially high levels, significantly increases the percentage of variance accounted for by other leadership styles in relevant organizational outcome variables (subordinates' performance, satisfaction and extra effort).

*Keywords:* transformational leadership, autocratic and democratic leadership, relationship-oriented and task-oriented leadership

El presente trabajo persigue dos objetivos principales: (a) comparar las relaciones del liderazgo transformacional con otros estilos de liderazgo clásicos en la literatura organizacional, tales como el liderazgo democrático versus autocrático o el orientado a la tarea-orientado a las relaciones y (b) comparar los efectos del liderazgo transformacional y los estilos de liderazgo mencionados sobre la satisfacción y la eficacia de los empleados. Para cumplir dichos objetivos se seleccionó una muestra de 147 participantes que trabajaban en 35 equipos de trabajo diferentes. Los resultados demuestran la existencia de correlaciones muy elevadas entre el liderazgo transformacional, el liderazgo orientado a las relaciones, el liderazgo democrático y el liderazgo orientado a la tarea. También se encuentra que, tal como predice la literatura, el liderazgo transformacional, sobre todo en niveles altos, aumenta significativamente el porcentaje de varianza explicado por los otros estilos en algunas variables de resultado organizacional importantes (la ejecución de subordinados, satisfacción y esfuerzo extra).

*Palabras clave:* liderazgo transformacional, liderazgo autocrático y democrático, liderazgo orientado a la tarea y liderazgo orientado a las relaciones

---

Acknowledgements: This investigation was funded by the Vice-Rectorry of Research of the Universidad Nacional de Educación a Distancia (UNED) as part of its plan for promoting research. The authors wish to express their thanks to Stefanie Sonnenberg from the University of Exeter for her comments on an initial version of this work.

Correspondence concerning this article should be addressed to Fernando Molero, Facultad de Psicología, Departamento de Psicología Social y de las Organizaciones, Universidad Nacional de Educación a Distancia, C/ Juan del Rosal, 10, 28040 Madrid (Spain). E-mail: fmolero@psi.uned.es

Translation: Virginia Navascués Howard

In the last two decades, the study of transformational leadership has become one of the main paradigms when addressing leadership within organizations. The term *transformational leadership* was created by the politologist, Burns, in 1978, but was subsequently developed by Bernard M. Bass and colleagues, until it reached its current importance (Avolio & Yammarino, 2002; Bass, 1985, 1999). According to Bass, there are two types of leadership: transformational and transactional. Through transformational leadership, the leader achieves important changes in the values and attitudes of the followers, as well as a notable improvement in their performance. Transactional leadership, in contrast, is based on the exchange of rewards between the leader and the followers.

At the theoretical level, this distinction between transformational leadership and transactional leadership is the key to Bass' theory. Readers are reminded that until the 80s, the notion of leadership based on exchange was predominant within social psychology. From this viewpoint, it was assumed that when the leaders or supervisors were able to provide their subordinates with adequate rewards, the subordinates would, in turn, give them their support and carry out their work. However, for Bass, the theories and studies based on exchange were missing something when explaining "high-level leadership", that is, leadership capable of achieving really important changes, both in the followers and in the organization.

This kind of leadership, also called charismatic leadership, had not been addressed by social and organizational psychology because it was considered an exceptional phenomenon, and, consequently, impossible to measure by questionnaires or to manipulate in experimental studies. However, Bass considers that "transformational leadership is not a rare phenomenon, limited to a few extraordinary leaders, but, on the contrary, it can be found in various degrees in all kinds of groups and organizations" (Bass, 1985, p. XV). In accordance with this idea, Bass and colleagues designed an instrument capable of measuring transformational leadership, thus achieving the important goal of incorporating its customary study into the area of social and organizational psychology. With this instrument, the Multifactor Leadership Questionnaire (MLQ), Bass and Avolio (1997) found that transformational leadership is made up of five factors: (a) Idealized Influence (attributed), or attributed charisma, which indicates to what extent followers trust and respect the leaders; (b) Idealized Influence (behaviors), which reflects to what extent the leaders perform behaviors that reflect their values, beliefs and their sense of a mission; (c) Inspirational Motivation, which is related to the way in which the leaders are capable of transmitting and expressing their project or vision; (d) Intellectual Stimulation, which indicates to what extent the leaders promote the growth and intellectual independence of their followers; and (e) Individualized Consideration, which has to do with the behaviors of socio-emotional support to followers, as well as their individual acknowledgement.

The MLQ also measures transactional leadership, which is made up of three factors: (a) Contingent Reward, which indicates to what extent the leader is capable of acknowledging and rewarding work well done; (b) Direction by Exception (active) which concerns the leader's behaviors aimed at foreseeing and solving mistakes and failures; and (c) Direction by Exception (passive), which refers to leaders who only act when an error occurs. Lastly, the questionnaire also measures the existence of a "Non-leadership" factor, called Laissez-faire, which refers to behaviors of leaders who avoid making decisions and are inhibited when exercising their leadership.

There is currently some controversy about the factor structure of the MLQ, and there are various alternatives to the above-mentioned nine-factor structure proposed by Bass and Avolio (1997). For example, Carless (1998) found that the transformational subscales of the MLQ present high correlations among each other and a high percentage of the variance of these subscales can be accounted for by a general transformational leadership factor. Likewise, some studies carried out in Spain (Cuadrado, 2002; Morales & Molero, 1995) found that the items of the transformational factors tend to converge in a single factor that accounts for most of the variance. Moreover, the transformational factor Contingent Reward was split into two factors: Reinforcing Leadership (when the leader acknowledges work well done) and Negotiating Leadership (when the leader negotiates with the employees the rewards to be received). On the other hand, the Direction by Exception and Laissez-faire factors were similar to those obtained by Bass.

The MLQ has been used in many investigations all over the world. In these investigations, it has been shown (see, for example, the meta-analyses of Lowe, Kroeck, & Sivasubramaniam, 1996, or of Dumdum, Lowe, & Avolio, 2002) that there is a very high correlation between the leaders' or supervisors' transformational leadership scores and their subordinates' satisfaction and efficacy. Transactional leadership also has positive relations with these variables, but of a significantly lower magnitude. However, the correlations of employees' efficacy and satisfaction with the Laissez-faire factor are highly negative. This same pattern of results was also found in Spanish samples (i.e., Cuadrado, 2002; Morales & Molero, 1995).

#### Relationship between transformational leadership and other styles of leadership

A leadership style is a relatively stable pattern of behavior exhibited by leaders (Eagly & Johannesen-Schmidt, 2001). Ever since the 1940s, researchers have been primarily interested in determining the behaviors of leaders, especially those of effective leaders (Bryman, 1992). The origins of this approach can be seen in the pioneer experiments of Lewin and collaborators (Lewin, 1939/1964; Lippitt, 1940; Lippitt

& White, 1943) about the effects of democratic and autocratic leadership in groups of children. Later on, there were several lines of research, among which the so-called Ohio approach (Stogdill & Coons, 1957) became predominant. After many investigations, these authors proposed two basic dimensions in leaders' behaviors, Structure Initiation, which defines task-oriented leaders, and Consideration, which defines relation-oriented leaders (Molero, 2004). Due to a specially created questionnaire, the Leader Behavior Descriptions Questionnaire (LBDQ-XII; Stogdill, 1963), these leadership styles received the most attention by researchers when the transformational leadership paradigm emerged in the mid 1980s.

According to Bass (1999), transformational leadership is conceptually independent of the above-mentioned leadership styles, based on exchange. Thus, transformational leaders can be directive or participative, relations-oriented or task-oriented, depending on the situation or on their personal characteristics. In the same vein, transformational leaders can perform behaviors that are characteristic of other leadership styles and, in fact, a large part of their efficacy can be lost if the transactional relation with their employees, which is characteristic of other styles, ceases to exist (Bass, Avolio, & Goodheim, 1987).

In order to verify the convergent and discriminant validity of Bass' model, it should be very important to determine what kind of relationship exists among transformational leadership and the leadership styles traditionally studied in organizational psychology (democratic vs. autocratic and task-oriented vs. relation-oriented), based on exchange. However, there have been very few attempts to carry this out. There has been much research examining the inter-correlations of the diverse factors or the MLQ. These investigations have revealed high correlations (around .60) between transformational leadership and the transactional factor of Contingent Reward. Whereas this could be interpreted as a theoretical weakness of the model (it is assumed that transformational leadership is different from transactional leadership), this result is justified by Avolio and Bass (2004, p. 70), who indicate that: (a) both transformational leadership and contingent reward represent active and positive forms of leadership; (b) a leader can be transactional and transformational at the same time; (c) adequate use of contingent rewards increases subordinates' trust in their leader, which can be a good basis for a leader to be perceived as transformational (Shamir, 1995).

Among the few works that analyze the relation between transformational leadership and other types of leadership not measured by the MLQ is the investigation of Seltzer and Bass (1990). In this work, they found high correlations ( $r = .69$ ) between Individualized Consideration, as measured by the MLQ, and Consideration, as measured by the LBDQ (Stogdill, 1963). However, Bass and Avolio (1993, p. 63) stated that these two factors have different meanings, because Individualized Consideration has to do with individual treatment and the personal development of the team members,

whereas as the Consideration measured by the LBDQ has to do with the leader's sociability and accessibility.

As revealed in the review of the literature, studies that analyze the relations of transformational leadership with other leadership styles are almost completely lacking. Therefore, to examine such relations is one of the main goals of this work. Following the reasoning of Avolio and Bass (2004) when they justify the high correlations between transformational leadership and contingent reward, we could expect high correlations between transformational leadership and active and positive leadership styles that contribute to establish trust in the leader and an absence of correlations with the styles that do not meet these conditions. Thus, the following hypotheses were formulated:

Hypothesis 1a: There will be significant correlations between transformational leadership and democratic, relation- and task-oriented leadership styles.

Hypothesis 1b: There will be no significant correlations between transformational leadership and autocratic leadership.

### *The Effects of Transformational Leadership*

One of the main predictions of the model of Bass (1985, 1998) is the so-called *augmentation hypothesis*. This hypothesis sustains that transformational leadership increases the explanatory capacity of transactional leadership to predict followers' satisfaction and achievement. This effect has been verified in various investigations (Avolio & Howell, 1992; Hater & Bass, 1988; Waldman, Bass, & Yammarino, 1990). The same effect was found by Seltzer and Bass (1990) in their above-mentioned study. In that investigation, the transactional leadership factors of the MLQ were replaced by the Structure Initiation and Consideration scales of the LBDQ. The augmentation effect of transformational leadership on the other leadership styles to predict the outcome variables was also found in this case.

The results generally show that the positive effects of transactional leadership, especially its Contingent Reward factor, significantly increase when they are combined with transformational leadership (Bass, 1985, 1998). However, there are few studies that reveal the existence of the augmentation effect of transformational leadership on other leadership styles not measured by the MLQ. Thus, our second goal is to determine whether transformational leadership also increases the percentage of variance accounted for by traditionally studied leadership styles not contemplated in the MLQ in diverse outcome variables that are important for organizations, such as satisfaction with the leader and with the work, or the unit's perceived effectiveness.

To achieve this goal, we decided that it would be illustrative to split the sample as a function of the median of the leaders' score in transformational leadership. When transformational leadership is high (scores higher than the median), the augmentation effect on the other styles to

increase the percentage of explained variance of the outcome variables will be higher than when transformational leadership is low (scores lower than the median). Thus, the following hypotheses were formulated:

Hypothesis 2a: High transformational leadership, in comparison to low transformational leadership, will increase to a greater extent the percentage of variance of the outcome variables accounted for by the rest of the leadership styles.

Hypothesis 2b: When transformational leadership is high, the remaining leadership styles do not significantly increase the percentage of variance of the outcome variables accounted for by such transformational leadership. In contrast, when transformational leadership is low, the remaining leadership styles can contribute significantly to account for the variance of the outcome variables.

Hypothesis 3: Leaders with scores higher than the median in transformational leadership, in comparison to those who obtain lower scores, will be perceived as more effective, and their subordinates will expend extra effort and feel more satisfied. Likewise, perception of the work unit's efficacy will be higher.

## Method

### Participants

The sample was made up of 147 participants (40% men and 60% women) who worked in 35 different work units. They were asked to assess their direct supervisor's leadership style, as well as some variables related to the effectiveness of the supervisor and the unit, and their satisfaction with the work.

Sixty-six percent (23) of the work teams belonged to the public sector, and 34% (12) to the private sector. The study was carried out in a southeastern area of Spain. To avoid a possible bias in the results due to the use of a single kind of organization, the sample was made up of work teams belonging to organizations performing different kinds of activities (education, health, financial sector, local administration, etc.). The number of people per team ranged between 3 and 13 (not including the leader or supervisor), and the mean was 5.5 persons per group. Their age ranged between 20 and 57 years, with a mean age of 35.7 years ( $SD = 7.52$ ).

### Instruments

We used a questionnaire that measures the different types of leadership and the outcome variables included in the study. In all cases, the responses were recorded on a Likert-type scale, ranging from 1 (*not at all*) to 5 (*almost always*). Employees were requested to assess either their direct supervisor's behavior (in the case of leadership styles), or their satisfaction and the perceived efficacy (in the case

of the outcome variables). The items that make up all the subscales created for this study can be seen in the Appendix.

### Leadership Measures

*Transformational and transactional leadership.* The 70-item version of the MLQ (Bass & Avolio, 1990) was employed. The Spanish version of the questionnaire was validated by Molero (1994) and has been used in various studies since then (i.e., Amador, 2002; Cuadrado & Molero, 2002). Because of the sample size, in our analyses, we used the factor structure proposed by Bass & Avolio. As very high correlations were obtained ( $r > .90$ ) among all the transformational factors of the questionnaire, we decided to group them into a single transformational leadership variable ( $\alpha = .97$ ). The Direction by Exception and Laissez-faire factors were not considered in the subsequent analyses due to their low reliability ( $\alpha < .60$ ).

*Autocratic and democratic leadership.* A 10-item scale was constructed, 5 items for each style, according to the classic definitions (Lewin, 1939/1964; White & Lippitt, 1960), and to some more recent approaches (i.e., Eagly & Johnson, 1990; Luthar, 1996). In order to improve reliability, one item was eliminated from the autocratic leadership subscale. The final reliability obtained was Cronbach's  $\alpha = .63$  for autocratic leadership and  $\alpha = .84$  for democratic leadership.

*Task- and relations-oriented leadership.* A 10-item scale was constructed, 5 items for each of these two leadership styles, based on the work of Yukl (1999a). Reliability was Cronbach's  $\alpha = .83$  for task-oriented leadership and  $\alpha = .90$  for relations-oriented leadership.

### Validation of the leadership measures

The scales designed to measure autocratic versus democratic leadership and task- or relations-oriented leadership were validated in two different ways. Firstly, through the judgment of 90 university psychology students, we established that most of the items classified a priori according to the literature as democratic, autocratic, task- or relations-oriented were perceived as such by the students. Moreover, the items that define democratic/autocratic leadership, on the one hand, and task-oriented/relations-oriented leadership, on the other, were generally perceived as contrary (Cuadrado, 2001, 2002). From these results, the most adequate items were selected and administered to measure leadership in a sample of 118 company directors who were requested to assess their own leadership style. The scales generally showed satisfactory reliability and validity (Cuadrado, 2002; Cuadrado, Molero, & Navas, 2003).

### Organizational Outcome Variables

*Leader's efficacy and unit efficacy.* Following Bass and Avolio (1990), 3 questions were posed about the leader's efficacy ("How efficient is your leader: 1) when representing

the unit or department before a higher authority? 2) when satisfying needs concerning the work of the people on his/her team? and 3) when meeting the requirements or achieving the objectives of the organization?" A reliability of  $\alpha = .85$  was obtained, so these 3 items were grouped into a single variable.

Department or work unit efficacy was measured by a single item also taken from the study of Bass and Avolio (1990). This item was: "The general efficacy of your work unit or department can be considered ... (1 = very low; 5 = very high)."

#### *Subordinates' Extra Effort*

This was measured on a 3-item scale that is included in the MLQ. These items were: "To what extent does your leader or supervisor (a) get you to do more than you thought you could do? (b) motivate team members to do more than they thought they could? (c) increase the team members' motivation to achieve success?" As reliability was satisfactory ( $\alpha = .88$ ), these 3 items were grouped into a single variable.

#### *Employees' Satisfaction*

Employees' satisfaction was measured with 3 items extracted from the literature: "To what extent are you satisfied: (a) with your work in general? (b) with belonging to this organization? (c) with the leadership methods employed by your supervisor?" As they obtained adequate reliability ( $\alpha = .67$ ), the 3 items were grouped into a single measure. This scale has been used previously (Cuadrado, Molero, & Navas, 2003; Molero, 1994), showing good reliability and validity.

### Analyses and Results

Before presenting the results, we underline that in this study, as in most of the works on transformational leadership, the analysis of the results is performed at the individual level. We believe this kind of analysis is adequate for the goals

pursued. However, it is important to note that, within each work team, there was a high degree of agreement when assessing their respective supervisors. In one half of the groups, the interrater reliability index (Rwg) (James, Demaree, & Wolf, 1984) was higher than .80, and in the other half, higher than .70. This means that most of the people who work with a specific leader or supervisor express a reasonable degree of agreement about their leader's behaviors.

#### *Relations between Transformational Leadership and Exchange-Based Leadership Styles*

In Table 1 are displayed the descriptive statistics of the leadership styles, as well as the correlations between transformational leadership and the rest of the leadership styles.

According to the subordinates (Table 1), the styles more frequently employed by their supervisors are relations-oriented leadership and task-oriented leadership ( $M = 3.7$  and  $3.67$ , respectively), followed by democratic leadership ( $M = 3.58$ ), and transformational leadership ( $M = 3.34$ ). The least frequently used styles were autocratic leadership ( $M = 2.76$ ) and contingent reward ( $M = 2.91$ ).

Very high correlations were observed between transformational leadership and relations-oriented leadership ( $r = .85$ ), democratic leadership ( $r = .82$ ), and task-oriented leadership ( $r = .77$ ). The relation dropped ( $r = .63$ ) in the case of the transactional factor contingent reward, although it was still high. The correlations with autocratic leadership are practically inexistent ( $r = -.01$ ). These results confirm our Hypothesis 1.

#### *Effects of the different Leadership Styles on the Organizational Outcome Variables*

In order to verify Hypothesis 2a and 2b, some hierarchical regression were performed using the leadership styles as independent variables and the organizational outcome variables as dependent variables. Firstly, the transactional leadership styles (contingent reward, autocratic and democratic leadership, relations-oriented and task-

Table 1

*Means, Standard Deviations of Leadership Styles and Correlations between Transformational Leadership Scores and the Rest of the Leadership Styles*

Leadership styles	<i>M</i>	<i>SD</i>	Transformational leadership
Transformational leadership	3.34	0.83	—
Contingent reward	2.91	0.72	.63***
Autocratic leadership	2.76	0.83	-.01
Democratic leadership	3.58	0.95	.82 ***
Relationship-oriented leadership.	3.70	1.02	.85***
Task-oriented leadership	3.67	0.86	.77***

Note.  $n = 147$ . Scores range between 1 and 5. Higher scores indicate more frequent use of the leadership style.

\*\*\* $p < .0001$ .

oriented leadership) were entered first in the equation. Subsequently, transformational leadership was entered to determine whether the percentage of variance accounted for increased (Tables 2 and 4) (Hypothesis 2a). Then, the order of entering the independent variables was reversed entering

transformational leadership in the first step and the remaining transactional styles in the second step (Tables 3 and 5) (Hypothesis 2b). In Tables 2 and 3 can be seen the results of the subsample that assessed its leader as higher than the median (*Mdn* = 3.41) in transformational leadership and in

Table 2

Results for Hierarchical Regression: Augmenting Effect of Transformational leadership for the Subsample that Assigned their Leader Scores in Transformational Leadership Higher than the Median

	Leader's Effectiveness		Unit Effectiveness		Subordinate's Extra Effort		Subordinate's Satisfaction	
	$\beta$	<i>t</i>	$\beta$	<i>t</i>	$\beta$	<i>t</i>	$\beta$	<i>t</i>
1. Transactional styles								
<i>Democratic</i>	-.01	-0.06	-.06	-0.42	-.05	-0.30	-.25	-0.15
<i>Task-oriented</i>	.26	1.96*	.20	1.42	.02	0.10	.09	0.58
<i>Relation-oriented</i>	.28	1.90	.26	1.62	.73	3.74**	.74	4.18**
<i>Contingent Reward</i>	.04	0.35	.15	1.21	.01	0.01	.09	0.66
<i>Autocratic</i>	-.01	-0.03	-.07	-0.77	.07	0.68	-.07	0.75
2. Transformational leadership	.47	2.34*	.43	1.96*	.49	7.31**	1.03	4.90
Variance explained ( <i>N</i> = 74)								
	Leader's Effectiveness		Unit Effectiveness		Subordinate's Extra Effort		Subordinate's Satisfaction	
	<i>R</i> <sup>2</sup>	<i>F</i> ( $\Delta R^2$ )	<i>R</i> <sup>2</sup>	<i>F</i> ( $\Delta R^2$ )	<i>R</i> <sup>2</sup>	<i>F</i> ( $\Delta R^2$ )	<i>R</i> <sup>2</sup>	<i>F</i> ( $\Delta R^2$ )
1. Transactional styles	.17	2.84*	.12	1.83	.26	4.68**	.25	4.56**
2. Transformational leadership	.06	5.50*	.05	3.84*	.33	53.5**	.20	24.0**

\**p* < .05. \*\**p* < .001.

Table 3

Results for Hierarchical Regression: Augmenting Effect of Transactional styles for the Subsample that Assigned their Leader Scores in Transformational Leadership Higher than the Median

	Leader's Effectiveness		Unit Effectiveness		Subordinate's Extra Effort		Subordinate's Satisfaction	
	$\beta$	<i>t</i>	$\beta$	<i>t</i>	$\beta$	<i>t</i>	$\beta$	<i>t</i>
1. Transformational leadership	.61	4.03***	.54	3.33**	1.46	9.44***	1.11	6.84***
2. Transactional styles								
<i>Democratic</i>	-.04	-0.30	-.09	-0.62	-.15	-1.11	-.32	-2.25*
<i>Task-oriented</i>	.22	1.71	.17	1.18	-.11	-.82	.01	0.02
<i>Relation-oriented</i>	.11	0.70	.11	0.60	.19	1.18	.36	2.13*
<i>Contingent Reward</i>	.02	0.18	.13	1.09	-.06	-0.56	.05	0.38
<i>Autocratic</i>	.01	0.08	-.06	-0.69	.10	1.25	-.05	-0.63
Variance explained ( <i>N</i> = 74)								
	Leader's Effectiveness		Unit Effectiveness		Subordinate's Extra Effort		Subordinate's Satisfaction	
	<i>R</i> <sup>2</sup>	<i>F</i> ( $\Delta R^2$ )	<i>R</i> <sup>2</sup>	<i>F</i> ( $\Delta R^2$ )	<i>R</i> <sup>2</sup>	<i>F</i> ( $\Delta R^2$ )	<i>R</i> <sup>2</sup>	<i>F</i> ( $\Delta R^2$ )
1. Transactional styles	.19	16.3***	.13	10.88**	.55	89.2***	.39	46.82***
2. Transformational leadership	.05	0.89	.03	0.57	.03	1.07	.06	1.32

\**p* < .05. \*\**p* < .001. \*\*\**p* < .0001.

Tables 4 and 5, the results of the participants who allotted their leader scores below the median.

As can be seen in Table 2, in the subsample that assigned high transformational leadership scores to its leader, this leadership significantly increased the predictive capacity of

the rest of styles on the four organizational outcome variables. This increase was lower among the participants who gave their leader a score lower than the median in transformational leadership (Table 4). These results support the Hypothesis 2a.

Table 4

Results for Hierarchical Regression: Augmenting Effect of Transformational leadership for the Subsample that Assigned their Leader Scores in Transformational Leadership Lower than the Median

	Leader's Effectiveness		Unit Effectiveness		Subordinate's Extra Effort		Subordinate's Satisfaction	
	$\beta$	<i>t</i>	$\beta$	<i>t</i>	$\beta$	<i>t</i>	$\beta$	<i>t</i>
1. Transactional styles								
<i>Democratic</i>	.35	2.31*	.10	0.51	.14	1.01	-.08	-0.55
<i>Task-oriented</i>	.09	0.69	.24	1.37	.03	0.28	.11	0.90
<i>Relation-oriented</i>	.25	1.77	.17	0.93	.07	0.54	.25	1.90
<i>Contingent Reward</i>	-.34	-2.14*	-.37	-1.18	.64	4.60***	.06	0.44
<i>Autocratic</i>	.34	3.02**	.31	2.18*	.23	2.31*	.19	1.86
2. Transformational leadership	.54	2.02*	.67	1.99*	.99	4.77***	.39	1.62
Variance explained ( <i>N</i> = 73)								
	Leader's Effectiveness		Unit Effectiveness		Subordinate's Extra Effort		Subordinate's Satisfaction	
	<i>R</i> <sup>2</sup>	<i>F</i> ( $\Delta R^2$ )	<i>R</i> <sup>2</sup>	<i>F</i> ( $\Delta R^2$ )	<i>R</i> <sup>2</sup>	<i>F</i> ( $\Delta R^2$ )	<i>R</i> <sup>2</sup>	<i>F</i> ( $\Delta R^2$ )
1. Transactional styles	.33	6.69***	.19	3.17**	.48	12.45***	.20	3.31**
2. Transformational leadership	.04	4.12*	.04	3.95*	.13	22.74***	.03	2.62

\**p* < .05. \*\**p* < .001. \*\*\**p* < .0001.

Table 5

Results for Hierarchical Regression: Augmenting Effect of Transactional Styles for the Subsample that Assigned their Leader Scores in Transformational Leadership Lower than the Median

	Leader's Effectiveness		Unit Effectiveness		Subordinate's Extra Effort		Subordinate's Satisfaction	
	$\beta$	<i>t</i>	$\beta$	<i>t</i>	$\beta$	<i>t</i>	$\beta$	<i>t</i>
1. Transformational leadership	.62	4.15***	.45	2.42*	.97	8.02***	.44	3.39***
2. Transactional styles								
<i>Democratic</i>	.23	1.39	-.06	-0.28	-.10	-0.77	-.17	1.13
<i>Task-oriented</i>	-.08	-0.52	.02	0.08	-.29	-0.24*	-.02	-1.12
<i>Relation-oriented</i>	.23	1.62	.14	0.76	.02	0.17	.23	1.76
<i>Contingent Reward</i>	.49	-2.86**	-.57	-2.56*	.36	2.64*	-.05	-0.31
<i>Autocratic</i>	.34	3.10**	.32	2.24*	.23	2.67*	.19	1.89
Variance explained ( <i>N</i> = 73)								
	Leader's Effectiveness		Unit Effectiveness		Subordinate's Extra Effort		Subordinate's Satisfaction	
	<i>R</i> <sup>2</sup>	<i>F</i> ( $\Delta R^2$ )	<i>R</i> <sup>2</sup>	<i>F</i> ( $\Delta R^2$ )	<i>R</i> <sup>2</sup>	<i>F</i> ( $\Delta R^2$ )	<i>R</i> <sup>2</sup>	<i>F</i> ( $\Delta R^2$ )
1. Transactional styles	.20	17.22***	.08	5.84*	.48	64.41***	.14	11.53**
2. Transformational leadership	.18	3.72**	.16	2.79*	.14	4.75**	.09	1.52

\**p* < .05. \*\**p* < .001. \*\*\**p* < .0001.

Table 6  
*Descriptive Statistics of the Outcome Variables as a Function of the Level of Transformational Leadership*

Outcome Variables	High Transformational Leadership > <i>Mdn</i> (3.42)		Low Transformational Leadership < <i>Mdn</i> (3.42)		<i>F</i> Value***
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Leader's effectiveness	4.43	0.51	3.34	0.86	$F(1, 142) = 87.1$
Unit's effectiveness	4.36	0.54	3.52	1.00	$F(1, 142) = 39.4$
Extra effort	3.88	0.70	2.37	0.84	$F(1, 145) = 137.2$
Satisfaction	4.16	0.63	3.25	0.71	$F(1, 144) = 66.1$

*Note.* Scores range between 1 and 5. Higher scores indicate higher perception of effectiveness, extra effort, or satisfaction.

\*\*\*  $p < .0001$  in all cases.

On the other hand, when transformational leadership was entered first into the equation, the rest of the leadership styles did not significantly increase the percentage of variance accounted for when transformational leadership was high (Table 3). In contrast, the contribution of the transactional leadership styles is higher when transformational leadership was low (see Table 5). These results support Hypothesis 2b.

In order to verify Hypothesis 3, a one-way analysis of variance was conducted, using the level of transformational leadership (high or low) as the independent variable and the four organizational outcome indexes as dependent variables. The results can be seen in Table 6.

In this table, it can be seen that high transformational leadership, in comparison to low transformational leadership, caused employees to perceive their leaders and work units as more effective, to be capable of making more extra effort, and feeling higher satisfaction with the work. These results confirm Hypothesis 3.

## Discussion

The main goal of this investigation was to analyze the relations and effects of transformational leadership and compare them with those obtained by other transactional or exchange-based leadership styles (Bass, 1985). It is noteworthy that, in the extensive literature about transformational leadership, a clear absence of investigations of this kind was observed. However, this type of research is necessary to reinforce the convergent and discriminant validity of transformational leadership and to determine whether or not there are relevant leadership behaviors not taken into account by the MLQ (Yukl, 1999b).

At the theoretical level, Bass (1999) sustained that transformational leadership is conceptually independent of democratic vs. autocratic leadership styles or of task- or relations-oriented styles. However, depending on the situation or the transformational leader's personal characteristics, they

can use these kinds of behaviors and, in fact, they can lose a large part of their effectiveness if the transactional relation with their employees—as is typical of other styles—ceases to exist (Bass et al., 1987).

Our results confirm that transformational leadership is very closely related to relations-oriented leadership, democratic leadership, and task-oriented leadership. That is, with the three leadership styles that have traditionally been shown to be effective in organizational literature (Bass, 1990; Gastil, 1994). Though they were a bit lower, high correlations were also obtained with contingent reward, but there was practically no correlation with autocratic leadership. Although some high correlations had been reported in the literature between transformational leadership and contingent reward (Avolio & Bass, 2004), or between Individualized Consideration as measured by the MLQ and Consideration as measured by the LBDQ (see Seltzer & Bass, 1990), the high magnitude of some of the correlations found in our investigation is surprising, and this casts some doubts on whether transformational leadership is really different from some of the leadership styles analyzed.

Another way to verify the extent to which there are differences between transformational leadership and other styles is to compare their effects on diverse organizational variables. This was the second goal of this work. In the literature on transformational leadership, it is said that this leadership significantly increase the explanatory capacity of transactional leadership to predict diverse organizational outcome variables (augmentation hypothesis; Avolio & Bass, 2004; Avolio & Howell, 1992; Bass, 1985, 1999). However, the augmentation effect of transformational leadership on other styles not measured by the MLQ has hardly been analyzed.

In the attempt to highlight possible effects, in this investigation, we decided to split the sample by the median using the scores assigned to the leader in transformational leadership. Our results confirm the existence of an augmentation effect of transformational leadership on the other traditional leadership styles when accounting for four



important organizational outcome variables: the perceived effectiveness of the leader and the organization, the extra effort the employees are willing to expend, and work satisfaction. This effect is detected to a greater extent when levels of transformational leadership are medium-high (that is, higher than the median) and the effect on employees' satisfaction and the extra effort they are willing to expend is also higher.

In the same line, we found that people who assign high scores to their leaders in transformational leadership, compared to those who give low scores, consider their leaders and work units more effective, they are willing to expend more extra effort, and they feel more satisfied at work.

Taken conjointly, these results show that transformational leadership is closely related to some leadership styles that are classic in the literature of organizations, and that are "active and positive," in the words of Avolio and Bass (2004), such as relations-oriented leadership, democratic leadership, and task-oriented leadership. However, the results also shows that transformational leadership produces an augmentation effect in the variance accounted for by the other styles in diverse and important organizational variables. In this sense, it can be stated that transformational leadership, at least at high levels, produces different effects, and more positive ones, than the rest of the leadership styles analyzed.

This work helps fill in an important gap in the investigation on transformational leadership in which relations were not addressed, nor were the effects of this kind of leadership compared with other styles that have frequently appeared in the organizational literature since around 1950. For this purpose, we adapted and validated in Spain a set of instruments that measure a series of important leadership styles that are not considered by the MLQ, such as democratic, autocratic, task-oriented, and relations-oriented leaderships. This adaptation can be useful in future works.

However, in future investigations, it is also important to explore transformational leadership at its highest levels. In this way, more specific effects of such leadership could be analyzed. From this viewpoint, in our study, we split the sample by the median, and we considered transformational leadership to be high if the scores were higher than this cut-off point. However, it would be appropriate to apply more restrictive criteria, such as, for example, to consider that transformational leadership only exists when the MLQ score is higher than percentile 75. With this restriction we believe that the differences in the relations and effects of high and low transformational leadership would be much more pronounced. In our case, because of the sample size, such a selection was not possible. We believe, however, that in future works, it would be of the most importance to analyze what happens at the highest levels of transformational leadership.

## References

- Amador, R. (2002). *El líder y la cultura organizacional su incidencia en la eficacia de la empresa*. Las Palmas de Gran Canaria: Universidad de Las Palmas de Gran Canaria.
- Avolio, B.J., & Bass, B.M. (2004). *Multifactor Leadership Questionnaire*. 3<sup>rd</sup> edition, Manual and sampler set. Redwood City, CA: Mind Garden.
- Avolio, B.J., & Howell, J.M. (1992). The impact of leader behavior and leader-follower personality match on satisfaction and unit performance. In K.E. Clark, M.B. Clark, & D.R. Campbell (Eds.), *Impact of leadership* (pp. 225-236). Greensboro, NC: Center for Creative Leadership.
- Avolio, B.J., & Yammarino, F.J. (2002). *Transformational and charismatic leadership: The road ahead*. New York: Erlbaum.
- Bass, B.M. (1985). *Leadership and performance beyond expectations*. London: Free Press.
- Bass, B.M. (1990). *Task versus relations-oriented leadership*. In B.M. Bass (Ed.), *Bass & Stogdill's handbook of leadership* (pp. 473-510). New York: Free Press.
- Bass, B.M. (1998). *Transformational leadership: Industrial, military and educational impact*. Mahwah, NJ: Erlbaum.
- Bass, B.M. (1999). Two decades of research and development in transformational leadership. *European Journal of Work and Organizational Psychology*, 8, 9-32.
- Bass, B.M., & Avolio, B.J. (1990). *Transformational leadership development*. Palo Alto, CA: Consulting Psychologists Press.
- Bass, B.M., & Avolio, B.J. (1993). Transformational leadership: A response to critiques. In M.M. Chemers & R. Ayman (Eds.), *Leadership theory and research* (pp. 49-80). San Diego: Academic Press.
- Bass, B.M., & Avolio, B.J. (1997). *Full range leadership development, manual for the Multifactor Leadership Questionnaire*. Redwood City, CA: Mind Garden.
- Bass, B.M., Avolio, B.J., & Goodheim, L. (1987). Biography and the assessment of transformational leadership at the world-class level. *Journal of Management*, 13, 7-19.
- Bryman, A. (1992). *Charisma and leadership in organizations*. London: Sage.
- Burns, J.M. (1978). *Leadership*. New York: Harper & Row.
- Carless, S.A. (1998). Assessing the discriminant validity of transformational leader behavior as measured by the MLQ. *Journal of Occupational and Organizational Psychology*, 71, 353-358.
- Cuadrado, I. (2001). Cuestiones teóricas y datos preliminares sobre tres estilos de liderazgo. *Revista de Psicología Social*, 16, 131-155.
- Cuadrado, I. (2002). *Estilos de liderazgo y género: una perspectiva psicosocial*. Doctoral dissertation published in electronic edition. Universidad de Almería.
- Cuadrado, I., & Molero, F. (2002). Liderazgo transformacional y género: autoevaluaciones de directivos y directivas españoles. *Revista de Psicología del Trabajo y de las Organizaciones*, 18, 39-55.

- Cuadrado, I., Molero, F., & Navas, M. (2003). El liderazgo de hombres y mujeres: diferencias en estilos de liderazgo, relaciones entre estilos y predictores de variables de resultado organizacional. *Acción Psicológica*, 2, 115-129.
- Dumdum, R.U.; Lowe, K.B., & Avolio, B.J. (2002). A meta-analysis of transformational and transactional leadership correlates of effectiveness and satisfaction: An update and extension. In B.J. Avolio & F.J. Yammarino (Eds.), *Transformational and charismatic leadership: The road ahead* (pp. 35-66). New York: Erlbaum.
- Eagly, A.H., & Johannesen-Schmidt, M.C. (2001). The leadership styles of women and men. *Journal of Social Issues*, 57, 781-797.
- Eagly, A.H., & Johnson, B.T. (1990). Gender and leadership style: A meta-analysis. *Psychological Bulletin*, 108, 233-256.
- Gastil, J. (1994). A meta-analytic review of the productivity and satisfaction of democratic and autocratic leadership. *Small Group Research*, 25, 384-410.
- Hater, J.J., & Bass, B.M. (1988). Superiors' evaluations and subordinates' perceptions of transformational and transactional leadership. *Journal of Applied Psychology*, 73, 695-702.
- James, L.R., Demaree, R.G., & Wolf, G. (1984). Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology*, 69, 85-98.
- Lewin, K. (1939/1964). Experiments in social space. In D. Cartwright (Ed.), *Field theory in social science: Selected theoretical papers by Kurt Lewin* (pp. 71-83). New York: Harper Torchbooks.
- Lippitt, R. (1940). An experimental study of the effect of democratic and authoritarian group atmospheres. *University of Iowa Studies in Child Welfare*, 16, 43-95.
- Lippitt, R., & White, R.K. (1943). The social climate of children's groups. *Journal of Social Psychology*, 10, 271-301.
- Lowe, K.B., Kroeck, K.G., & Sivasubramaniam, N. (1996). Effectiveness correlates of transformational and transactional leadership: A meta-analytic review of the MLQ literature. *Leadership Quarterly*, 7, 385-425.
- Luthar, H.K. (1996). Gender differences in evaluation of performance and leadership ability: Autocratic vs. democratic managers. *Sex Roles*, 35, 337-361.
- Molero, F. (1994). *Carisma y liderazgo carismático: una aproximación empírica desde las perspectivas de Bass y Friedman*. Unpublished doctoral dissertation. Madrid: UNED.
- Molero, F. (2004). El liderazgo. In C. Huici & J.F. Morales (Eds.), *Psicología de grupos I: Estructura y procesos* (pp. 141-169). Madrid: UNED.
- Morales, J.F., & Molero, F. (1995). Leadership in two types of healthcare organization. In J.M. Peiró, F. Prieto, J.L. Meliá, & O. Luque (Eds.), *Work and Organizational Psychology: European contributions of the nineties* (pp. 209-221). East Sussex, UK: Erlbaum.
- Seltzer, J., & Bass, B.M. (1990). Transformational leadership: Beyond initiation and consideration. *Journal of Management*, 16, 693-703.
- Shamir, B. (1995). Social distance and charisma: Theoretical notes and an exploratory study. *Leadership Quarterly*, 6, 19-47.
- Stogdill, R.M. (1963). *Manual for the Leader Behavior Descriptions Questionnaire- Form XII*. Columbus, OH: Ohio State University.
- Stogdill, R.M., & Coons, A.E. (1957). *Leader behavior: Its description and measurement*. Columbus: Ohio State University.
- Waldman, D.A., Bass, B.M., & Yammarino, F.J. (1990). Adding to contingent reward behavior: The augmenting effect of charismatic leadership. *Group & Organization Studies*, 15, 381-394.
- White, R.K., & Lippitt, R. (1960). *Autocracy and democracy: An experimental inquiry*. New York: Harper.
- Yukl, G. (1999a). An evaluative essay on current conceptions of effective leadership. *European Journal of Work and Organizational Psychology*, 8, 33-48.
- Yukl, G. (1999b). An evaluation of conceptual weaknesses in transformational and charismatic leadership theories. *Leadership Quarterly*, 10, 285-305.

Received September, 4, 2006  
 Review received January, 17, 2007  
 Accepted February, 28, 2007

## Appendix

### **Autocratic/Democratic Leadership Scale**

#### *Autocratic style:*

1. The leader directs the group with a rod iron (White & Lippitt, 1960).
2. All policies as regards group activities and procedures are determined by the leader (adapted from Lewin, 1939/1964 and White & Lippitt, 1960).
3. Techniques and activity steps are communicated by the leader (adapted from Lewin, 1939/1964; White & Lippitt, 1960).
4. The leader takes responsibility for assigning the activity tasks and companions of each group member (White & Lippitt, 1960).

#### *Democratic style:*

1. Policies are a matter of group decision and discussion with active encouragement and assistance by the leader (adapted from Eagly & Johnson, 1990, and Luthar, 1996).
2. The leader tries to be a regular group member (adapted from Lewin, 1939/1964; White & Lippitt, 1960).
3. The leader shares information with the group (adapted from Lewin, 1939/1964; White & Lippitt, 1960).
4. The leader tries to encourage that choices are made by group members (adapted from Lewin, 1939/1964; White & Lippitt, 1960).
5. Everyone is free to work with whomever he or she chooses, and the division or responsibility is left up to the group (adapted from Lewin, 1939/1964; White & Lippitt, 1960).

### **Task- vs. Relation-Oriented Leadership Scale**

#### *Task-oriented style:*

1. Plans in detail how to accomplish an important task or project
2. Provides a clear explanation of your responsibilities with regard to a task or project
3. Clearly explains what results are expected for a task or project
4. Determines what resources are needed to carry out a project
5. Determines how to organize and coordinate work activities to avoid delays, duplication of effort, and wasted resources

#### *Relation-oriented style:*

1. Provides encouragement and support when you have a difficult or stressful task
2. Backs you up and supports you in a difficult situation
3. Gives you credit for helpful ideas and suggestions
4. Consults with you to get your reactions and suggestions before making a decision that affects you
5. Provides opportunities to develop your skills and show what you can do