

The cultural generalizability of engaging leadership: Validation in the Romanian context

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Abstract

Engaging leadership is a managerial style that focuses on satisfying four basic psychological needs of followers (autonomy, relatedness, competence, and meaningfulness) and has been shown to be positively related to followers' engagement, commitment, and performance. Although the Engaging Leadership Scale has demonstrated sound psychometric properties in several national contexts (e.g., the Netherlands, Belgium, Indonesia, and Russia), evidence from culturally distinct and under-researched contexts remains limited. To advance cross-cultural leadership research, the present study examines the cultural generalizability of engaging leadership by testing the psychometric properties of the Engaging Leadership Scale in Romania, a post-communist, high power distance context. In Study 1 ($N = 1295$ employees), the scale had an appropriate internal consistency and the findings supported the factorial structure and the measurement invariance (configural, metric, and scalar invariance) of the scale across gender and generations. In Study 2 ($N = 803$ employees), the construct validity of the scale was supported by the positive relationship between perceived engaging leadership and followers' work engagement. Overall, the findings provide evidence for the cross-cultural applicability of engaging leadership. The implications for cross-cultural leadership theory and international leadership research are discussed.

Keywords

engaging leadership scale, Romanian, internal consistency, factorial structure, measurement invariance

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Introduction

Leadership is one of the most studied concepts in organizational psychology due to the impact it has on decision-making, team management, organizational culture, and the success of organizations in general (Gottfredson and Reina, 2020). Over time, multiple leadership frameworks have been proposed, each emphasizing different mechanisms through which leaders influence followers (Bormann and Rowold, 2018; Dinh et al., 2014). While these approaches have substantially advanced leadership research, they differ in the extent to which they explicitly address followers' basic psychological needs. To address this limitation, Schaufeli (2015) developed the concept of engaging leadership based on Self-Determination Theory (SDT; Deci and Ryan, 2000). This theory claims that individuals are motivated by the satisfaction of three psychological needs: the need for autonomy (the need to feel in control of one's own behaviours and goals), relatedness (the need to feel connected to others), and competence (the need to gain mastery of tasks and learn different skills). Beyond these three needs proposed by SDT, following the seminal work of Frankl (1946) and Baumeister (1991), Schaufeli (2015) also considered the basic psychological need for meaningfulness (the sense that one's job has purpose and significance). Therefore, this leadership style has four components, each oriented towards satisfying a basic psychological need of subordinates: empowering employees (satisfying their need for autonomy), connecting employees (satisfying the employees' need for relatedness), strengthening employees (which aims to satisfy the need for competence), and inspiring employees (satisfying their need for meaningfulness) (Nikolova et al., 2019; Van Tuin et al., 2020).

Schaufeli (2015) developed Engaging Leadership Scale in order to measure this style in a valid manner. In their paper on best practices for developing psychometric scales to measure leadership constructs, Crawford and Kelder (2019) recommended testing the psychometric properties of the new scales in countries with different cultures in order to evaluate the cultural generalizability of the scales. Until now, the scale has been successfully used in samples from The Netherlands, Belgium, Spain, Indonesia or Russia (Nikolova et al., 2019; Rahmadani et al., 2019; Robijn et al., 2020; Salas-Vallina et al., 2021). The purpose of this study is to test the cultural robustness of engaging leadership by examining whether the psychometric properties of the Engaging Leadership Scale hold in the Romanian context, a culturally and historically distinct setting. Compared to other countries, Romania's culture is characterized by (1) a higher power distance, where lower-power members readily accept unequal power distribution, (2) strong collectivism that emphasizes group loyalty and collective well-being, and (3) a pronounced tendency toward uncertainty avoidance, with a preference for avoiding unknown situations, risk, and uncertainty (Rountree, O'Keefe and Chadraba, 2014).

The current study has theoretical implications. In order to advance the knowledge related to engaging leadership, it is important to investigate whether this style of leadership has similar effects on organizations in different cultures. Previous criticism of SDT have focused on the fact that the theory may only be applied to Western cultures (e.g., the need for autonomy would not be so important in collectivist cultures, given that conformity is more valued in such a social context). However, cross-cultural studies indicated that managers' autonomy support is associated with followers' well-being in both individualistic (e.g. United States) and collectivist (e.g. Bulgaria) cultures (for a review, see Deci et al., 2017). The positive effects of meeting the psychological needs of employees by managers seem to be universal, regardless of culture. With valid measuring instruments, this issue can be further explored in countries with different cultures. Also, the effects of this leadership style may be influenced by cultural issues. For example, Rahmadani and Schaufeli (2020) showed that the link between engaging leadership and followers' work engagement in

moderated by *diuwongke*, an indigenous Indonesian concept that refers to the individuals' perception that they are being treated humanely, kindly, and with respect. Validating the measuring instrument in as many countries as possible will allow the exploration of such cultural differences in the relationship between leaders and subordinates.

From a practical perspective, the validation of the instrument for the Romanian culture could be useful in leadership development programs. The Engaging Leadership Scale can be used to measure managers' self-perceptions, the perceptions of subordinates or superiors on managers (through 360-degree feedback), or to evaluate the effectiveness of training programs that teach managers to pay attention to the basic needs of subordinates. [Hardré and Reeve \(2009\)](#) tested a training intervention in which managers were taught to use a more autonomy-supportive motivating style with positive results. Future studies may test the effectiveness of such interventions for developing a leadership style focused on all four psychological needs and the scale could be used to measure behavioural changes in managers.

Leadership in the Romanian context

Romania is an eastern European country that was under a communist regime until 1989, after which it suddenly switched to capitalism due to a revolution ([Zhu et al., 2015](#)). During this period, managers had an important role in society due to the importance placed on the nation's industrial development ([Sucala, 2015](#)). However, managers were not selected on the basis of competence, but on the basis of support from the political party in power ([Sucala, 2015](#)). The managers received an education in accordance with the communist ideology, which was based on a state-controlled economy (the strategies of the organizations, the jobs of the citizens, and the production needs were decided by the political power; [Constantin et al., 2006](#)). At the same time, during communism, social sciences were abolished ([Sucala, 2015](#)) and the psychological component of the managerial activity was completely ignored. Thus, older managers from Romania tend to use coercion, to retain the final decision, and to focus less on involving followers in decision-making ([Aioanei, 2006](#)). This management style has been described as centralized management ([Constantin et al., 2006](#)) or autocratic style ([Aioanei, 2006](#)).

After the fall of communism and integration into European Union, Romania was forced to align with the free and competitive capitalist economies ([Aioanei, 2006](#)). It was shifting from a centrally planned, communist economy to a free-market economy ([Fein et al., 2011](#)). However, many managers raised in the communist ideology remained in leadership positions by using an informal social network developed during communism and due to the lack of better alternatives ([Sucala, 2015](#)). At the same time, a new generation of managers has emerged, who were forced to adopt new leadership styles in order to deal with the problems they faced, especially the unstable economic climate, the lack of financial resources, the significant impact of labour unions, the absence of a market-oriented mind-set, and the anti-work mentality of employees ([Sucala, 2015](#)). In this economic and social context, managers needed to learn new leadership skills that would help them manage private capitalist companies. At the same time, the social sciences once again became part of the Romanian academic world, allowing the development of an internationally aligned organizational psychology in this country. In these circumstances, the organizational psychologists in Romania started to use the leadership concepts and psychometric instruments that were internationally recognized. Consequently, several leadership instruments have previously been adapted and used, supporting the relevance of validating contemporary leadership measures within this cultural setting.

Engaging leadership

Engaging leadership is conceptualised based on SDT (Van Den Broeck, Ferris, Chang and Rosen, 2016). The theory argues that managerial styles that support the satisfaction of followers' basic psychological needs can stimulate their motivation, well-being, and performance at work (Deci et al., 2017). These basic needs are the need for competence (defined as the need to develop new skills in order to get a sense of mastery over the environment), the need for belongingness (representing the need to belong to a group, to develop close relationships, and to feel a sense of communion with others), and the need for autonomy (representing the feeling of being free or a sense of ownership of own behaviour) (Van Den Broeck, Ferris, Chang and Rosen, 2016). Beyond these needs described by SDT, the engaging leadership framework also includes the need for meaningfulness, representing the need to work on significant and useful activities that are in line with personal values (Rahmadani et al., 2019). The rationale for introducing the need for meaning was that it is similar to the basic needs, is associated with well-being, and predicts well-being over the other established three basic needs (Rahmadani et al., 2019). Also, it was proposed as a basic psychological need by Frankl (1946) and Baumeister (1991).

Engaging leadership has four components, each focused on satisfying a basic psychological need (the three needs from SDT and the need for meaning): inspiring employees (which satisfies the need for meaning by communicating that followers are working on something important), connecting employees (which satisfies the need for belonging by encouraging collaboration and working towards common goals), strengthening employees (which satisfies the need for competence by developing subordinates' skills and encouraging them to use their strengths), and empowering employees (which satisfies the need for autonomy by offering freedom and encouraging personal contribution) (Nikolova et al., 2019; Van Tuin et al., 2020). As the theory suggests, engaging leadership is positively related with followers' work engagement (Robijn et al., 2020; Van Tuin, Schaufeli, & Van Den Broeck, 2021; Van Tuin, Schaufeli and Van Rhenen, 2020b). This association is mediated by increases in followers' psychological needs satisfaction (Robijn et al., 2020; Van Tuin, Schaufeli, & Van Den Broeck, 2021; Van Tuin, Schaufeli and Van Rhenen, 2020b).

Psychometric properties of Engaging Leadership Scale

This leadership style is measured with Engaging Leadership Scale. Previous studies have supported the internal consistency of the scale across multiple cultural contexts. The initial three-factor version showed high reliability in a Dutch sample (Nikolova et al., 2019), while adequate reliability for the overall scale was reported in samples from Belgium (Robijn et al., 2020), Indonesia (Rahmadani and Schaufeli, 2020; Rahmadani et al., 2020), and Russia (Rahmadani et al., 2019). However, in a Dutch sample, an item from the strengthening dimension was removed due to a factor loading below .70, after which the internal consistency of the overall scale remained satisfactory (Van Tuin, Schaufeli and Van Rhenen, 2020b). Studies examining the factorial structure of the Engaging Leadership Scale have reported mixed findings. Initial research supported a three-factor structure with acceptable model fit (Schaufeli, 2015), while subsequent studies including all four dimensions also confirmed the proposed structure (Rahmadani and Schaufeli, 2020). However, CFA results indicated low loadings for specific items from the strengthening dimension, leading to the removal of one item in a Dutch sample (Van Tuin, Schaufeli and Van Rhenen, 2020b). Similar issues were observed in Indonesian and Russian samples, albeit for different strengthening items, which the authors attributed to cultural differences and retained for theoretical reasons (Rahmadani et al., 2019).

Considering the cultural characteristics (i.e., high power distance, collectivism, and uncertainty avoidance) and the socio-political history of Romania, it is important to check if the Romanian version of the scale has psychometric properties similar to those of other countries with different cultures and history. Despite the Romanian cultural peculiarities presented previously, we expect the Romanian version of the scale to have similar properties to those of other countries. First, basic psychological needs are universal across cultures; for example, autonomy contributes to the well-being of individuals in countries with very different cultures, such as Russia, the United States, South Korea, Turkey, Belgium, China (Vansteenkiste et al., 2020) and managers' autonomy support is positively associated with the work engagement and well-being of employees in America and Bulgaria, two very different countries in terms of individualism-collectivism (Deci et al., 2017). Second, as previously mentioned, similar psychometric properties of the scale have already been highlighted in countries with different cultures, such as the Netherlands, Belgium, Indonesia, and Russia. Finally, existing studies support the fact that this leadership style has similar effects in different cultures. For example, in line with the expectations based on SDT, the satisfaction of followers' psychological needs is a mediator in the relationship between engaging leadership and followers' work engagement in countries with different cultures (Russia, South Africa, Netherlands) (Schaufeli, 2021). These results suggest the universality of behaviours aimed at satisfying followers' psychological needs by managers and, therefore, the cross-cultural validity of their measurement.

Few studies have examined the measurement invariance of the Engaging Leadership Scale. Measurement invariance was supported across two back-office departments within an international manufacturing organization (Van Tuin, Schaufeli, & Van Den Broeck, 2021). In another study, cross-national invariance between Indonesia and Russia was indirectly supported through multi-group analyses of a mediation model that included engaging leadership as a latent construct (Rahmadani et al., 2019). Considering the generational differences of the Romanian managers presented previously, it is important to investigate the measurement invariance of the scale across generations. In addition, there are two main reasons why it is necessary to analyse the measurement invariance for gender. First, there is a general concern in the literature regarding gender bias in the evaluation of leadership behaviours that could affect the validity of the measurements (Kaiser and Wallace, 2016). Second, certain studies suggest gender differences in terms of leadership styles; for example, women score higher than men on interaction facilitation (which describes behaviours similar to connecting employees from engaging leadership) (Gibson, 1995). By analysing gender invariance, we can test whether the differences between men and women are the result of real differences in leadership style or the result of different psychometric properties of the measurement instrument across gender.

The current study

The present study aims to contribute to cross-cultural leadership research by examining the psychometric properties of the Engaging Leadership Scale in the Romanian context, thereby testing the cultural generalizability of this leadership construct. As in previous studies, the internal consistency of the scale was tested. Given that the CFA was performed for only three factors in some previous studies and that some studies reported inadequate item loadings, we investigated the item loadings and the factorial structure of the scale for the four-factor model. In our study, the measurement invariance (configural, metric, and scalar invariance) was tested for gender and generations. Finally, the construct validity of the scale was tested by investigating the correlation between perceived engaging leadership and followers' work engagement.

Study I: Internal consistency, CFA, and measurement invariance

Method

Participants and procedure. A sample of 1295 employees from Romania completed the Romanian version of Engaging Leadership Scale. Of these, 720 (55.6%) were women and 575 (44.4%) were men. The average age of the sample was 37.96 ($SD = 10.72$); 177 (13.7%) were from Gen Z (18-24 years), 565 (43.6%) were millennials (25-40 years), 513 (39.6%) were from Gen X (41-56 years), and 40 (3.1%) were boomers (57-66 years). Participants had a work experience of an average of 15.16 years ($SD = 10.46$). The respondents were employed in the following sectors: agriculture, forestry, and fishery (.9%), manufacturing (5.6%), construction (6%), retail, wholesale, and repair (9.4%), hospitality (4.1%), banking, real estate, and financial services (8.3%), transportation, storage, and distribution (6.5%), commercial services (17.5%), public administration and governance (7.7%), education (9.4%), health care, social services, and law enforcement (11.8%), and arts, entertainment, recreation and sports (3.2%). The rest of the participants reported working in another sector (9.6%).

The data were gathered by a market research company to obtain a stratified sample based on gender, age, and region, aiming to achieve a representative sample of the Romanian employees. Participants received financial compensation for completing the questionnaire. Only participants who met the following three criteria were allowed to complete the questionnaire: the participants had to be at least 18 years old, they had to be employed, and they had to have a direct supervisor. The questionnaire was administered online. Completing the questionnaire took approximately 20 minutes. The study participants were part of a pre-recruited research panel, therefore they agreed in advance to complete the questionnaire in its entirety. Therefore, the response rate was 100%. Given that the data collection process enforced responses to all the items, there were no missing values. However, the participants could withdraw from the research at any time and stop completing the questionnaire. All members of this research panel completed the questionnaire. Participants were informed about the purpose of the study and they were assured of the confidentiality of their data. All ethical requirements for conducting the study were met. Data are available at <https://doi.org/10.17605/OSF.IO/A7MH8>.

Measure

Two organizational psychologists from Romania translated the Engaging Leadership Scale (Schaufeli, 2015) using the committee method. This approach was chosen in order to obtain a valid translation of the instrument in the Romanian language because it involves multiple experts, it allows for thorough discussion and resolution of discrepancies, leading to a consensus on the best wording, and it enhances the detection and correction of cultural nuances and context-specific meanings, improving the instrument's applicability across cultures. The 12 items are scored from 1 (never) to 5 (always) on a five-point rating system. The scale evaluates four different factors: strengthening leadership (e.g., "My supervisor encourages team members to develop their talents as much as possible."), connecting leadership (e.g., "My supervisor actively encourages team members to aim for the same goals."), empowering leadership (e.g., "My supervisor gives team members enough freedom and responsibility to complete their tasks."), and inspiring leadership (e.g., "My supervisor is able to enthuse team members with his/her plans."). Three items are used to measure each factor.

Statistical approach

First, the *Cronbach's alpha* for each of the four factors and the entire scale was calculated in order to assess the scale's reliability. Additionally, the zero-order correlations between the four factors and the scale's overall score were calculated to determine whether the scale factors target the same general construct. Second, we used the Mplus version 7 (Muthén and Muthén, 1988-2012) to perform a CFA in order to test the factor structure of the measure. The Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residuals (SRMR) were the metrics used to assess the model's fit. For CFI and TLI, values above .90 or .95 suggest a good fit of the model (Bentler, 1990); for SRMR and RMSEA, values below or equal to .08 are deemed appropriate (Hu and Bentler, 1999). We compared three alternative models: a first-order model with four factors loaded by three items each, a single-factor model with all the items loading on the same general factor, and a second-order model with a general factor loaded by the four components of engaging leadership which in turn were loaded by three items each.

Third, we tested for configural, metric, and scalar invariance using a multi-group CFA (Schmitt and Kuljanin, 2008) to investigate the measurement equivalency across gender. Prior to moving on to the examination of the three forms of invariance, we tested the fit indices for the men's and women's groups independently. According to Schmidt and Kuljanin (2008), configural invariance is the assumption that the factor structure is the same for both groups. It is evaluated by simultaneously estimating the same factor loading pattern for both groups (Cheung and Rensvold, 2000). Metric invariance, which is tested by contrasting an unconstrained model with a constrained model in which all factor loadings are constrained to equality for both groups, suggests that the factor loading of each item is the same for both groups (Schmitt and Kuljanin, 2008). According to Chen (2007), measurements are equivalent in term of metric invariance when $\Delta CFI > -.005$, $\Delta RMSEA < .010$, and $\Delta SRMR < .025$; a non-significant change in χ^2 is considered an indicator of equivalence (Little, 1997). The Satorra-Bentler scaled chi-square was utilized to test the chi-square difference (Satorra and Bentler, 2010). Finally, scalar invariance refers to the equivalence of the regression equations' intercepts of the observed variables on the latent ones across groups. Chen (2007) states that the indicators for measurement scalar invariance are $\Delta CFI > -.005$, $\Delta RMSEA < .010$, and $\Delta SRMR < .005$. In every invariance model, men were the reference group. To test the measurement invariance between generations, the same methodology has been applied.

Table 1. Descriptive Statistics, reliabilities, and correlations among factors (N = 1295).

| | M | SD | 1 | 2 | 3 | 4 | 5 |
|-----------------------------|------|------|--------|--------|--------|--------|-------|
| 1. Strengthening leadership | 3.69 | 1.08 | (.92) | | | | |
| 2. Connecting leadership | 3.75 | 1.17 | .86*** | (.85) | | | |
| 3. Empowering leadership | 3.69 | 1.14 | .82*** | .85*** | (.93) | | |
| 4. Inspiring leadership | 3.37 | 1.24 | .85*** | .83*** | .83*** | (.89) | |
| 5. Engaging leadership | 3.63 | 1.08 | .94*** | .94*** | .93*** | .94*** | (.97) |

Note. Cronbach's alpha reliabilities are in parentheses on the diagonal, ***p < .001.

Results

Descriptive Statistics, reliabilities, and correlations among factors

Table 1 shows the means, standard deviations, reliabilities, and zero-order correlations. The results indicated a high internal consistency for the scale factors and for the entire scale. We also found strong correlations between the scale factors.

Confirmatory factor analysis

The fit indices for the four factors measurement model ($\chi^2 = 374.79$, $df = 48$, $RMSEA = .07$, $CFI = .98$, $TLI = .97$, $SRMR = .02$) and for the second-order model ($\chi^2 = 452.94$, $df = 50$, $RMSEA = .08$, $CFI = .98$, $TLI = .97$, $SRMR = .02$) showed a very good fit with the data. These models fitted the data better than the model where all items loaded on a single factor model ($\chi^2 = 1010.56$, $df = 54$, $RMSEA = .12$, $CFI = .94$, $TLI = .93$, $SRMR = .03$). Result are presented in Table 2.

Measurement invariance across gender

Results indicated good fit with the data for both men ($\chi^2 = 246.49$, $df = 48$, $RMSEA = .08$, $CFI = .97$, $TLI = .96$, $SRMR = .02$) and women ($\chi^2 = 227.17$, $df = 48$, $RMSEA = .07$, $CFI = .98$, $TLI = .97$, $SRMR = .02$). Given that the values of the items were not normally distributed, the Robust Maximum Likelihood (MLR) estimation method was used for the factorial analysis because it adjusts the standard errors of parameter estimates. Our results indicated that the scale is equivalent between genders. Fit indices and indicators of equivalence are presented in Table 3.

Measurement invariance across generations

Based on the recommendations of Meade and Kroustalis (2006), every group included in the measurement invariance analysis should contains at least 200 participants for an adequate power. Therefore, only two generations were compared: millennials (565 participants) and Gen X (513 participants). Results indicated good fit with the data for both millennials ($\chi^2 = 170.47$, $df = 48$, $RMSEA = .07$, $CFI = .98$, $TLI = .98$, $SRMR = .02$) and Gen X ($\chi^2 = 218.82$, $df = 48$, $RMSEA = .08$, $CFI = .98$, $TLI = .97$, $SRMR = .02$). Our results indicated that the scale is equivalent between millennials and Gen X. Fit indices and indicators of equivalence are depicted in Table 4.

Table 2. Confirmatory factor analysis for engaging leadership scale ($N = 1295$).

| | χ^2 | df | RMSEA | CFI | TLI | SRMR |
|----------------------------|----------|----|-------|-----|-----|------|
| First-order 1-factor model | 1010.56 | 54 | .12 | .94 | .93 | .03 |
| First-order 4-factor model | 374.79 | 48 | .07 | .98 | .97 | .02 |
| Second-order model | 452.94 | 50 | .08 | .98 | .97 | .02 |

Note. χ^2 = chi-square; df: degrees of freedom; CFI: Comparative Fit Index; TLI: Tucker Lewis Index; RMSEA: Root Mean Square Error of Approximation.

Table 3. Measurement invariance across gender ($N = 1295$).

| | χ^2 | df | RMSEA | CFI | TLI | SRMR | $\Delta \chi^2$ | Δ RMSEA | Δ CFI | Δ SRMR |
|-----------------------|----------|-----|-------|------|------|------|---------------------|----------------|--------------|---------------|
| Configural invariance | 249.63 | 96 | .050 | .981 | .974 | .023 | - | - | - | - |
| Metric invariance | 279.66 | 108 | .050 | .979 | .974 | .036 | 30.03 ^{ns} | .000 | -.002 | .013 |
| Scalar invariance | 295.79 | 112 | .050 | .977 | .973 | .041 | 15.13 ^{ns} | .000 | -.002 | .005 |

Note. χ^2 = chi-square; df: degrees of freedom; RMSEA: Root Mean Square Error of Approximation; CFI: Comparative Fit Index; TLI: Tucker Lewis Index; SRMR: Standardized Root Mean Squared; Δ RMSEA: Root Mean Square Error of Approximation difference; Δ CFI: Comparative Fit Index difference; Δ SRMR: Standardized Root Mean Squared difference; ns: not significant.

Study 2: Construct validity

Participants and procedure

803 employees from Romania (50.6% men, average age of the sample = 40.17 years, $SD = 8.94$) completed the Romanian versions of Engaging Leadership Scale and Utrecht Work Engagement Scale - Short Version (UWES-9). Participants had a work experience of an average of 16.67 years ($SD = 9.47$). The respondents were employed in the following sectors: agriculture, forestry, and fishery (1%), manufacturing (6.5%), construction (8%), retail, wholesale, and repair (10.5%), hospitality (3.5%), banking, real estate, and financial services (6.4%), transportation, storage, and distribution (8%), commercial services (14.9%), public administration and governance (8.7%), education (10.7%), health care, social services, and law enforcement (7.7%), and arts, entertainment, recreation and sports (2%). The rest of the participants reported working in another sector (12.20%). The data collection procedure was the same as in Study 1. The participants reported the perceived level of engaging leadership of their direct supervisors and their own level of work engagement.

Measures

The participants completed the Engaging Leadership Scale described in Study one and the Romanian version of Utrecht Work Engagement Scale - Short Version (UWES-9) (Schaufeli et al., 2006; Vîrgă et al., 2015). The latter consists of nine items on a scale from 1 (never) to 7 (always) and measures the three components of work engagement: vigor (e.g., “*At my job, I feel strong and vigorous.*”), dedication (e.g., “*My job inspires me.*”), and absorption (e.g., “*I feel happy when I am working intensely.*”).

Table 4. Measurement invariance across generations ($N = 1078$).

| | χ^2 | df | RMSEA | CFI | TLI | SRMR | $\Delta \chi^2$ | Δ RMSEA | Δ CFI | Δ SRMR |
|-----------------------|----------|-----|-------|------|------|------|---------------------|----------------|--------------|---------------|
| Configural invariance | 206.89 | 96 | .046 | .984 | .978 | .022 | - | - | - | - |
| Metric invariance | 225.94 | 108 | .045 | .983 | .979 | .029 | 19.05 ^{ns} | -.001 | -.001 | .007 |
| Scalar invariance | 239.51 | 112 | .046 | .982 | .978 | .032 | 13.57 ^{ns} | .001 | -.001 | .003 |

Note. χ^2 = chi-square; df: degrees of freedom; RMSEA: Root Mean Square Error of Approximation; CFI: Comparative Fit Index; TLI: Tucker Lewis Index; SRMR: Standardized Root Mean Squared; Δ RMSEA: Root Mean Square Error of Approximation difference; Δ CFI: Comparative Fit Index difference; Δ SRMR: Standardized Root Mean Squared difference; ns: not significant.

Statistical approach

In line with SDT (Van Den Broeck, Ferris, Chang and Rosen, 2016) and the theoretical assumptions underlying the concept of engaging leadership (Nikolova et al., 2019; Van Tuin et al., 2020), we tested the construct validity of the Engaging Leadership Scale through the zero-order correlations between the perceived level of engaging leadership of managers (assessed by subordinates) and work engagement of subordinates. Data were analysed using Mplus version 7 (Muthén and Muthén, 1988-2012). The high correlations between engaging leadership and followers' work engagement suggest that the instrument measures what it set out to measure.

Results

We found high correlations between engaging leadership perception (and all four of its components) and followers' work engagement. Results are presented in Table 5. These results are in line with theoretical expectations and suggest that the instrument does indeed measure a leadership style associated with subordinates' work engagement, as we would expect if this leadership style would satisfy the followers' four psychological needs and stimulate their intrinsic motivation.

Discussion

The purpose of this research was to examine the cultural generalizability of engaging leadership by investigating the psychometric properties of the Engaging Leadership Scale in the Romanian context. The study contributes to cross-cultural leadership research by testing the robustness of this construct in a culturally distinct setting. The four components of engaging leadership had strong correlations between them, indicating a strong common variation between factors, even if they target different psychological needs. Also, the four factors had very high correlations with the global score of the scale. This result supports the inclusion of the four components in a single broader construct. Also, in line with previous data, Cronbach's alpha reliabilities were very good for the four components and the general factor. The subscales and the global scale had high internal consistency on a Dutch sample (Nikolova et al., 2019), on a sample from Belgium (Robijn et al., 2020), on samples from Indonesia (Rahmadani et al., 2020; Rahmadani and Schaufeli, 2020), and a sample from Russia (Rahmadani et al., 2019), suggesting that the internal structure of the scale is stable across diverse cultural contexts.

The factorial structure of the scale was also supported by our findings. The fit indices supported the four factors, each centered on a distinct psychological need, as components of the scale: inspiring

Table 5. Correlations between perceived engaging leadership and followers' work engagement ($N = 803$).

| | M | SD | 1 | 2 | 3 | 4 | 5 | 6 |
|---------------------------------------|------|------|--------|--------|--------|--------|--------|-------|
| 1. Perceived strengthening leadership | 3.70 | 1.10 | (.87) | | | | | |
| 2. Perceived connecting leadership | 3.70 | 1.18 | .88*** | (.94) | | | | |
| 3. Perceived empowering leadership | 3.61 | 1.16 | .87*** | .88*** | (.93) | | | |
| 4. Perceived inspiring leadership | 3.43 | 1.23 | .87*** | .88*** | .90*** | (.93) | | |
| 5. Perceived engaging leadership | 3.61 | 1.11 | .95*** | .96*** | .96*** | .96*** | (.97) | |
| 6. Followers' work engagement | 4.79 | 1.41 | .51*** | .47*** | .48*** | .51*** | .51*** | (.96) |

Note. Cronbach's alpha reliabilities are in parentheses on the diagonal, *** $p < .001$.

employees, connecting employees, strengthening employees, and empowering employees. This factorial structure also emerged in studies on samples from other countries (Rahmadani and Schaufeli, 2020). However, in previous studies, two items from the strengthening factor had low loadings: the item about delegation of tasks and responsibilities for the Russian sample and the item about encouraging the use of strengths for the Indonesian sample (Rahmadani et al., 2019; Van Tuin et al., 2020b). The researchers explained these differences in loadings based on cultural particularities. The fact that all items performed adequately in the Romanian sample provides additional evidence for the cultural robustness of the scale. Our results supported the measurement invariance of the scale across gender and across generations. Therefore, the scores on the Engaging Leadership Scale can be used to make valid comparisons between individuals of different genders and generations. In the existing literature, only one study took measurement invariance into account (Van Tuin et al., 2021), in that research measurement equivalence between different departments was supported (between a supply chain department and an enterprise information department). The present study extends this line of work by demonstrating invariance across key demographic groups in a culturally distinct national context.

Finally, the construct validity of the Romanian version of the scale is supported by the positive correlation between engaging leadership and followers' work engagement. SDT suggests that managers' engaging leadership style will lead to subordinates' higher levels of work engagement because they will satisfy employees' basic psychological needs and, therefore, they will stimulate their intrinsic motivation (Nikolova et al., 2019; Van Tuin et al., 2020). Indeed, the positive link between engaging leadership and followers' work engagement was highlighted in previous studies (Robijn et al., 2020; Van Tuin, Schaufeli, & Van Den Broeck, 2021; Van Tuin, Schaufeli and Van Rhenen, 2020b). Also, the mediating role of followers' psychological needs satisfaction in the relationship between engaging leadership style and subordinates' engagement was supported in past research (Robijn et al., 2020; Van Tuin, Schaufeli, & Van Den Broeck, 2021; Van Tuin, Schaufeli and Van Rhenen, 2020b). Taken together, these findings suggest that both the measurement and theoretical assumptions underlying engaging leadership are applicable beyond the cultural contexts in which the scale was originally developed. Overall, the results provide further support for the cross-cultural applicability of the Engaging Leadership Scale.

Theoretical and practical implications

Our results have both theoretical and practical implications. First of all, the results provide additional evidence for the cultural generalizability of engaging leadership by showing that its measurement and internal structure remain stable in a culturally distinct context. Secondly, the validation of the instrument in several languages can lead to comparative analyzes regarding this leadership style in different cultures. For example, in Indonesia, the relationship between engaging leadership and followers' work engagement is influenced by a social phenomenon ('diowungke') specific to the culture of employees in this country (Rahmadani and Schaufeli, 2020). Considering the recent history of Romania and the way it has changed its managerial culture, it is interesting to study whether there are other social factors that influence the effects of this leadership style. As already stated, there have been questions in the past regarding the cultural generalizability of the three basic psychological needs from SDT (e.g., if the need for autonomy is equally important in individualist vs collectivist cultures). Later, studies conducted in different countries such as Russia, the United States, South Korea, Turkey, Belgium, China, and Bulgaria highlighted that satisfying the need for autonomy is important for the well-being of employees regardless of culture (Deci et al., 2017; Vansteenkiste et al., 2020). By studying engaging leadership in different contexts, it is possible to

analyse the importance of satisfying the other three psychological needs in different countries and cultures. Considering that Romania went through a period of transition from a communist economy to a capitalist one, with very different management approaches (Aioanei, 2006), studying the effects of engaging leadership in Romanian organizations could reveal interesting conclusions.

Thirdly, the validated scale can be used to test explanatory mechanisms and boundary conditions in cross-cultural leadership research. For example, in one study (Rahmadani et al., 2019), meaningful work was a mediator in the relationship between engaging leadership and followers' engagement for employees from Indonesia, but not for employees from Russia. Considering that the scale is validated in several languages, it can be used to identify specific mediators for different cultures. As presented earlier, in a study on Indonesian employees, '*diuwongke*' (a construct specific to Indonesian culture) moderated the relationship between engaging leadership and followers' engagement (Rahmadani and Schaufeli, 2020). Similar culturally specific moderators could be identified for other countries.

The present study has two important practical implications. First, the new instrument can be used in leadership development programs to evaluate managers' behaviors. Subordinates can fill out the Engaging Leadership Scale in order to evaluate their supervisors regarding their orientation towards satisfying the four basic psychological needs. Moreover, the instrument could be used for 360 evaluations, in which managers evaluate their own behaviors and the responses are compared with the perceptions of others (colleagues, subordinates, etc.). In this way, leaders can observe the discrepancies between their own perceptions and the evaluations of others. These leadership development programs could help Romanian managers to adopt more suitable managerial styles for organizations operating in a free and competitive market, which function differently from the organizations of the communist regime (Sucala, 2015). Second, the scale can be used to test the effectiveness of leadership development interventions, such as training, coaching or mentoring programs. An intervention to increase engaging leadership among managers has already been tested, with positive results regarding the improvement of business performance indicators and the reduction of absenteeism (Van Tuin, Schaufeli, Van Rhenen and Kuiper, 2020). In research on leadership development, the most studied component of engaging leadership is empowering employees; a meta-analysis showed that individuals can be taught through psychological interventions to support the autonomy of others (Su and Reeve, 2011). The other components of engaging leadership were not taken into account in previous interventions. Therefore, future studies can systematically assess the effectiveness of leadership development programs targeting all the components of engaging leadership across different organizational and cultural contexts.

Limitations and future research

The current study has a number of limitations that could be addressed in future research. First, we evaluated the psychometric properties of the scale when subordinates reported on their managers' behaviours. Future studies could consider self-assessments by managers in order to test if the scale retains its psychometric properties in self-report form. Thus, companies will be able to make 360 evaluations of managers, comparing their self-evaluations with the perceptions of subordinates. Secondly, until now no diary studies have been done with this scale. Previous studies shown that leadership-related phenomena can fluctuate over short time intervals (e.g., from 1 day to another, from 1 week to another) (Breevaart et al., 2014). Future studies could use a modified form of the scale, by which to measure the fluctuation of engaging leadership over short periods of time and the impact it has on the organizational outcomes. Finally, future studies could test the predictive validity of the scale. Previous research has highlighted a number of consequences of this leadership style,

such as followers' work engagement, job crafting, and job performance (Mäkikangas et al., 2017; Rahmadani et al., 2019, 2020). In future studies, the predictive validity of the scales can be tested with other outcomes, such as followers' organizational commitment, organizational citizenship behavior, and counterproductive work behavior.

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Ethical considerations

All procedures performed in the study were in accordance with the ethical standards of the institutional and national research committee.

Consent to participate

Informed consent was obtained from all individual participants involved in the study.

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Data Availability Statement

The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

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