The mediating role of principals’ transformational leadership behaviors in promoting teachers’ emotional wellness at work: A study in Israeli primary schools

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Abstract
The present study aims to examine whether principals' emotional intelligence (specifically, their ability to recognize emotions in others) makes them more effective transformational leaders, measured by the reframing of teachers’ emotions. The study uses multisource data from principals and their teachers in 69 randomly sampled primary schools. Principals undertook a performance task to allow assessment of their emotion recognition ability; half the teachers' sample (N=319) reported on principals' leadership behaviors and the other half (N=320) on teachers' subjective perceptions of principals as promoting teachers' reframing of negative emotions into more positive ones. Data were analyzed through multilevel structural equation modeling. Findings indicated a cross-level relationship between principals' transformational leadership behaviors and teachers’ emotional reframing, as well as a relationship between principals' emotion recognition ability and their transformational behaviors. Furthermore, the study revealed that principals' emotion recognition ability has an indirect effect on teachers' emotional reframing through principals' transformational leadership behaviors. The results provide empirical support for the claim that transformational leadership promotes emotional transformation. The theoretical and practical implications of the study are discussed.

Keywords
Emotional recognition, emotion reframing, emotions, transformational leadership

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Introduction

For many years, the Israeli education system has consisted of a small and highly centralized bureaucracy, with tightly controlled goals, budgets, curriculum, personnel, and evaluation of outputs (Nir & Inbar, 2003). This was especially true of the primary school level (Gibton, 2011). In time, local and global factors, such as high birth rate, the popularity of neoliberal ideology, and economic competition pressured the Israeli education system to change its governance model to a more decentralized one (Bogler & Nir, 2014; Feniger et al., 2012; Ichilov, 2009). In the last decade, Israeli policymakers suggested and implemented several key systemic reforms, combining elements of decentralization, accountability, and competition in the hope of improving the system (Berkovich, 2014; Ichilov, 2009). Reforms of this type, affecting multiple aspects of the system, are known to stimulate negative emotions in teachers (Blakemore, 1996).

Emotions play a key role in performance (Sutton and Wheatley, 2003; Sutton et al., 2009), and therefore leaders are called to focus much attention on employees' negative emotions, because their support can enhance subordinates' positive moods (Rhoades and Eisenberger, 2002; Witt, 1991). Specifically, in relation to leaders of school, the educational literature attests to frequent attempt of principals to support teachers emotionally (Littrell et al., 1994) and to manage their emotions (Beatty and Brew, 2004; Crawford, 2007; Hanhimäki and Tirri, 2009). It has been shown that in the last decade school principals in Israel have regularly used transformational behaviors (Eyal and Kark, 2004; Eyal and Roth, 2011). These behaviors can be viewed as a strategy intended to manage teachers' negative emotions, and they are at times perceived to be related to emotion management (Daus & Ashkanasy, 2005).

Nevertheless, there is a dearth of research on how leaders' emotional capabilities affect school leaders' behaviors, and in turn how these behaviors affect the teachers' emotional processes (Cliffe, 2011). Despite claims that the identification of subordinates' emotions triggers leaders' transformational behaviors, which in turn alter subordinates' negative feelings (Daus and Ashkanasy, 2005), a mediation model outlining these associations has yet to be empirically explored. The reason for such a model not having been explored yet may have to do with the axiomatic assumption that transformational leadership is indicative of change in subordinates' emotional meaning (Ashforth and Humphrey, 1995; Bass, 1996; Popper, 2005; Shamir, 1995). Such an outcome of interpersonal emotional influence in organizations has been
termed emotional reframing (Ashforth and Kreiner, 2002). We argue that there is value in accounting separately for leaders' transformational behaviors and subordinates' emotional reframing.

Emotional reframing is a cognitive experience involving one’s reinterpretation of an emotional stimulus as a result of another person's behavior, in a way that changes the negative emotional effect of the stimulus (Ashforth and Kreiner, 2002; Williams, 2007). The experience of emotional change in interpersonal relations is extremely important because it is believed to indicate success in promoting one's self-clarity and resolving one's identity tensions (Rogers and Farson, 1957), therefore it is metaphorically an emotional "eureka" experience that can be valuable for promoting teachers' well-being.

To address the role of educational leadership in managing teachers' emotions, the present study examines whether transformational behaviors mediate the relationship between principals' emotion recognition ability and teachers' experience of emotional reframing. Based on the review of the relevant psychological and organizational literature, we outline a multilevel model linking principals’ emotion recognition ability with teachers’ experience of emotional reframing by principal through principals' transformational leadership behaviors.

**Theoretical framework and hypotheses**
Hallinger (1992) identified three roles played by principals: those of program manager, instructional leader, and transformational leader. He regarded these emphases in the principal’s role to be linked with the local context and national policies. Leithwood (1994) expanded on this point and argued that transformational school leadership is the most fitting model in the complex modern policy environment, in which school restructuring initiatives are frequent, and considering the challenges involved in the transition to 21st century schooling. Because of its relevance to the contemporary challenges that principals face, transformational leadership theory was quickly embraced as an ideal model for school management. At present, it is one of the most popular leadership theories in the field of education administration (Bush, 2014). Transformational leadership is defined by the ability of a leader to motivate followers to transcend their own personal goals for the greater good of the organization (Bass, 1996). Empirical research indicates that transformational leadership is linked with greater teacher motivation, commitment, and effort (Eyal
Reviews synthesizing evidence about transformational school leadership show that transformational behaviors have significant effects on promoting organizational effectiveness and student outcomes (Leithwood and Jantzi, 2005; Leithwood and Sun, 2012). In a somewhat related manner, Leithwood, Harris, and Hopkins (2008) reviewed works on successful school leadership and argued that the evidence indicates that leaders' practices affect teachers' emotions, which in turn shape teachers' motivations at work; therefore, leaders indirectly promote students' learning. Despite this conclusion, our understanding of how school leaders use transformational behaviors and how these behaviors affect teachers' emotional wellness is limited. To expand our knowledge on these issues, we focus in this paper on the leaders' ability to recognize emotions in others as stimulating transformational behaviors, which in turn affect teachers' emotional reframing. Symbolically speaking, emotional reframing involves teachers experiencing principals as turning teachers' "frowns upside down," thereby advancing their emotional wellness.

**Principals' transformational leadership as promoting teachers' emotional reframing**

The transformational behaviors of leaders of schools cause teachers to transcend their self-interest and act beyond formal role expectations (Leithwood and Jantzi, 2000). Such leadership style includes behaviors expressing a compelling vision, embodying an ethical model, encouraging subordinates to challenge work assumptions, and addressing subordinates personally (Bass and Avolio, 1994). It has been suggested that the ability to transform subordinates' emotions distinguishes transformational leaders from non-transformational ones (Ashforth and Humphrey, 1995; Bass, 1996; Popper, 2005; Shamir, 1995). In light of claims that transformational leaders intervene in subordinates' emotions and attempt to alter them, it is understandable that transformational leadership is associated with subordinates' positive emotions (Erez et al., 2008).

Scholars have suggested that most current organizational and leadership theories are based on modernistic assumptions that value and pursue progress (Sackney and Mitchell, 2002). Against this background, the interest of transformational leadership theory in promoting change (Chiaburu et al., 2014) can be viewed as part of the zeitgeist. Transformational leadership is also a positive leadership theory because it contains ethical components (Walumbwa and Wernsing,
2012), and it has been claimed to produce positive emotions, such as hope, among followers (Walker, 2006). The theory conceptualizes the ethicality of transformational leaders as deontological in nature, as the leaders’ intentions are said to be aimed at promoting the interests of both individual followers and those of the organization (Bass, 1996; Bass & Steidlmeier, 1999). Prior research, drawing on Lawrence Kohlberg's moral theory, confirms the claim that transformational leaders tend to use deontological ethical judgments. Turner, Barling, Epitropaki, Butcher, and Milner (2002) found that leaders who were ranked by followers as more transformational, self-reported using more postconventional moral reasoning, which is committed to universal principles of justice, equality, and respect. At the same time, examining transformational leaders from a teleological perspective, focusing on the consequences of their actions, may produce a less definite conclusion about their ethicality. For example, Dasborough (2006) found that employees found leaders' behaviors that are equivalent to transformational behaviors to also cause negative emotions such as anger, frustration, and even fear. Whether this is a side effect of leaders' actions or it is caused intentionally by them, as in the case of emotional manipulation, has not been explored yet. The consequences of transformational behaviors have not been studied from an ethical point of view, because the mainstream leadership literature assumes that transformative leadership is ethical by definition. The critical assessment of transformational leadership theory, however, and its positivistic views about leaders' ethics are beyond the scope of the present paper. Therefore, in the present work we focus on how transformational leadership promotes positive emotional change in followers.

Some theoretical arguments describing the experience of emotional transformation in supervisor-subordinate relations may be relevant to shedding light on the link between supervisors' behaviors and subordinates' positive emotions. Ashforth and Kreiner (2002) argued that in organizational settings, symbolic metaphors and emphasis on professional ideology or social identification may be used to alter the perception of an emotional stimulus and thus reframe negative emotions into more positive ones. The descriptions of these behaviors as promoting emotional reframing coincide with accounts of transformational leadership behaviors (Bass and Avolio, 1994). Furthermore, Küpers and Weibler (2006) explicitly addressed this issue when they attempted to answer the question of “how emotional is transformational leadership really?” (368). The authors theorized that
transformational leadership can motivate subordinates to reinterpret negative emotions in a more positive way by providing subordinates with a different outlook on situations and by supporting and encouraging them.

A similar relation between transformational leadership on one hand and subordinates' emotional change and positive emotions on the other is described in the educational literature. Transformational educational leadership is described as having an emotional base (Slater, 2005) and instilling hope in people (Walker, 2006). These claims have some empirical support. For example, principals' individual consideration behaviors, which are part of the transformational leadership style, have been found to predict teachers' feeling of being energized by teaching (Geijssel et al., 2003). Similarly, Cherkowski (2012) found that principal’s compassionate and caring behaviors, often associated with individual consideration behaviors, affect teachers’ passion for their job. Furthermore, Brackett et al. (2010) found that principals' supportive behaviors were positively associated with teachers' job satisfaction. The link between principals' behaviors and transformation of teachers' cognitions may find support also in some indirect findings. For example, Sinden et al. (2004) found that the principals assist teachers to expand their perspectives on events by suggesting other viewpoints. In the same vein, Hanhimäki and Tirri (2009) reported that some principals help teachers in ethically complex situations overcome their negative emotions by encouraging them to adopt a positive outlook on events. Based on these theoretical arguments, we hypothesize:

Hypothesis 1: Principals’ transformational leadership behaviors are positively related to teachers' experience of emotional reframing by principals.

Principals’ emotion recognition ability as an antecedent of transformational leadership

In recent years, research attention has been devoted to leaders' emotional intelligence (i.e., their emotional abilities) and its relation to their transformational behaviors. The empirical results about the connection between leaders' emotional abilities and their transformational behaviors vary from weak to strong as a result of different conceptualizations and measurement methods (Harms and Credé, 2010). To sidestep the scholarly debate on these issues, we followed the observation made in a recent review of the literature on leadership and emotions, that focusing on specific emotional capabilities, which are treated independently in the literature, separate from
the emotional intelligence literature, can be productive (Gooty et al., 2010: 994). In
the present work we therefore focus on leaders' emotion recognition ability. The
literature suggests that one's ability to recognize emotion in others is crucial for
successful social functioning (Rubin et al., 2005). Emotion recognition ability is
defined as an abstract cognitive skill, in which observation, memory, and previous
knowledge are combined to produce insights about the thoughts and emotions of other
individuals (Ickes, 1997). In social situations, the ability to decode others’ emotions is
influenced by one's motivation to decode, but because this motivation is context-
specific (Ickes and Simpson, 2008), it is outside the scope of the present paper, which
focuses on the emotion recognition as trans-context characteristic. It has been noted
that the ability to recognize other people's emotions is particularly important for
leaders (Yukl, 1998).

Several studies have claimed that leaders' emotion recognition ability is a key
antecedent of transformational leadership behaviors (Ashkanasy and Tse, 2000).
Davis (1996) argued that one's empathic ability influences one's relationship-oriented
behaviors, so that recognition of emotion in others may be linked to one's deliberate
and conscious behavioral attempt to affect the emotions of others (Yoo et al., 2006).
Supporting this claim are findings that individuals who have a stronger aptitude for
decoding others' fears are more willing to help others (Batson et al., 1997), and that
one's emotional insights are related to one's affective empathy toward others and to
one's tendency to behave prosocially (Roberts and Strayer, 1996). Similarly, the
literature has shown that emotion recognition ability is linked behaviors of
transformational leaders, who succeed in supporting their subordinates (Riggio and
Reichard, 2008). This finding is supported by additional research. Skinner and
Spurgeon (2005) found that health managers' self-assessed empathic ability predicts
their transformational leadership behaviors. Similarly, Rubin and colleagues (Rubin et
al., 2005) uncovered that leaders' emotion recognition ability, assessed in a
performance-based measure utilizing photographs of faces, is positively related to
transformational leadership behaviors.

Some studies have reported on the relationships between principals' emotion
recognition ability and their supportive engagement with teachers. For example, using
interviews to study the emotional intelligence of principals, Cliffe (2011) found that
head teachers acknowledged the significance of the ability to recognize emotions in
others for their success in handling charged situations. Slater (2005) found that
assistant principals, teachers, and parents acknowledge the importance of leaders’
emphatic abilities for successful school leadership. Finally, Lussiez (2009) found that
principals’ empathy is positively related with transformational leadership behaviors.
Thus, we hypothesize:

Hypothesis 2: Principals’ emotion recognition ability is positively related to
principals' transformational leadership behaviors.

Transformational leadership as mediator of the relationship between emotion
recognition ability and teachers' emotional reframing

The present study seeks to examine the mediating role of transformational leadership
behaviors in the relationship between principals' emotion recognition ability and
subordinates’ experience of emotional reframing. Theoretical works link one's
emotion recognition ability (specifically or as part of a set of emotional abilities) to
another person's positive emotions (Lopes et al., 2004; Rubin et al., 2005), but
empirical works show that one's emotional abilities are not associated directly with
another's person affect (Brackett et al., 2005; Zeidner and Kaluda, 2008). Therefore, a
more indirect explanation of this association seems more relevant.

A mediation model of this type can be found in the conceptualization of the
empathic process (Van Strien, 1999). It has been suggested that one's cognitive
empathy (i.e., the empathizer’s ability to analyze the emotions of another person) is
linked with one's expressed empathy (i.e., the empathizer’s behaviorally expressed
empathy), which in turn leads the empathizee to experience the received empathy (i.e.,
the empathizee accepts the actions as caring). An equivalent explanation of mediation
seems consistent with claims in the organizational and transformational leadership
literatures. For example, Ashkanasy and Tse (2000) theorized that higher emotion-
based abilities, among other emotion recognition abilities that enable leaders to
understand others’ emotions, are antecedents of transformational leadership. Similarly,
Kaplan et al. (2014) have suggested that leaders' emotion recognition skills are an
antecedent of their emotion management behaviors (such as consideration and ethical
conduct) that closely relate to transformational behaviors. Transformational behaviors
are described as associated with alleviating subordinates’ fears (Davidhizar and
Shearer, 1997; Popper and Mayseless, 2003). This effect is analogous to Williams’s
(2007) suggestion that behaviors that redefine elements in the situation and formulate
an alternative plausible narrative may be effective in reducing one's sense of threat
and fear because they encourage reframing of emotions. The behaviors Williams
describes are to some extent equivalent to intellectual stimulation behaviors that
compose transformational leadership. Despite the literature reviewed above, an
integrative model of these associations has not been empirically explored to date.

Parallel claims concerning the effect of leaders' emotional abilities on teachers'
emotional experiences, mediated by the leaders' behaviors, have been made in the
educational literature as well. Educational leaders' ability to recognize emotions in
others was reported by head teachers as being related to their supportive and
relationship-oriented behaviors and to their influence on others' emotional experiences
(Cliffe, 2011). Relationship-oriented and caring behaviors, such as those that,
according to Cliffe (2011), have a mediator role, were found to characterize
extraordinary transformational leaders in education (Kirby et al., 1992). It has also
been suggested that school leaders help teachers perceive situations in a new light that
transforms their emotions and behaviors (Hoy and Sweetland, 2001; Fullan, 2003);
such school leaders are perceived by teachers as altering their emotional experiences
(Hanhimäki and Tirri, 2009). Thus, we hypothesize:

Hypothesis 3: Principals’ transformational leadership behaviors mediate the
relationship between principals' emotion recognition ability and
teachers’ emotional reframing.

**Method**

*Sample and procedure*

The study is based on multisource data collected in 69 Israeli primary state schools
that were randomly sampled from a list provided by the Ministry of Education (64% 
recruitment rate out of 107 schools contacted). Principals and teachers were
approached and asked to participate on a voluntary basis (no incentives were used to
motivate participation). Response rates were 100% for principals, and 79% for
teachers. Principals had at least two years of seniority in their positions. Of the 69
participating school principals 51 were female (74%), a close representation of the
80% female principals in the Israeli primary system (Mizrahi, 2010). The average age
of the principals was 51.09 years (SD = 6.91), and their average tenure was 11.62
years (SD = 5.95). In addition, 639 teachers participated in the study, on average 9.5
teachers (SD = 2.27) per school. Most of the teachers were female (92%), a ratio
similar to the one found in the national system (CBS, 2013). The average age of the
teachers was 41.62 years ($SD = 10.20$), and their average teaching experience was 16.82 years ($SD = 9.70$). Informed consent was obtained from participants and anonymity was guaranteed. Researchers assured participants that data would not be shared with anyone outside the research staff, that they would be used only for scientific purposes, and that their analysis and publication would be done in a manner that the identities of the participants and schools would not be revealed.

Principals completed an emotion recognition video task based on the empathic accuracy paradigm (Ickes, 1993). Following recommendations to split the sample when exploring multilevel relationships in order to reduce the effect of common method variance associated with self-report on the relationships (Ostroff et al., 2002; Rousseau, 1985), participating teachers in each school were divided into two groups. The split sample method has been proven to be effective in reducing parameter bias (Lai et al., 2013). Teacher surveys were administered in a pen-and-paper format. Group A teachers ($N = 319$) reported on their principals’ transformational leadership behaviors (at the group level), whereas Group B teachers ($N = 320$) completed self-report surveys about emotional reframing by their principal. No significant differences were found in background variables between groups.

Measures

Emotion recognition ability. To compare the emotion recognition abilities of principals, a videotape recording-based methodology was used, known as empathic accuracy (Ickes, 1993). Empathic accuracy is considered to be a more realistic challenge than emotion recognition of facial expressions in still photographs because it requires participants to monitor and interpret verbal and non-verbal behaviors of the target, to reflect on the new information in an integrative way, and to follow the development of the context in order to infer the precise emotional meaning (Ickes, 1997).

The application of the empathic accuracy method in the present study to assess the emotion recognition abilities of principals was similar to the one by Barone et al. (2005). In preparation for the present study, we videotaped a one-on-one 7-minute real-life conversation between a female principal and a female teacher. The discussion focused on the teacher's professional disagreement with a colleague, which was brought to the principal's attention by the colleague. The conversation was recorded in such a manner that from the videotaped material we could produce a video clip
showing only the teacher in the frame. Immediately after the conversion was recorded, the teacher was asked to watch herself and write down the emotions she experienced during the conversation. Subsequently, using video editing software, the video was divided into nine clips matching the emotions reported by the teacher.

In the present study, each one of the 69 participating principals watched the nine clips comprising the entire conversation in chronological order and was asked to identify in writing the emotions the teacher experienced and reported. Consistent with the standard procedure in empathic accuracy studies (Ickes, 1997), two independent judges evaluated the written inferences produced by the principals and rank them based on their similarity to the emotions reported by the videotaped teacher (0 = no similarity, 1 = some similarity, 2 = identical). In the present study inter-rater reliability between judges was assessed by intraclass correlation – ICC (2) = .84 (Shrout and Fleiss, 1979). Based on Shrout's (1998) standards (excellent values > .80, good values .40 to .80, and poor values < .40), we concluded that inter-rater reliability was satisfactory and scores were averaged across judges. A higher score indicates a leader’s ability to recognize emotions more accurately.

Transformational leadership. Principals’ leadership behaviors were measured using the Multifactor Leadership Questionnaire (MLQ) developed by Bass and Avolio (1994). Transformational leadership includes 16 items representing four sub-components of behaviors, including individualized consideration, intellectual stimulation, idealized influence, and inspirational motivation. Because the focus of the present study was leader behavior and not attributions, the sub-dimension of idealized influence was not included (see Føllesdal and Hagtvet, 2013). Participants were asked to rate the items on a 5-point Likert scale, indicating the frequency of behaviors observed, ranging from 1 (not at all) to 5 (always). The literature suggests that when transformational leadership is being investigated, one factor represents the data best (Bono and Judge, 2004), and our data showed a similar effect, as the inter-correlations between the four transformational leadership sub-dimensions were very high (mean $r$ of .86., range .76 - .96). To test the construct validity of the one-factor transformational leadership model, we conducted a confirmatory factor analysis (CFA) using Mplus 6.12 (Muthén and Muthén, 1998-2011). We used the following fit indices: Chi-square model fit criterion ($\chi^2$), comparative fit index (CFI), and root mean square error of approximation (RMSEA). According to Hair et al. (2010), CFI
values of .95 and above and RMSEA values of .06 and below indicate a good fit. The CFA results of the unified transformational leadership index indicated a good fit of the data, $\chi^2 (96, N = 319) = 218.51 \ p < .001, \text{CFI} = .95, \text{RMSEA} = .06$. Therefore, following the recommendation of other scholars (see Dust et al., 2014; Zhu et al., 2013), a unified index of transformational leadership was adopted because it fits the data and provides a parsimonious representation (Carless, 1998). Cronbach’s alpha of the transformational leadership questionnaire was .91.

*Teachers’ experience of emotional reframing by principal.* Teachers’ experience of emotional reframing by principal was measured by an adaptation of the emotional reappraisal sub-scale of the Emotion Regulation Questionnaire (ERQ) developed by Gross and John (2003). Successful emotional reappraisal is considered to be an ideal experience by comparison with the results of other emotion-related changes because it is associated with relatively high positive affective, cognitive, and social outcomes (Manera et al., 2014). The original sub-scale contains six items designed to investigate participants’ self-tendency to reappraise their emotions. Following Thompson’s suggestion (1994) that external actors influence one's emotional experiences, we adapted the original items so that they indicate one’s experience of emotional reframing by another person in order to learn about the teachers’ experience of emotional reframing by principal. For example, the item “When I want to feel a more positive emotion, I change the way I’m thinking about the situation” was changed to “When my principal wants me to feel a more positive emotion, he/she changes the way I’m thinking about the situation.” The instructions provided with the questionnaire were also changed accordingly. Because we assumed that emotional reframing by principal is a phenomenon inherently difficult to reflect on, we expected a distribution of responses at the extreme lower and higher ends. Therefore, based on recommendations in the literature (Marfeo et al., 2014), we opted to use the agreement scale. Respondents were asked to indicate their agreement on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). To test the construct validity of the instrument, we conducted confirmatory factor analysis (CFA), which indicated a good fit of the one-factor structure $\chi^2 (7, N = 320) = 18.51, \ p < .001, \text{CFI} = .98, \text{RMSEA} = .07$. Cronbach’s alpha was .87.
Control variables. Demographic dissimilarity can affect the frequency of communication between individuals that is associated with an interpersonal emotional effect (Niven et al., 2012), such as emotional reframing. Therefore, principal-teacher similarity was addressed by using the following demographic variables: gender, educational level, age, and organizational tenure. Gender was dummy-coded for all participants (0 = male and 1 = female). Following Somech (2003), we used absolute differences between principals and teachers to describe relational demography, so that a higher score in all these demographic variables represents greater dissimilarity between principal and teacher. A gender similarity matrix was constructed by assigning a value of 0 to represent the fit between principals and teachers of the same gender and a value of 1 to represent a difference between their genders. Education level was coded into three categories (1 = professional certification degree, 2 = B.A., and 3 = M.A. or higher). Educational similarity was calculated by subtracting the principals’ and teachers’ responses from one another and displaying the difference in absolute terms. We subtracted teachers' age and tenure at schools from those of their respective principals, and used the absolute differences. We also controlled the effect of team size (i.e., the number of teachers employed full-time in the school), because according to the literature, leaders and employees are less likely to interact in large teams (Yukl and Chavez, 2002).

Aggregation test
We acknowledge that “leadership is by nature a multiple-level phenomenon” (Chun et al., 2009: 689), but similarly to other scholars we consider transformational leadership to be a unified input affecting all members of a leader’s unit (Kark et al., 2003). Therefore, although "differences among members in perceptions of their leader’s transformational leadership behaviors are of course possible," transformational leaders direct many of their behaviors in a unified manner toward followers (Kirkman et al., 2009: 747). Thus, individual scores of transformational leadership were aggregated at the group level. The calculated ICC (1) and ICC (2) (Bliese, 2000) were found to be .38 and .90, respectively, and they supported aggregation. Additional support for aggregation was found in an analysis of variance (ANOVA) based on ICC (1), which revealed that the difference between schools was significant ($p < 0.05$). Moreover, the mean $\text{rwg}(j) = .73$ (range = 0.53–0.99) was above the cut-off point of .70, which was suggested to justify aggregation (James, 1988). We used a skewed
distribution in the computation of \( \text{rgw}(j) \) because it is likely that employees do not process supervisors’ ratings in a systematic manner (Chen et al., 1996), and therefore a moderately skewed distribution is generated (Meyer et al., 2014).

**Analytic strategy**

The data collected reflect a hierarchical structure in which individual responses are nested within organizational units (schools). In the literature, this kind of model is described as a 2-2-1 multilevel mediation model (MacKinnon, 2008; Preacher et al., 2010), with the leader data (level 2) mediating the linkage between organizational or leadership antecedents (level 2) and subordinates' outcomes (level 1).

To test the proposed multilevel model, we conducted a multilevel structural equation modeling (ML-SEM), using Mplus 6.12 (Muthén and Muthén, 1998-2011), which combines path analysis with hierarchical data and can therefore accurately estimate the variable parameters and errors. ML-SEM is considered to be more appropriate for testing multilevel mediations than Baron and Kenny's (1986) multi-step approach, which uses a hierarchical linear modeling (HLM) method (Preacher et al., 2010). ML-SEM enables estimating simultaneously the indirect effects and the multiple paths that construct the mediation model. Finally, to examine the significance of our multilevel mediation hypothesis, we adopted the recommendation of Preacher et al. (2010) to use a Monte Carlo method for calculating confidence intervals. To this end, we used the R-based simulator available at http://www.quantpsy.org.

**Results**

Table 1 shows the means, standard deviations, and correlation coefficients of study variables. At the group level, principals' emotion recognition ability was positively related to transformational leadership \( (r = .24, p < 0.05) \). This correlation indicated a preliminary support of Hypothesis 2.
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<th>Variables</th>
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<th>Group level (SD)</th>
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<td>3. Team size</td>
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<td>4. Teachers’ emotional reframing</td>
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<td>5. Gender dissimilarity</td>
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<td>7. Age dissimilarity</td>
<td>11.88</td>
<td>7.39</td>
<td>-.07</td>
<td>.01</td>
<td>-.21**</td>
<td>-</td>
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<td>8. Organizational tenure dissimilarity</td>
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<td></td>
<td></td>
<td>.01</td>
<td>.02</td>
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<td>-.02</td>
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*Note.* N = 69 for group-level variables. N = 320 for individual-level variables. Cronbach’s alphas are reported in bold on the diagonal. *p < .05. **p < .01.
At Level 1, gender, age, and education dissimilarities, as well as organizational tenure were included in the proposed multilevel model as control variables with fixed effects on teachers’ emotional reframing. At Level 2, we specified the relationships of principals’ emotion recognition ability on their transformational leadership, and the cross-level relationship between principals’ transformational leadership and teachers’ emotional reframing. Furthermore, we estimated the cross-level relationship between team size and teachers’ emotional reframing. The results indicate a good fit between the model and data (χ² (16) = 28.84, CFI = .99, RMSEA = .01). As shown in Figure 1. The results of the multilevel model indicate that the hypothesized relationships in the model were found to be significant. As none of the relationships between the control variables and teachers' emotional reframing were significant, we omitted these paths from the diagram.

![Diagram](image)

**Figure 1.** Results of the hypothetical model
Standardized estimates of path coefficients. Solid lines represent statistically significant paths, dashed line represents statistically non-significant path.

* p < .05.

Figure 1 shows that the results of the multilevel model support our hypotheses. Transformational leadership was found to be positively related to teachers’ emotional reframing.
reframing ($\gamma = .57, p < .05$), confirming Hypothesis 1. Results also supported Hypothesis 2, as principals’ emotion recognition ability was found to be positively related to their transformational leadership ($\gamma = .26, p < .05$).

To test Hypothesis 3, which posited that transformational leadership mediates the relationship between leaders’ emotion recognition ability and teachers’ emotional reframing, we applied the bootstrap method recommended by Preacher et al. (2010) to evaluate the suggested indirect relationship. After 20,000 Monte Carlo replications, results indicate that there is a positive indirect relationship between leaders’ emotion recognition ability and teachers’ emotional reframing through transformational leadership (indirect effect = .041, 95% bias-corrected bootstrap CI [.003, .080]). Thus, Hypothesis 3 was also confirmed. The model in Figure 1 indicates that leaders’ emotion recognition ability is non-significantly related to teachers’ emotional reframing ($\gamma = .07, n.s.$). We therefore concluded that according to Baron and Kenny (1986) criteria for mediation, the indirect effect found indicates a full mediation of the effect of principals’ emotion recognition ability on teachers’ emotional reframing.

**Discussion**

The present study sheds light on the emotional aspects of principal-teacher relations, a topic that has been neglected in educational administration research (Blase and Blase, 2004). The study produced three important findings. First, principal's transformational behaviors were found to be related to teachers’ emotional reframing. Second, principals’ emotion recognition ability was found to be positively related to their transformational leadership. And third, principals’ transformational behaviors were found to fully mediate the effect of their emotion recognition ability on teachers’ experience of emotional reframing by the principal.

The findings have several theoretical implications. First, they support the assumption that principals' transformational behaviors leads to teachers' experience of emotional reframing. The findings do so by distinguishing between the two both theoretically and empirically, which to the best of our knowledge has not been previously done because transformational leadership was presumed to be indicative of subordinates' emotional change. This finding appears to be consistent with the theoretical claims that transformational behaviors are associated with subordinates’ positive emotional change (Ashforth and Humphrey, 1995; Bass, 1996; Shamir, 1995), and with the arguments that transformational school leadership induces hope (Walker, 2006) and energizes teachers (Geijssel et al., 2003). The study suggests that transformational school leadership is an emotional phenomenon.
because it is related to teachers' experience of emotional change for a more positive affect. Previous reports suggested that principals help teachers adopt a more positive outlook on emotion-eliciting negative events (Hanhimäki and Tirri, 2009). But the literature is unclear about which behaviors are involved in promoting such emotional transformation among subordinates. Our findings clarify this issue and link teachers positive emotional change to principals' transformational behaviors. Moreover, the study indicates that teachers' experience of emotion management by principals should not be viewed as an automatic reaction to principals' behaviors, and not attributed unquestioningly to the principals' behavior. The interest in exploring teachers’ emotional reframing experiences by principals as a distinct phenomenon is prompted by the assumption that these experiences attest to increased self-clarity and integration of one's positive identity (Rogers and Farson, 1957).

Second, our findings suggest that principals' ability to identify emotions is linked with their tendency to adopt a supportive approach toward teachers, as we found that leaders' emotion recognition ability is positively related to transformational leadership behaviors. This result supports previous findings in the organizational literature demonstrating the same association (Rubin et al., 2005). The traditional explanation presented in the literature is that leaders' emotion recognition ability opens a window onto their followers' authentic emotions, which helps leaders apply individually tailored behaviors in response to followers' emotions (Rubin et al., 2005: 847). Leadership behaviors are frequently theorized as unified and directed at the entire group (Kark et al., 2003), but we offer an alternative explanation of this association, namely that the ability to recognize a wider range of emotions (Ickes, 1997) shapes one's perception of social relations as emotional in nature and emphasizes the importance of emotions in interpersonal interactions. Thus, because school leaders perceive the social world around them as saturated with emotional issues and complexities, their inclination to adopt care-related transformational behaviors increases (Cherkowski, 2012). This explanation is consistent with evidence that educational leaders acknowledge the importance of recognizing emotions in others for their success as leaders (Cliffe, 2011; Slater, 2005). At the same time, it should be noted that educational leaders' motivation to support others is not necessarily purely altruistic, because care can be instrumental for the utilitarian goal of improving achievements (Blankstein, 2004).

Third, the results stress the role of leadership behaviors in mediating the effect of educational leaders' emotional abilities on teachers' emotional experiences. Unlike some works that merely theorized it (Daus and Ashkanasy, 2005; Kaplan et al. 2014), or other works that empirically explored part of the chain between leaders' emotional abilities and
subordinates' emotional experiences (Rubin et al., 2005), we found that the connection between school leaders' emotional abilities and teachers' emotional experiences influenced by leader are mediated by school leaders' transformational behaviors. Despite past suggestions, which argue that if leaders are highly capable of identifying emotions, their subordinates feel better (Rubin et al., 2005), our findings show that the effect of leaders' emotion recognition ability on subordinates' emotional state is more indirect than argued. This indirect effect is consistent with scholars' claims that a person's emotional abilities do not directly affect the emotional state of another individual (Zeidner et al., 2013). Thus, it is not enough for leaders to be skilled in identifying emotions, as found in past studies, or merely have a high empathic ability, but effective actions are required as well in order to affect the emotional state of another person. Consistent with previous suggestions, we found that transformational behaviors play a crucial role in promoting subordinates' positive affect. Popper and Mayseless (2003) suggested that transformational leadership is caring and developing, and has been found to have a strong association with the perception of a caring work climate in schools (Sagnak, 2010). Our findings are consistent with claims in the literature about related but not mandatory stages in the empathic process, such as the empathizer's cognitive empathy, the empathizer's emphatic behaviors, and the target's experience of emphatic care (Van Strien, 1999). Furthermore, our findings support claims in the educational administration literature about educational leaders' emotional capabilities, their behaviors, and teachers' emotional experiences (Blase and Blase, 2004; Cliffe, 2011), and expand them by proposing an integrative model of emotional dynamics in principal-teacher relations. The findings indicate that without the mediation of the principal's actions, school leaders' emotional recognition abilities do not influence teachers' affect. Thus, it seems that leadership behaviors serve as a crucial reference point that stimulate rethinking and offer a more adaptive perspective of one's feelings.

**Practical implications**

The findings of the present study have several practical implications. First, the insights of the present study are applicable to practitioners in the field of education. Frequent systematic reforms stimulate teachers emotionally (Kelchtermans, 2005), and claims that principals need to learn more about how to deal with teachers’ emotions have become common (James and Vince, 2001). Therefore, our findings are relevant for both aspiring and acting school principals. Second, the findings carry an important message for leaders of training programs. Given that principals' emotion recognition ability has been found to be related to their
transformational behaviors, preparation and professional development programs should aspire to develop their emotion recognition ability. Some successful training methods of emotion recognition ability have been documented (Wood and Kroese, 2007). Third, study results are relevant for policymakers who contemplate the restructuring of schools. The present study found that transformational behaviors have a positive relation with teachers' emotional transformation, therefore, aspiring and acting principals could benefit from strengthening transformational behaviors that promote positive emotional outcomes among teachers, as for example optimism, which is positively related to teachers' citizenship behaviors (Schwabsky, 2014). Thus, policymakers can promote teachers' experience of emotional reframing by providing structured guidance for managers, which has been proven to help them in developing transformational behaviors (Barling et al., 1996).

Study limitations and future research

The study has several limitations. First, the variables were measured at the same time, therefore the cross-sectional design limits our ability to offer a casual model. Nevertheless, the theoretical claims support the causal explanation of the indirect relationships found (Kaplan et al., 2014; Rubin et al., 2005). Given the growing awareness of temporal issues in leadership theories, and the complex reciprocal relations between different variables involved in the leadership process (Shamir, 2011), we suggest adopting a longitudinal design in future studies to examine these issues. A second limitation of the study lies in the fact that we did not assess the principals' ability to control their emotions. Previous works have indicated the possible significance of leaders' self-control. For example, Kaplan et al. (2014) noted that leaders' self-control can moderate the link between their emotion-related skills, such as emotion recognition, and their behaviors. It is possible, therefore, that the modest association we found between leaders' emotion recognition and transformational leadership is a compound expression of the relationship shaped at different levels of leaders' self-control. We suggest that future studies include supervisors' self-control ability as a moderator. Third, it is possible that issues having to do with gender have some effect on the results. The findings are consistent with prior studies indicating that empathic accuracy ability (Klein and Hodges, 2001) and transformational leadership (Mandell and Pherwani, 2003) do not vary significantly between men and women, and we also controlled for the effect of gender dissimilarity on results. But because we obtained the emotional reframing reports primarily from a female teaching sample, it would be prudent to further explore the influence of gender on this experience in a more heterogeneous teaching sample. Although the present study is
unique in its integrative approach, assessing principals' emotional abilities and behaviors side by side with teachers' emotional experiences, additional exploration is required. It has been suggested repeatedly that leaders' emotional abilities and interpersonal effect can help them promote organizational change and effectiveness (Gooty et al., 2010). Therefore, future research should attempt to investigate the ability of the model to predict the effectiveness of school leadership in such areas as teachers' work-related attitudes and behaviors and organizational outcomes.
References


Rogers CR and Farson RE (1957) *Active listening*. Industrial Relations Center of the University of Chicago.


Zhu W, Newman A, Miao Q and Hooke A (2013) Revisiting the mediating role of trust in transformational leadership effects: Do different types of trust make a difference? *The Leadership Quarterly*