

Typology of trust relationships: Profiles of teachers' trust in principal and their implications

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Abstract

This exploratory study is based on a multidimensional perspective of trust relationships proposed by Lewicki, McAllister, and Bies (1998) to classify the profiles of teachers' trust in the principal. The main purpose of the present study was to examine the type and frequency of profiles of teachers' trust in principal, and the implications of these profiles for teachers' relational wellbeing and their organisational citizenship behaviours (OCB). Cluster analysis of a field survey data of 654 public primary school teachers in Israel was used to identify the profiles of teachers' trust in the principal and the prevalence of various profiles. Analyses of variance show differences in teachers' wellbeing and OCB as a function of trust profile. The findings and their implications are discussed.

Keywords: affective trust, cognitive trust, emotions, OCB, trust in leader, teacher-principal relations, trust profiles

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1. Introduction

In the last three decades, research on trust in schools has generated an important body of evidence demonstrating the contribution of trust to schooling, and its desired outcomes. These findings support the notion that schools are structured in a way that makes success contingent on the coordination and cooperation of multiple stakeholders (Forsyth, Adams, & Hoy, 2011; Van Maele, Forsyth, & Van Houtte, 2014). Many researchers and practitioners have embraced the position that ‘relational trust is the connective tissue that binds individuals together to advance the education and welfare of students’ (Bryk & Schneider, 2003, p. 45). Trust between teachers and principal has a special place because it is viewed as a cornerstone of school success (e.g., Moye, Henkin, & Egley, 2005; Tarter & Hoy, 1988). Teachers' trust in the school leader simplifies social interactions, enabling both principals and teachers to devote less time to detailing plans, clarifying intentions, and monitoring each other's behaviour. Handford (2011) described trust in schools, and particularly trust in the leader, as an ‘enabler of change’. Teachers' trust in their principal is said to promote their involvement in schools, for example, as they embrace extra role behaviours (Tschannen-Moran, 2014). Despite expanding knowledge on trust in schools, our understating of trust itself is rather limited, as educational research overlooks its distinctive psychological dimensions (see McAllister, 1995), which may shape different types of trust relations (or trust profiles) between teachers and principals.

The present research is an exploratory study of teachers' trust in their principal from a multidimensional perspective. The study focuses on the classification of various types or profiles of trust relationships in schools. Unlike correlative studies, profile analysis can assist in identifying the dynamics between dimensions (Tsoumbris & Xenikou, 2010). To shed light on teachers' trust in principal, I relied on

cognitive and affective dimensions to characterise the diverse combinations of the trust bases at the root of different trust relations. I also investigated how these types of trust relations correlate with teachers' involvement in school, as manifested in their inclination to make an extra effort. I suggest that the multidimensional conceptualisation is needed to produce a realistic picture of work relations. This way of zooming in on the profiles of teachers' trust relations results in a better understanding of how these relations correlate with teachers' attitudes, behaviours, and school success.

2. Theoretical Background

2.1 Teachers' trust in principal

Teachers' trust in principal plays a significant role in explaining and predicting school performance (Van Maele, Van Houtte, & Forsyth, 2014). For example, Tschannen-Moran and Gareis's (2015a) study found that teachers' trust in the principal was significantly related to teacher professionalism ($r=0.71$), to academic press ($r=0.54$), and to community engagement ($r=0.61$), explaining 29-49% of the variance in these outcomes. Educational scholars frequently argue that nurturing faculty trust in the principal is a key path, if not *the* key path, for principals aiming to promote student learning and achievement (Tschannen-Moran & Gareis, 2017). Some empirical works indeed found that trust in the principal was significantly linked to student achievement ($r=0.43$) (Tschannen-Moran & Gareis, 2015a). At the same time, several studies found non-significant relations between teachers' trust in principal and student achievement and performance (Forsyth, Barnes, & Adams, 2006; Makiewicz & Mitchell, 2014). Adams and Forsyth (2010) provided some clarity regarding these contradicting findings. The researchers found that trust in schools has a larger direct

effect on social conditions (i.e., collective teacher efficacy and achievement motivation) than on actual school performance. In other words, the effect of teachers' trust in principal on academic achievement is more distal than traditionally claimed. Nevertheless, the theoretical and empirical literatures in education stress the value of promoting teachers' trust in principal. Principals wishing to nurture high trust on the part of faculty are often advised to balance the task-oriented and the relationship-oriented aspects of their role (Tschannen-Moran, 2014; Tschannen-Moran & Gareis, 2017). Tschannen-Moran's (2001, 2003, 2014) influential work in the educational administration field further broke down these two aspects into five facets: competence, reliability, benevolence, honesty, and openness. These facets act as behavioural antecedents that 'cultivate' and 'foster' faculty trust in the principal, which in turn is said to influence student learning through its effects on internal social conditions of the school (Tschannen-Moran & Gareis, 2015b).

2.2 Dimensionality of teachers' trust in principal

To date, the exploration of teachers' trust in the principal has focused mainly on its antecedents, and trust has been explored as a generalised concept (e.g., Handford & Leithwood, 2013; Tschannen-Moran & Gareis, 2015a). At the same time, the organisational literature suggests that the experience of trust encompasses several distinctive dimensions, including a cognitive one (beliefs about the reliability and dependability of the partner) and an affective one (a sense of care and concern between the sides) (McAllister, 1995). The few educational studies that used a measure allowing to break down teachers' trust in the principal into its cognitive and affective bases disregarded the differences between bases and calculated a unified index of interpersonal trust (Moye et al., 2005). Therefore, the content of the concept

has not been explored. My goal is to achieve a greater differentiation of trust bases and a more complex conceptualisation of trust relations in schools.

The simplification of trust relationships is a problem not only in educational research. In their theoretical work on trust relationships in organisations, Lewicki, McAllister, and Bies (1998) argued that organisational researchers consider interpersonal relationships mainly as a unidimensional phenomenon, and that behind this widely common operationalisation lies a 'limited "language of relationship" and a limited framework for describing the key parameters of relationships across contexts'. As a result, our understanding of relationships is still in its infancy (p. 441). Scholars have noted that even when several dimensions relevant to the conceptualisation of trust relationships are explored, the bases are often calculated separately, or aggregated without addressing possible combinations between the dimensions. Nearly two decades after the essay by Lewicki and colleagues, there are few empirical works on trust in organisations and schools based on a multidimensional perspective. To the best of my knowledge, no educational or organisational research has explored trust relations empirically from a multidimensional perspective.

2.3 Typology of teachers' trust in principal

One of the classic and popular conceptualisations of trust in organisations identifies two basic dimensions of trust: cognitive and affective (McAllister, 1995). Cognitive trust in a supervisor represents the employee's willingness to rely on the supervisor's competence and dependability (Yang, Mossholder, & Peng, 2009). This type of trust is the product of accumulated knowledge that is used to predict the probability that leaders will meet the expectations and their obligations. It has to do with predictability and reliability, based both on personal observations and on the leader's reported

reputation (Johnson & Grayson, 2005). To some extent, cognitive trust minimises uncertainty in social exchanges. The literature also dwells on the relevance of the affective dimension (McAllister, 1995). Affective trust in a supervisor represents the employee's sense of care and concern in the social exchange (Yang et al., 2009). This type of trust is related to an emotional experience of security and belief in the strength of the connection. More than cognitive trust, affective trust is the product of personal interactions with the leader, and unlike cognitive trust, it is not limited by the available information (Johnson & Grayson, 2005). In some ways, it has to do with the viewpoint that the leader's actions are intrinsically motivated and not the result of external interests (Rempel, Holmes, & Zanna, 1985).

Lewicki, McAllister, and Bies (1998) suggested that 'richness in the texturing of relationships' is more prevalent in mature relationships, as partners tend to draw on a wide range of situations and domains to foster their perception; thus, trust becomes 'grained and differentiated along specific bases' (p. 443). Following this line of thought, Lewicki and colleagues proposed a multidimensional theoretical framework for understanding trust relationships: a 2x2 matrix integrating trust (high and low) and distrust (high and low), conceptualising trust and distrust not as a bipolar construct or a continuum but as a simultaneous experience possible in human relationships. They described trust expectations as situations in which hope is involved, and distrust expectations as situations in which reasoned fear is involved (Lewicki et al., 1998, p. 445). These dimensions are largely equivalent to the cognitive and affective dimensions proposed by McAllister in his earlier work (McAllister, 1995). For the purpose of this study, I consider high trust as high affective trust (AT), and low distrust as high cognitive trust (CT). The theoretical framework of Lewicki and colleagues outlined four types of trust relationships:

1. Type 1 (equivalent to low AT and high CT). In this experience of relationship, the person does not gain confidence in the other party nor does it become wary of it. Transactions are characterised by professional courtesy. The interactions are limited in scope and depth, and the dynamics that develop are likely to avoid complex interdependence between the parties.
2. Type 2 (equivalent to high AT and high CT). In this experience of relationship, the person gains confidence in the other party and has no reason to become wary of it. Transactions are driven by common objectives and values, which are complex and rich. The interactions are broad and deep, and the dynamics that develop are likely to promote what is perceived as beneficial interdependences.
3. Type 3 (equivalent to low AT and low CT). In this experience of relationship, the person does not gain confidence in the other party and has reason to become wary of it. Transactions are driven by scepticism and cynicism about the intentions of the other party, which are presumed to be harmful. The limited and rare interactions involve constant monitoring of the other party, and the dynamics that develop are likely to make it challenging (if not impossible) to sustain effective interdependence. When dependence exists, the relationship integrates bureaucratic checks and procedures to manage the distrust.
4. Type 4 (equivalent to high AT and low CT). In this experience of relationship, the person gains confidence in the other party but also has reason to become wary of it. Transactions are highly segmented, limited, and rare, and they involve monitoring of one's own vulnerabilities.

Based on this theoretical framework, I formulate the first research question:

Q1: What are the prevalent types of teachers' trust in relationships with the principal?

2.4 Profiles of teachers' trust in principal and their implications

As noted in the Introduction, multidimensional profiling of trust in the leader has not been studied, but multidimensional profiling has been investigated with regard to organisational commitment (Tsoumbris & Xenikou, 2010; Somers, 2009; Wasti, 2005). Its implications for predicting wellbeing or organisational citizenship behaviours (OCB) have been demonstrated (Meyer, Stanley, & Parfyonova, 2012; Tsoumbris & Xenikou, 2010; Sinclair, Tucker, Cullen, & Wright, 2005). It is likely, therefore, that trust profiles also have predictive validity. The present work focuses on the effect of profiles of teachers' trust on teachers' relational wellbeing and OCB.

2.4.1 Profiles of teachers' trust in principal and their implications for teachers' wellbeing

Scholars define teachers' wellbeing as the quality of teachers' social-emotional state (Cook et al., 2017). Teacher's wellbeing has been conceptualised in the literature mostly based on its negativity (i.e., as stress and burnout that indicates poor wellbeing) (Renshaw, Long, & Cook, 2015), often with a long-term orientation. For example, Simbula (2010) used emotional exhaustion as equivalent to teachers' wellbeing. Other works offered a dual conceptualization (positive and negative) of teachers' wellbeing. For example, Parker, Martin, Colmar, and Liem (2012) suggested that teachers' wellbeing is composed both of engagement and burnout. Poor teachers'

wellbeing has been associated with low efforts to promote school change and to implement reforms (Cook et al., 2017), and with attrition and absenteeism (Parker et al., 2012). Diary studies revealed that daily fluctuations in co-workers' support, and work/family conflict levels predict the day levels of teachers' wellbeing (Simbula, 2010). Thus, the evidence emphasises the importance of social interactions and social demands to teachers' wellbeing.

The literature acknowledges the connection between trust in schools and teachers' wellbeing (Van Maele & Van Houtte, 2015). In the context of principal-teacher relations, teachers' relational wellbeing is most instructive. Makiewicz and Mitchell's (2014) SEM analysis of data from 377 teachers in California found that teachers' trust in principal predicated the frequency of interactions between principal and teacher. Because 'trust begets trust' (Creed, Miles, Kramer, & Tyler, 1996, p. 18), teachers' trust in principal is likely to promote principal's trust in teachers. Louis and Murphy (2017) revealed that principal's trust in teachers was positively related to principal caring. In other words, trust in principal promotes interactions with the principal and principal's trust, resulting in principal's caring behaviours that may contribute to teachers' relational wellbeing. There is indication that various relations, including trust, between principal and teachers have a different effect on teachers' relational wellbeing. A recent study that explored principals' emotionally manipulative behaviours found that negative behaviours (e.g., embarrassing and shaming) predicted teachers' negative affect in interactions with the principal, whereas principals' positive behaviours (e.g., nurturing pride and a sense of security) predicted teachers' positive affect in interactions with the principal (Berkovich & Eyal, 2017).

In sum, I propose that the profiles of trust in principal are related to teachers' wellbeing. Nevertheless, because research has not yet explored trust profiles and their effects on wellbeing, it is not possible to present specific hypotheses, and therefore I offer the following research question:

Q2: Which teacher trust profiles are associated with teachers' wellbeing?

2.4.2 Profiles of teachers' trust in principal and their implications for teachers' OCB

There is also some indication that different trust relations between principal and teachers have a different effect on teachers' OCB (known also as extra-role behaviours). OCB, referred to as the 'good soldier syndrome' (Organ, 1988), has been frequently theorised by contrasting it to the concept of in-role performance (Somech, 2016). For example, Organ (1990) has defined OCB as 'those organizationally beneficial behaviors and gestures that can neither be enforced on the basis of formal role obligations nor elicited by contractual guarantee of recompense' (p. 46).

Teachers' OCB can be directed toward individuals, such as teacher colleagues or students, and toward the school as a whole (Somech, 2016), and it includes a range of voluntary behaviours that contribute to school functioning or success, which are not formally mandated or rewarded (Somech & Oplatka, 2009). OCB has been associated, among others, with higher students' achievement, teachers' positive emotions toward teaching and school, better school discipline, positive school image, and a highly cooperative school climate (Oplatka, 2009).

The association between teachers' trust in principal and teachers' OCB has been supported by educational research. The literature suggests that trust in principal is linked with greater OCB (Van Maele et al., 2014) and emphasises specifically the

cognitive aspects of trust (e.g., fairness, honesty, avoiding disclosing information, etc.) (Somech & Oplatka, 2014, p. 51). Tschannen-Moran (2003) found that 15% of OCB was explained by trust in principal. Some works offer a partial explanation of the mechanism of operation behind the link between teachers' trust in principal and teachers' OCB. For example, Forsyth, Barnes, and Adams's (2006) study found that teachers' trust in principal is significantly and positively related to an internal enabling school structure ($r=0.76$). Enabling school structure allows teachers to feel confident and free in the activities they pursue at work (Hoy & DiPaola, 2007), and it is likely to promote their voluntary behaviors and OCB. There is some indication that different trust relations between principal and teachers have a different effect on teachers' OCB. For example, teachers experiencing trust of a given type in relations with the principal may view principal's demands for communication in a positive light. Studying 227 Turkish business employees, Ötken and Cenkci (2012) used a median split to divide their sample into high- and low-trust in the leader subgroups. Among members of the low-trust subgroup, the authors found a significant negative association between perceived supervisor's rigorousness on one hand and the experience of social responsibility and climate of friendship on the other; they found no significant association, however, between the variables of members of the high-trust subgroup.

To conclude, I suggest that the profiles of trust in the principal are associated with teachers' OCB. But because no prior work has mapped the trust profiles, hypotheses about given profiles and their implications for teachers' OCB are speculative. Therefore, below I offer an additional research question:

Q3: Which teacher trust profiles are associated with teachers' OCB?

3. Method

The present study is based on a quantitative field survey of public primary school teachers in Israel on the topic of trust in principal. Primary schools are flat hierarchies (Huber, 2004), in which the success of both principals and teachers depends on cooperation, making teacher-principal trusting relations critical. Below I describe the Israeli context, sample, procedure, measures, and analytic strategy.

3.1 Context of the study

The Israeli primary public school system is officially centralised, and the terms of the teachers' employment are negotiated at the national level through collective bargaining (Berkovich, 2011); a closer look at administrative practices, however, indicates that primary school principals have a certain degree of freedom in matters of hiring and scope of employment, particularly with regard to teachers in their pre-tenure years. Although teachers, both pre- and post-tenure, can transfer to other public schools, there may be few schools in the geographic vicinity of the teachers' domicile, limiting this option. The centralized employment policies that constrain both principal's and teacher's choices create a systemic situation that makes interpersonal trust central.

3.2 Sample and procedure

The data used in this study are part of a larger database collected by the author on school leadership and emotions for academic research purposes, but the present topic and questions are introduced here for the first time. The study sampled randomly public primary schools nationwide from a list provided by the Ministry of Education (MOE). According to MOE guidelines, data were collected only in schools where the

principals agreed to participate in the study. In participating schools, the researcher and research assistants presented the study to the teachers and asked them to participate. Questionnaires were completed on school grounds, with the researcher and research assistants present to answer questions. The random sample included 654 teachers in 69 public primary schools (response rate of 79%). Ninety two percent of the sample were women. Teachers' average age was 41.62 years ($SD = 10.20$), and their average teaching experience 16.82 years ($SD = 9.70$). The average number of years teachers worked with their principal was 7.1 ($SD = 5.31$). Most of the teachers held a B.A. degree (64.7%), 17.5% an M.A. degree, and the rest had a junior college diploma with teaching credentials. The demographic background of the sample was similar to that in prior research on Israeli teachers (Somech, 2002) and to formal reports describing the public primary education system (Weissblei, 2013).

3.3 Measures

3.3.1 Trust in principal

The two dimensions of trust in the principal, cognitive and affective, were measured using the 11-question Trust in Leader Scale developed by McAllister (1995), adapted to school settings. Answers were scored on a 5-point scale (1 = strongly disagree, 5 = strongly agree). Examples of scale items: 'The principal approaches his/her job with professionalism and dedication' (cognitive trust (CT), 6 items); 'If I shared my problems with the principal, I know he/she would respond constructively and caringly' (affective trust (AT), 5 items). McAllister (1995) found the scale to be valid and reliable, and reported excellent reliabilities for CT (.91) and AT (.89). The structure of the scale was tested by exploratory factor analysis (EFA), using SPSS software. The EFA used a Varimax rotation and yielded a two-factor structure

(compatible with the structure reported in the literature), with eigenvalues greater than 1.00 explaining 71.19% of the variance. The internal reliabilities of the CT and AT dimensions were high (0.92 and 0.88, respectively).

3.3.2 Teachers' relational wellbeing

In the literature, teachers' wellbeing indicates their socio-emotional state (Cook et al., 2017). In the present work, I chose to focus on teachers' relational wellbeing (i.e., the affect in interactions with the principal), because it is more relevant to exploring principal-teachers relations, which is the purpose of the study. I used Fisher's (1998) Job Emotions Scale, which includes 8 negative emotions (e.g., anger, embarrassment, etc.) and 8 positive ones (e.g., enthusiasm, pride, etc.). The instructions were adapted to invite teachers to address the prevalence of these emotions specifically in interactions with their principal. Answers were recorded on a 5-point scale (1 = never, 5 = always). Fisher (1998) reported scale validity and reliability. Cronbach's reliabilities for the negative and positive scales in the present study were excellent ($\alpha = 0.87$ and $\alpha = 0.94$), similar to those documented in Fisher's work (1998: $\alpha = 0.90$ and $\alpha = 0.95$, respectively).

3.3.3 Organisational citizenship behaviour (OCB)

Teachers' extra-role behaviour at school was measured using 23 items of the Somech and Drach-Zahavy (2000) OCB scale. A sample item is: 'I stay after school hours to help students with materials covered in class'. Participants were asked to rate the items on a 5-point scale (1 = strongly disagree, 5 = strongly agree). The scores were averaged to a unified index representing teacher extra-role behaviour at school. The scale was validated by Somech and Drach-Zahavy (2000). Cronbach's alpha in the

present study was very good (0.89), as previously documented (Bogler & Somech, 2004: $\alpha = 0.92$).

3.3.4 Control variables

Gender (female), education, and relationship length have been suggested to positively affect interpersonal trust rankings (Levin, Whitener, & Cross, 2006). Several demographic variables that may affect the trust profiles were included in the analyses, among them gender (0 = male, 1 = female), education level (1 = professional certification, 2 = B.A., 3 = M.A. or higher), age (in years), and duration of relationship with principal (in years).

3.4 Analytic strategy

To address the research questions presented in the introduction, I planned a series of analyses in two stages. First, I used cluster analysis to identify the profiles of teachers' trust in principal based on CT and AT dimensions. Cluster analysis provides a lifelike portrayal of the way in which the various dimensions of a phenomenon coexist and interact (Tsoumbris & Xenikou, 2010). Wasti (2005) suggested setting a pre-specified target for the number of profiles, based on their theoretical interpretability. I used the number of subgroups (4), which was theoretically derived based on the work of Lewicki, McAllister, and Bies (1998), in an iterative partitioning method, *k*-means clustering, which is the most commonly used clustering algorithm (Hung, Wu, Chang, & Yang, 2005). This technique assigns participants to profiles in a manner that maximises between-profiles variance and minimises within-profile variance (Everitt, 1993). To confirm the classification, I also conducted a one-way analysis of variance (ANOVA) with Bonferroni *post hoc* tests by cluster profiles to explore the differences

on trust-in-principal dimensions between clusters. I also conducted a visual inspection of the data, using a scatterplot with markers of the clusters generated in the *k*-mean cluster analysis.

Second, I performed analyses of variance to explore the effect of trust profile membership on teachers' relational wellbeing and OCB. I conducted ANCOVA analyses separately for positive and negative emotions in interactions with principal, and for OCB. In the one-way ANCOVAs, I controlled for teacher's gender, age, education level, and duration of relationship with principal, after which I conducted *post hoc* comparisons using the trust profile groups as the independent variable. If controls emerged as non-significant in ANCOVAs, I performed ANOVAs.

4. Results

Means, standard deviations, and correlations are presented in Table 1. Correlations between the dimensions of trust in principal were positive ($r=.66$). Three of the four controls (gender, age, and duration of relationship with principal) showed significant but weak correlations with several variables of interest, and only these three were later included in the exploration of research question 2.

Table 1. Descriptive statistics and correlations (n=654).

	Mean	<i>SD</i>	1	2	3	4	5	6	7	8
1. AT	3.738	.930								
2. CT	4.373	.782	.667**							
3. Positive affect in interactions with principal	3.742	.864	.761**	.735**						
4. Negative affect in interactions with principal	1.844	.641	-.507**	-.610**	-.587**					
5. OCB	3.282	.628	.349**	.174**	.335**	-.032				
6. Age ^a	41.635	10.205	.131**	.039	.079	-.004	.161**			
7. Gender	1.94	.254	-.059	-.063	-.079*	.032	.007	.045		
8. Education ^b	2.08	.558	-.071	-.041	-.024	.072	.029	-.002	-.002	
9. Years of work with principal	7.01	5.312	.114*	.123**	.071	-.045	.217**	.424**	.054	.011

Note: AT = affective trust in principal; CT = cognitive trust in principal; * $p < .05$; ** $p < .01$.

^a male = 1; female = 2; ^b certificate = 1; B.A. = 2; M.A. or higher = 3.

4.1 Research question 1: What types of teachers' trust are prevalent in relationships with principal?

I addressed the first research question by conducting a *k*-mean analysis. The results are shown in Table 2, which reports on the means and interquartile ranges of the clusters. As shown in Table 2, the distance of the relevant cases from their cluster centre is low, and the interquartile range is narrow. It appears, therefore, that cases in each cluster in general are homogeneous and suitably represented by the typology that emerged in the cluster analysis.

Table 2. Means, standard deviations, and interquartile ranges of trust in principal dimensions for each group.

Dimensions	Group A	Group B	Group C	Group D
AT in leader	2.40 (.59)	2.54 (.51)	4.60 (.33)	3.62 (.32)
	[2.00-2.80]	[2.40-3.00]	[4.40-5.00]	[3.40-3.80]
CT in leader	2.69 (.53)	4.09 (.43)	4.91 (.21)	4.40 (.47)
	[2.37-3.16]	[3.83-4.33]	[5.00-5.00]	[4.00-4.83]
Average distance of cases from cluster centre	.673	.755	.373	.475

Note: AT = affective trust in principal; CT = cognitive trust in principal; numbers in parentheses represent standard deviation; numbers in square brackets represent interquartile range (Q_1 - Q_3).

ANOVAs revealed a significant effect of cluster membership on both dimensions of trust in principal. The results showed that the four clusters significantly differ on CT, $F(3, 651) = 641.70, p < 0.001, \eta^2 = .25$. (Cohen (1988) classifies $\eta^2 .14$

as a large effect size, .06 as a medium effect size, and .01 as a small effect size). Tukey's *post hoc* tests indicate that the mean CT score was significantly higher for Group C ($M = 4.91$, $SD = .21$) than for all other groups ($p < 0.001$); the mean of Group D ($M = 4.40$, $SD = .47$) was significantly higher than that of the other two groups ($p < 0.001$); and the mean of Group A ($M = 2.69$, $SD = .53$) was significantly lower than that of the other groups ($p < 0.001$). The results also show that the four clusters differ significantly on AT, $F(3, 651) = 974.89$, $p < 0.001$, $\eta^2 = .18$. *Post hoc* tests indicate that the mean AT score was significantly higher for Group C ($M = 4.60$, $SD = .33$) than for all other groups ($p < 0.001$); the mean of Group D ($M = 3.62$, $SD = .32$) was higher than that of the other two groups ($p < 0.001$); and there was only a marginally significant difference between the means of Groups B ($M = 2.54$, $SD = .51$) and A ($M = 2.40$, $SD = .49$) ($p < 0.10$). In general, the ANOVA results support the finding that cluster membership is related to unique subgroup characteristics.

The majority of the clusters identified in the *k*-mean analysis were identical with the theoretical classes suggested in the conceptual literature. As the visual analysis of clustering membership indicates (Figure 1), only one of the trust profiles suggested in the theoretical literature (the one characterised by low CT and high AT in principal) is an 'empty category' regarding teachers employed in primary public schools because it contains an extremely low number of cases. Rather, the analysis indicated a different type of teachers' trust relation with the principal, which represents a combination of medium CT and medium AT in principal (i.e., Group D).

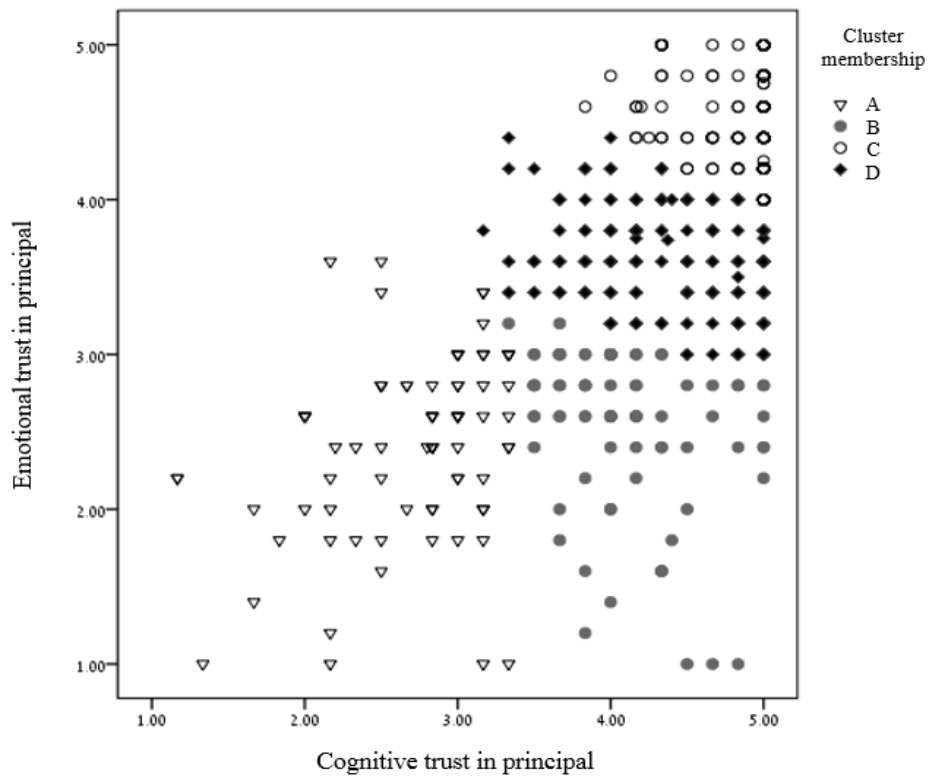


Figure 1. Plotted cluster membership.

The characteristics of the profiles are presented in Figure 2.

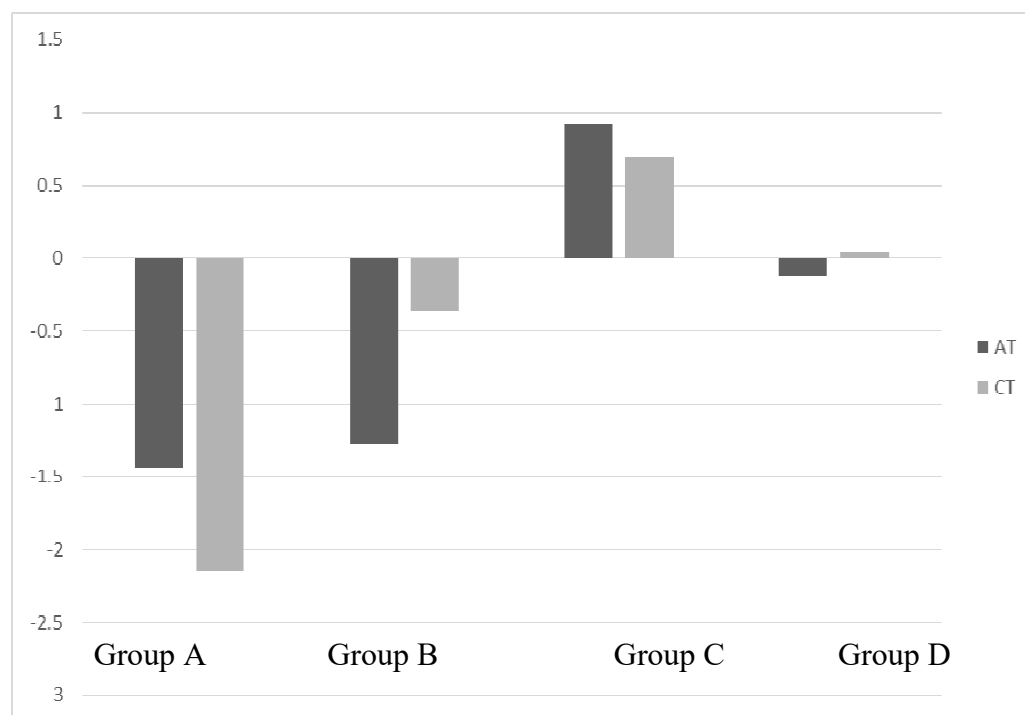


Figure 2. Characteristics of the profiles. AT = affective trust in principal; CT = cognitive trust in principal. Standard scores are reported to aid interpretation.

The most prevalent trust relationship was characterised by high CT and high AT (Group C: highly trusting, $N = 268$, 41.0%), closely followed by relationships characterised by medium CT and medium AT (Group D: medium trusting, $N = 223$, 34.1%). The rarer types of relationship in the sample were those characterised by high CT and low AT (Group B: cognitive-trust-dominant, $N = 88$, 13.4%) and by low CT and low AT (Group A: non-trusting, $N = 75$, 11.5%). Representing a population of 58,000 public primary school teachers in Israel (CBS, 2017) with a 654 respondent sample, assuming a confidence level of 95%, indicates a margin of error of a 3.8%. This means that there is 95% likelihood that the proportions of trust profiles of the public primary school teachers' population in Israel vary by no more than +/- 3.8%. This distribution suggests that AT acts as a watershed for many teachers in their relations with principals: only 487 respondents (74.4%) were above the AT midpoint, compared with 598 respondents (91.4%) who were above the CT midpoint.

4.2 Research question 2: Which teachers' trust profiles are associated with teachers' wellbeing?

Because all controls in the ANCOVAs of teachers' positive and negative affect in interactions with principal emerged as non-significant predictors, I omitted the controls and conducted one-way ANOVAs. The one-way ANOVAs indicated significant differences between trust profiles with regard to teacher's positive affect ($F(3,650)=297.58, p<.001, \eta^2 = .57$), and negative affect in interactions with the principal ($F(3,650)=94.19, p<.001, \eta^2 = .30$). Means and *post hoc* comparisons are reported in Table 3. The analyses revealed that trust profile groups are associated with teachers' wellbeing scores in a hierarchal manner. With regard to positive affect in interactions with the principal, the hierarchy was highly trusting mean > medium

trusting mean > cognitive-trust-dominant > non-trusting; with regard to negative affect in interactions with principal, an exact reverse hierarchy was formed. Teachers with an ambivalent relation, despite high CT, appear to experience reduced wellbeing in interactions with the principal, second in its psychological distress only to non-trusting teachers.

Table 3. Means associated with the trust profiles.

Profile	n	PA in interactions with principal ^a	NA in interactions with principal ^a	OCB ^b
1. Non-trusting	75	2.415	2.670	3.033
2. Cognitive-trust- dominant	88	3.096	2.115	2.956
3. Highly-trusting	268	4.389	1.547	3.517
4. Medium-trusting	223	3.666	1.816	3.207
<i>Post hoc</i> comparisons		3>4>2>1	1>2>4>3	3>1,2,4

Note: PA= positive affect in interactions with principal; NA= negative affect in interactions with principal; OCB = organisational citizenship behaviours. *Post hoc* comparisons (Bonferroni method) indicate which profile means differ significantly at $p<.05$.

^a ANOVA analysis.

^b ANCOVA analysis with teacher's gender, age, and duration of relationship as controls.

4.3 Research question 3: Which teachers' trust profiles are associated with teachers' OCB?

The one-way ANCOVA showed a significant difference between the profiles with regard to OCB ($F(3,414) = 15.40, p < .001, \text{partial } \eta^2 = .10$). *Post hoc* comparisons (Table 3) revealed that the OCB mean of the highly trusting group was significantly higher than other trust profiles, which were non-significantly different from each other, suggesting that high AT in principal is fundamentally associated with OCB in schools.

5. Discussion

The main purpose of the present study was to explore empirically the type and prevalence of profiles of teachers' trust in principal, and the implications of such profiles for teachers' attitudes and behaviours. The study draws on the theoretical work of Lewicki, McAllister, and Bies (1998), which operationalised trust relationship as a multidimensional concept. Although Lewicki and colleagues suggested the theory nearly two decades ago, to the best of my knowledge, it has not been explored in practice to date. The present study is therefore novel both in organisational and educational research.

The study makes several new contributions to our understanding of teacher's trust in principal, and of the implications of such trust. First, the present work confirms most trust profiles suggested by Lewicki and colleagues (1998), and as such, the findings provide empirical support for the concepts of the multi-dimensionality of trust and of diversification in trust relationships. Four distinct profiles of teachers' trust in principal emerged from the analysis, three of which are equivalent to those suggested in the literature, and a fourth type that reflects a medium-trusting

relationship. The frequency of the various trust relations in the sample indicated that most teachers display either a highly-trusting or a medium-trusting attitude toward their principal, and that non-trusting and cognitive-trust-dominant profiles were far less frequent. The cognitive-trust-dominant profile supports the idea that CT and AT are distinct concepts despite being highly intercorrelated. Among possible ambivalent arrays that were theorised in the past (Lewicki et al., 1998), the affective-trust-dominant profile emerged as an empty category. This missing category, which has been theoretically proposed by Lewicki et al. (1998), may indicate that not all hypothetical trust profiles are widespread or realistic. Thus, whereas CT without AT in principal seems possible, the opposite array is unlikely. Another explanation of the empty category may link it with the 3.8% margin of error of the study, so that possibly this is an extremely small group of teachers who regard their principal as some type of passive leader, with excellent human relations but not sufficiently active when needed. The results provide motivation for further research on the development of teacher's AT in principal and on other emotional aspects of teacher-principal relations, about which current knowledge is limited (Berkovich & Eyal, 2015).

Second, the study contributes to the understanding of the implications of teachers' trust profiles for their wellbeing. Teachers' wellbeing research has explored mostly general socio-emotional aspects and focused on negative affective manifestations (Renshaw et al., 2015), whereas the present work focuses on both positive and negative aspects of teachers' wellbeing in given interpersonal settings. This is an important step forward in the refinement of the concept of teachers' wellbeing. The findings extend existing knowledge on interpersonal antecedents of teachers' wellbeing (e.g., social support in Simbula, 2010), focusing attention on the role of relational trust in shaping teachers' wellbeing. The best relational wellbeing

outcomes (high positive and low negative affect) were displayed by teachers belonging to the highly-trusting profile group, followed closely by those in the medium-trusting group. The study also found that relational wellbeing variables demonstrated considerable variance between profiles. Teachers' emotions in interactions with the principal are a proximal outcome of the emotional dynamics in leader-follower relations (Kaplan, Cortina, Ruark, LaPort, & Nicolaides, 2014). But affective responses to leaders are among the least discretionary reactions that an employee can have (Dasborough, 2006). This issue emerges most clearly in the CT-dominant profile, which is an extreme form of an ambivalent relationship. Ambivalence is embedded in trust, which is often described as a complex simultaneous choice that involves both a positive expectation of future reward and a negative vulnerability element (Pratt & Dirks, 2006). Trust balances multiple dimensions, but in the presence of extreme ambivalence, a cognitive dimension is necessary but insufficient to promote relational wellbeing. Future investigation may benefit from exploring the degree to which a low level of AT weakens the positive effect of CT in leader.

Third, the study contributes to the understanding of the consequences of trust profiles for teachers' OCB. Only the highly-trusting profile emerged as significantly higher in OCB. This sheds light on the origin of what Organ (1988) called the 'good soldier', demonstrating that high OCB is highly contingent on quality of relations between managers and employees. OCB is therefore not linked only to one's character (Organ & McFall, 2004), but also to certain relational circumstances. The present findings also help elucidate why, despite claims that trust in principal significantly promotes OCB (Van Maele et al., 2014), a prior study found that trust in principal explained a relatively low percentage of the variance in teachers' OCB (Tschannen-

Moran, 2003)—possibly because it included other trust profile groups in the sample, in addition to the highly-trusting profile group. The highly-trusting profile is unique because it included a high AT. Somech and Oplatka (2014, p. 51) suggested that trust in principal increases the likelihood of teachers engaging in OCB. The authors discussed trust in principal as a general concept, but emphasised specifically cognitive aspects such as fairness, honesty, avoiding disclosing information to others, etc. However, the present work indicates otherwise, suggesting that high CT in principal does not contribute significantly to teachers' extra-role behaviours, as OCB means were similar in profiles with high and low CT. The results also suggest that AT in principal is more pertinent and central in explaining high teachers' OCB. This finding contradicts contemporary claims in the educational literature (e.g., Somech & Oplatka, 2014), but it is consistent with the logic of charismatic leadership theories, which identify followers' emotional attachment to the leader as central, and argue that it influences followers' attitudes and behaviours toward the organisation (Shamir, House, & Arthur, 1993). According to these findings, AT in principal should be a key focus in educational research. For example, it would be instructive to determine whether the importance of the AT dimension also holds true when exploring teachers' performance, as measured by student achievements.

This research is also highly relevant to practice. NECS data indicate that 8.1% of public school teachers annually transfer to other schools, most of them voluntarily and within the same district (Goldring, Taie, & Riddles, 2014). Naturally, such turnaround harms school processes. Transfer rate is double for new teachers (Goldring et al., 2014), and can be highly problematic in countries such as Israel, with public schools making up the largest part of the system, and with the teacher's tenure depending on the support of their principal. Thus, the results have practical

implications as well. First, knowledge about trust typology may be used to motivate the development of principals' emotional intelligence (EI). Individuals, particularly low performers, are known to be defensive when receiving performance feedback on EI (Sheldon, Dunning, & Ames, 2014), but general knowledge may motivate them to pursue emotional intelligence practices, which are fundamental to the highly-trusting profile that was found to have a beneficial effect on employees and the organisation alike. Second, the results are significant for acting principals. Currently, the educational administration literature stresses that all five facets of trust are similarly important, as they influence teachers' behaviours uniformly (Tschannen-Moran & Gareis, 2015b). The present findings, however, suggest the principals need to invest in the emotional management of their interactions with teachers, because these interactions set aside principals with excellent principal-teacher relations, from those who lack such qualities as well as staff that is willing to exert extra effort. This conclusion runs counter to the over-emphasis of the value of cognitive aspects of trust in principal in the teachers' OCB literature (Somech & Oplatka, 2014). Third, the trust typology discovered in the present research is essential for school counselling. The typology can help counsellors identify teachers with an ambivalent trust profile, which was found to have negative implications for their wellbeing. Ambivalent employees can be a destructive force in organisations, or act as constructive critics (Oreg & Sverdlik, 2011). Early detection of such employees and suitable intervention by counsellors may be instrumental in shaping ambivalent teachers' path in school.

Several limitations of the present study must be mentioned. First, data collection in schools was contingent upon the principals' agreement. Therefore, principals' characteristics (e.g., confidence or openness) might have indirectly affected the nature of the data collected, and as a result the low-trust profiles may be under-

represented. Second, it is possible that the post-bureaucratic Israeli policy environment (Berkovich, 2014) structured and constrained the trust profiles that emerged in this exploration. Educational leadership scholars have suggested that in post-bureaucratic systems, emotional aspects in teacher-principal relations are possibly more significant and better predictors of teacher and school performance than in bureaucratic systems (Bush, 2014). Therefore, additional research in other countries is advised. Third, the organisational environment of primary schools, which have a flat hierarchy (Huber, 2004), might have shaped principals as 'close leaders' from the point of view of physical location, psychological distance, and frequency of interactions (Antonakis & Atwater, 2002). This organisational context may have skewed the importance of affective aspects, so that results may be different in larger settings, such as secondary schools. This issue requires additional research.

6. Conclusion

The present study is based on assumptions of multidimensionality that acknowledge possible tensions in complex relationships, contrary to common assumptions regarding relationships being unidimensional and coherent. To the best of my knowledge, this is the first direct attempt to explore the configural effect of trust dimensions. The study contributes to the literature by providing support for this effect. The main benefit of using profile analysis of trust in the workplace is that we can discover the dynamics between various dimensions of trust, which cannot be assessed in correlational studies. The present work offers a new understanding of teachers' trust in principal and of its implications for teachers' wellbeing and OCB, and suggests a path for future works to conduct a more complex and realistic exploration of trust relationships in schools.

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