

Group-Level Organizational Citizenship Behavior in the Education System: A Scale Reconstruction and Validation

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Purpose: Most writings on Organizational Citizenship Behavior (OCB) to date have focused on analysis at the individual level and paid less attention to other analytical frameworks at the group level (i.e., team, unit, or organization). This article approaches OCB from the less conventional perspective of group-level activities and uses it to develop and validate a scale of Group-level Organizational Citizenship Behavior (GOCB) in the education system.

Data Collection: Data were collected from a survey of 206 Israeli teachers and their principals at 13 schools.

Findings: The scores were found to be statistically valid and demonstrated a high degree of reliability. In addition, two intra-factors (GOCB-I [group-level OCB toward individuals] and GOCB-O [group-level OCB toward the organization]) that are quite similar to those suggested in previous OCB literature emerged as key components.

Conclusions: The advantages of the group-level scale over other individual-level scales are explored and discussed in detail. The article ends with theoretical and practical implications for future studies that may focus on the “good platoon syndrome” of educational and other administrative systems rather than merely on the “good soldier syndrome.” The authors elaborate on the potential reconstruction of group-level measures of OCB that can enrich studies on organizational climate, culture, and social norms. Finally, the authors argue that their results as well as those suggested in previous research may direct future studies to develop the idea of “organizational citizenship climate” in the educational system and beyond.

Keywords: Organizational Citizenship Behavior; group-level OCB; schools; validation; climate and culture

As working under competitive and complex circumstances becomes an essential feature of educational systems (Miller, 2002), schools face new challenges as they move into an era of reorganization, stressing school-level accountability and school reform as a collective effort (Bryk, Camburn, & Louis, 1999; Newmann, King, & Youngs, 2000). The success of schools fundamentally depends on teachers' willingness to go above and beyond the call of duty to attain their school's objectives and goals. Moreover, during organizational changes, when job definitions are ambiguous, schools will have to be more dependent on teachers who are willing to contribute to successful change, regardless of formal job requirements (DiPaola & Hoy, 2005a, 2005b).

This study focuses on behaviors that surpass formal job requirements but are important and even crucial for a school's survival, namely Organizational Citizenship Behavior (OCB) (e.g., Organ, 1988; Podsakoff, MacKenzie, Paine, & Bacharach, 2000). OCB reflects "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system and that in the aggregate promotes the effective functioning of the organization" (Organ, 1988, p. 4). OCB refers to all helping behaviors extended to colleagues, supervisors, and students, such as lending a colleague a hand with work overload or preparing special assignments for higher and lower level students. Extended to the school at large, OCB includes suggesting improvements in pedagogical issues or talking favorably about the school to outsiders (e.g., DiPaola & Tschannen-Moran, 2001; Somech & Drach-Zahavy, 2000). The roots of OCB can be traced back to the earlier works of Katz and Kahn (1966), who argued that undertaking innovative and spontaneous activities beyond the prescribed role requirement is an important behavior required of employees for the effective running of organizations and the formation of a healthy workplace environment. Similarly, OCB consists of informal contributions that individual teachers can freely choose to make or withhold, without regard to sanctions or formal incentives. Many of these contributions, aggregated over time and persons, have been noted as enhancing the effectiveness of the school as a whole (Organ & Konovsky, 1989).

To date, the study of OCB has focused on the individual level and has paid less attention to group-level or system-level analysis. These two levels of analysis substantially differ from each other as they deal with OCB from multiple points of view. They offer additional sources of information and allow

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better validation of previously used measures, as well as provide important pieces of the puzzle about voluntary activities in organizations in general, and more specifically in the educational system and in schools. Only in recent years have some studies been published that focused on group or team-level OCB (i.e., Ehrhart, 2004; Ehrhart & Naumann, 2004; Pearce & Herbig, 2004; Somech & Drach-Zahavy, 2004). Moreover, to the best of our knowledge, no study has as of yet been exclusively devoted to the formation and examination of a solid OCB measure on the group, unit, or organizational level. The few studies that tried to point to the advantages of analyzing OCB on a group level (i.e., Ehrhart, 2004; Organ & Ryan, 1995; Podsakoff, Ahearne, & MacKenzie, 1997; Podsakoff & Mackenzie, 1997; Schnake & Dumler, 2003) have suggested several research tools in this direction. The prime goal of this study is to follow this line of research and enrich the discussion on OCB both theoretically and practically by offering a group-based measure of OCB and testing it empirically in the education arena.

In this study, we develop the rationale behind global-level organizational citizenship behavior and argue for the importance of measuring collectivist constructs, beyond that of simply aggregating individual data to a group level. We believe this approach may be a major contribution of this study and can be applied to other similar variables that should be redesigned and tested as group-level concepts. To that end, we have designed a scale with which to measure Group-Level Organizational Citizenship Behavior (GOCB). We offer a careful examination of the scale's validity and reliability, hoping to contribute to the knowledge about the meaning of good citizenship in educational systems and its multiple levels of analysis. We also hope to contribute to the discussion on the relationship between individual-level OCB and collective-level OCB and to explain the theoretical and practical advantages of GOCB over existing individual-level measures. The process of validating and testing the reliability of the scores is discussed in detail to increase the ability to generalize its use among OCB studies. Finally, we will comment on the implications of the scale's quality and its applicability in future studies of administrative sciences.

OCB THEORY: BACKGROUND AND LEVELS OF ANALYSIS

It has been only since the early 1980s, with the seminal works by Smith, Organ, and Near (1983), Organ (1988), and others that followed, that OCB has emerged as an exciting field of research. With the dramatic increase in OCB research in recent years, some consensus now exists among scholars about the construct validity of the scales in use, the major internal factors of OCB, and

the antecedents as well as the outcomes of this behavior. A meta-analysis by Organ and Ryan (1995) identified several attitudinal and dispositional predictors of OCB (i.e., job satisfaction and organizational commitment), whereas other studies pointed to personal and personality variables, to social exchange theory, to leadership, or to equity theory as relevant for a better understanding of this phenomenon (Niehoff & Moorman, 1993; Schnake, Cochran, & Dumler, 1995). These theories generally suggest that OCB is a personality trait, a social response to supervisors' and/or peers' behavior, as well as a possible reaction of the individual to the behavior of his or her superiors or to other motivation-based mechanisms in the workplace. OCB has thus been identified as an important indicator of employees' performance that goes beyond formal duties and has a major positive impact on organizational outcomes, service quality, effectiveness, and long-range sustainability (i.e., Mackenzie, Podsakoff, & Fetter, 1993; Podsakoff et al., 1997). Although researchers have proposed "anywhere from two (Williams & Anderson, 1991) to seven (Podsakoff et al., 2000)" intra factors for OCB (Ehrhart, 2004, p. 63), the majority of theorists identify two dimensions of the behavior: (a) OCB-I, which is citizenship behavior directed toward individuals, and (b) OCB-O, which is citizenship behavior directed toward the entire organization or part of it. Our study followed this generally accepted two-factor construct of OCB. However, we also tried to support this construct empirically, as will be explained later.

As with many subfields in organizational behavior research, OCB theory has struggled through several levels of analysis. Rousseau (1985) mentioned the level of analysis as a prominent issue in organizational behavior research. She suggested that "Most of what we study in and about organizations are phenomena that are intrinsically mixed level" (p. 2). A recent work by Schnake and Dumler (2003) supported this notion and argued that the individual level of analysis is dominant in the study of organizational behavior despite the fact that the field is largely mixed level, incorporating system-level or collective-level analysis such as group, unit, and organizational-level phenomena.

These notions may imply that OCB, as a growing field of interest in contemporary organizational behavior theory, can exist at multiple levels. However, "it is OCB in the aggregate (i.e., group and organizational level) which impacts organizational effectiveness" (Schnake & Dumler, 2003, p. 283). Nonetheless, Schnake and Dumler (2003) also observed that to date OCB has generally been considered a type of individual behavior or performance. This prevailing approach contrasts somewhat with the assertion by Organ (1988) who argued that the aggregate level of OCB (that is, OCB as measured at the group or organizational level) and not sporadic actions by some individuals affects organizational effectiveness.

Most current empirical studies have applied an individual-level analysis to the examination of OCB. However, in recent years we have witnessed

some changes in this regard. Several scholars such as George and her colleagues (George, 1990; George & Bettenhausen, 1990; George & Brief, 1992), Kidwell, Mossholder, and Bennett (1997), Podsakof et al. (1997), Koys (2001), Ehrhart and Naumann (2004), Tepper, Duffy, Hoobler, and Ensley (2004), Somech and Drach-Zehavy, (2004), and Pearce and Herbig (2004) identified the usefulness of studying OCB from the system or group level. Nevertheless, none of these studies has focused exclusively on the development and evaluation of the group-level OCB measure, and none of them has been developed in the educational context.

The work of Tepper et al. (2004) deserves more attention in this context. This study used a longitudinal design to test the relationship between coworkers' OCB and fellow employees' attitudes (i.e., job satisfaction and affective commitment). Based on the resource allocation theory, conflict resolution ideas, and the meaning of workplace aggression, it was suggested that supervisors' abusiveness may be a moderator between OCB and job attitudes. Most important, the study utilized a group-level scale of OCB that is quite similar to the one we propose here and found that abusive supervision moderates the relationships between OCB and job attitudes. Thus, our study retests Tepper et al.'s scale, this time with a different sample and in a different culture.

Therefore, it is important to highlight some similarities and differences between our study and the one by Tepper and his colleagues (2004). First, like Tepper et al., we also report confirmatory factor analysis (CFA) and other figures that support the scale's validation. Unlike Tepper et al., however, our study is dedicated to the establishment of a new scale and to its presentation in detail. Moreover, in line with Tepper et al. (2004), we argue that it is also valuable to sum up individuals' perceptions of *group* OCBs that are substantially different from perceptions of personal OCBs. Our approach to accomplishing this goal, however, is somewhat different. In Tepper et al.'s study, one employee rated his or her coworkers' OCB as a whole, and that same employee rated each coworker's OCB individually. Then, the first rating was correlated with the mean of all the individual ratings. In contrast with this method, our study attempts to measure employees' ratings of the group's OCB directly and correlate them with the *supervisors' independent ratings of individual OCB*. Thus, our study also differs from that of Tepper et al. (2004) by using supervisors' independent assessments of OCB that are correlated with group-level OCB.

MORE ON THE MISSING LINKS IN CURRENT STUDIES OF OCB

Schnake and Dumler (2003) suggested a typology of studies on OCB in various levels of analysis. They distinguished among three main groups:

(a) studies measuring and analyzing OCB (and outcome variables) at the individual level (i.e., Mackenzie et al., 1993; Skarlicki & Latham, 1995), (b) studies measuring and analyzing OCB (and outcome variables) at the group level (i.e., George & Bettenhausen, 1990; Podsakoff et al., 1997), and (c) studies measuring OCB (and outcome variables) at the individual level and analyzing at the group level (i.e., Waltz & Niehoff, 1996). What is evident from the typology of Schnake and Dumler (2003) is that we lack studies that measure both individual-level and group-level OCB concurrently and relate them to each other. A recent study by Ehrhart (2004, p. 64) reconfirmed that “despite increasing research on unit-level OCB, little attention has been given to the conceptual definition of the construct or its distinctiveness from individual-level OCB.”

Following Rousseau (1985), we argue that advancing our knowledge on mixed-level analysis in administrative sciences, organizational behavior, and OCB theory must rely on a solid linkage between the individual level of analysis and the group level of analysis. Thus, measuring OCB in the same research design, both on the individual level and on the group level, as well as linking these two levels is of serious potential merit. Relating the individual-level and group-level measures with each other can also improve the validation of the scores produced by a solid group-level scale of OCB. Our arguments draw substance from Bommer, Miles, and Grover (2003) and Ehrhart and Naumann (2004) who mentioned at least two theories that can support the relationship between individual-level and group-level OCB. First is the social learning theory, which suggests that people learn by observing others' behavior (Bandura, 1986). The more OCB is modeled by one's group members, the more likely one will behave consistently with those models, particularly when that behavior is associated with positive social consequences (Podsakoff & MacKenzie, 1997). Second is the social information-processing theory (Salancik & Pfeffer, 1978) that emphasizes the importance of social cues in shaping one's attitudes. When OCB levels are high among group members, the individual group member will be more likely to view such behavior as acceptable and expected, ultimately resulting in higher levels of individual OCB. Beyond these theories that provide a rationale for the relationship between individual-level OCB and group-level OCB, we also rely strongly on the studies of Schnake and Dumler (2003), Ehrhart (2004), Rousseau (1985), and House, Rousseau, and Thomas-Hunt (1995) who advocated integration of micro- and macro-level analysis in organization studies.

Thus, we concluded that although the individual-level OCB and the group-level OCB represent two separate measurement approaches to OCB, they are still correlated. The study by Tepper et al. (2004) supports this assertion and reports a correlation of .72 ($p < .01$) between group-directed OCB and individual-directed OCB (these concepts are quite similar to GOCB and

IOCB). Consequently, we believe that testing these two scales in one research design can provide support for the validity to the proposed scale.

Furthermore, a closer look into the empirical approach to measuring individual-level OCB reveals that most of the existing studies have used one of three methods: (a) obtaining managers' reports on employees' activities and behaviors (i.e., Organ & Konovsky, 1989; Vigoda, 2000; Williams & Anderson, 1991), (b) obtaining peer assessments of fellow workers from employees (i.e., Bommer et al., 2003; Morrison, 1994), and (c) using self-assessments by organizational members of their own activities at work (i.e., Organ, 1988; Pond, Nacoste, Mohr, & Rodriguez, 1997; Robinson & Morrison, 1995). In sum, the majority of the studies asked respondents to evaluate either their own or other individuals' behaviors. Although the traditional approaches to the understanding and measurements of OCB noted above provide useful information about employees' willingness to engage in voluntary workplace activities, they all suffer from various weaknesses and limitations. For example, there are serious obstacles to obtaining the managers' agreement to take part in such a unique assessment process. Furthermore, this data, when acquired, is tainted by biases such as the "last event bias," the "dominant event bias," the "halo effect," and other personal predispositions. In addition, the data provided through peer or self-assessment may suffer from a lack of objectivity. In some cases, its collection may put a heavy burden on (a) supervisors who need to spend extra time assessing their subordinates or (b) other participants who need to overcome psychological restraints when asked to evaluate fellow workers' activities objectively. In addition, the lack of knowledge of some of the assessors as to the actual OCB orientations of those they are evaluating may further compromise the data (Pond et al., 1997).

A group-level measure of OCB may help overcome these difficulties in several ways: (a) it shifts the burden of assessments from supervisors or co-workers to the employees themselves and thus increases the flexibility of the researcher, (b) it may increase the willingness of organizations to take part in such research efforts and increase the participants' response rate, (c) it uses an anonymous technique that can never be applied fully in conventional individual-level studies of OCB and, (d) it may minimize the likelihood of objectivity bias, as the referent is not one's self or any other individual but the "organization" in general.

GOCB: THEORY AND HYPOTHESES

To move from an individual-level measure of OCB to a group-level measure, we follow Podsakoff et al. (1997), Tepper et al. (2004), Pearce and

Herbik (2004), and several other theoretical works to propose a scale titled Group-level Organization Citizenship Behavior. The major difference between the conventional OCB scale and the GOCB scale is that the former aggregates the individual evaluations of other people, whereas the latter aggregates the individual evaluations of the collective OCB atmosphere in the organization, regardless of the behavior of a specific employee. Thus, the theoretical idea behind GOCB is derived from the arena of group norms and atmosphere in the workplace (Ehrhart & Naumann, 2004). According to this view, groups and work teams play a major role in shaping individual's attitudes and behaviors. Studies in social psychology have shown that groups have a major influence on peoples' decision making, perceptions, beliefs, and attitudes in a variety of areas. It has been suggested that norms of reciprocity and norms of fairness in social exchange give rise to OCBs. In organizations, work groups are powerful sources of norms for their members, and exchange relationships that form within groups may determine, in part, the level of OCB characteristic of a group (George & Bettenhausen, 1990). In other words, groups in organizations affect the organizational atmosphere and may serve as a strong motivational basis for personal activities, including employees' decisions to become engaged, or alternatively, to withhold spontaneous prosocial activities such as helping behaviors and OCB. For example, George and Bettenhausen (1990) and Podsakoff and MacKenzie (1995) found that less highly formalized organizations created an atmosphere of group cohesiveness that encouraged employees to engage in OCBs, whereas bureaucratically structured organizations created an environment of employee alienation that inhibited OCBs. The above studies, as well as others, also suggested that the organization's outcomes and performance are subject to collective-level dynamics that are far beyond individual initiatives and actions that take place visibly or behind the scenes in the workplace. Thus, it may be argued, that GOCB as a collective-level dynamic in the organization can be useful in explaining organizational outcomes over and above the explanation suggested by individual-level OCB.

According to this view, OCB can exist in a collective form rather than merely in an individual form. Although the original definition of OCB by Organ (1988) identified OCB as an individual behavior, it was also acknowledged that in the aggregate, it is the general atmosphere of accumulated OCBs (and not just sporadic actions) that eventually matter for the organization. In other words, although the specific extra-role behavior of the individual is important, only the collective impact of group-level OCB can drive organizational machinery forward and give it a competitive advantage over other organizations that are less OCB oriented. Thus, if many teachers engage in OCB, it will have a positive impact on school effectiveness. A school that

strategically encourages OCB (i.e., by creating a positive atmosphere of mutual help, highlighting the values of prosocial behavior and collegial support, or through examples set by instructional leaders) increases the number of teachers engaging in OCB, which in turn, should have a stronger impact on school effectiveness. Thus, group norms that enable and foster OCB, and generally higher levels of group-level OCB may be antecedents of individual-level OCB. In line with this reasoning, which was mentioned in several studies as a step forward in the study of OCB (i.e., Ehrhart, 2004; George, 1990; George & Bettenhausen, 1990; George & Brief, 1992; Kidwell et al., 1997; Koys, 2001; Organ & Ryan, 1995; Podsakoff et al., 1997; Podsakoff & Mackenzie, 1997; Schnake & Dumler, 1993), we follow Tepper et al. (2004) to suggest that GOCB may well embody a group-level operationalization of the traditional individual-level OCB measure.

Following Neuman's (2003) recommendations for multiple tests of validity and reliability to support new scales, we suggest that GOCB be tested by five major hypotheses. Hypothesis H1 tests the face and content validity of the new scale. Hypothesis H2 and H3 test the construct validity of GOCB. H2 draws on previous studies that have found two constructs of OCB (OCB-I—directed at individuals, and OCB-O—directed at the organization as a whole). H3 is formulated to distinguish between the new scale of GOCB and the conventional method of measuring OCB by managers' evaluations. Support for this hypothesis may strengthen the concurrent validity of GOCB. Hypothesis H4 tests the predictive validity of GOCB. Based on a thorough review of the OCB literature, Podsakoff et al. (2000) concluded that employee's perceptions and attitudes in and to the workplace have consistently proven in research to be key factors related to the extent to which the workers will engage in OCBs. Employees perform OCBs with greater frequency when they perceive the means by which organizations and their representatives make allocation decisions as fair (e.g., Tepper & Taylor, 2003). Here we chose to examine four well-known attitudinal variables: job satisfaction, participation in decision making, intention to leave, and organizational politics. Specifically, based on previous research, we expect (a) a positive relationship between OCB and job satisfaction (i.e., Bateman & Organ, 1983) and participation in decision making (i.e., Somech & Bogler, 2002; Van Yperen, Van Deberg, & Willering, 1999) and (b) a negative relationship between OCB and intentions to leave and organizational politics (i.e., Randall, Cropanzano, Bormann, & Birjulin, 1999; Vigoda, 2000). Finally, H5 tests the reliability of GOCB based on the criteria for internal consistency suggested by Neuman (2003, pp. 409-410, p. 139). These criteria are *equivalence* (the issue of making comparisons across divergent contexts, or whether a researcher in a specific time period and culture

correctly reads, understands, or conceptualizes data about people from different historical eras or cultures), and *representativeness* (reliability across subpopulations or groups of people that addresses the question, does the indicator deliver the same answer when applied to different groups?).

Hypothesis 1 (H1): The proposed GOCB scale will have face and content validity.

H2: In line with the traditional, individual-level scale of OCB, GOCB will also have two major factors: (a) GOCB directed at individuals (GOCB-I) and (b) GOCB directed toward the organization (GOCB-O).

H3: Employees' perceptions of GOCB will be highly related to, but still distinct from managers' perceptions of OCB.

H4: GOCB will be positively related to job satisfaction and participation in decision making. In addition, it will be negatively related to intentions to leave the organization and to organizational politics.

H5: GOCB will demonstrate a strong degree of internal reliability, equivalence, and representativeness. GOCB will be further validated by high homogeneity within groups and high heterogeneity across groups.

METHOD

The GOCB Scale

Table 1 presents the conceptualization and operationalization of GOCB based on the original scales of OCB. Existing scales of OCB such as those suggested by Williams and Anderson (1991), Organ (1988), and Tepper et al. (2004) were used to create a matching scale of 25 items representing GOCB directed toward individuals, GOCB directed toward the organization, and group-level in-role performance (GINR). As suggested by Chan (1998) and reconfirmed by Ehrhart (2004) and Tepper et al. (2004), our scale's referent is the unit rather than the individual, and "instead of studying an individual's performance of OCB, the interest is in the individual's perception of the normative level of OCB performed within the group" (Ehrhart, 2004, p. 65).

A total of 10 external professionals from the educational system and academia were asked to evaluate the proposed scale. A definition of the scale was provided to these experts, and they were asked to what degree each item fits within that domain and whether portions of the domain had not been captured. Their comments were summarized using a simple descriptive technique of percentage agreement. Based on these suggestions, we incorporated minor changes in the scale to further ensure its consistency and coherence. The changes included grammatical improvements of the text to cohere better

TABLE 1
The OCB and GOCB Measures

<i>Item</i>	<i>Organizational Citizenship Behavior (OCB) "The specific employee . . ."</i>	<i>Group-level Organizational Citizenship Behavior (GOCB) "In this school . . ."</i>
1.	Completes assigned duties adequately.	The teachers here complete assigned duties adequately.
2.	Fulfills responsibilities specified in his or her job description.	The teachers here fulfill responsibilities specified in their job description.
3.	Fulfills the supervisor's expectations.	The teachers here fulfill the supervisor's expectations.
4.	Meets the formal performance requirements of the job.	The teachers here meet the formal performance requirements of the job.
5.	Engages in activities that will directly affect his or her performance evaluation.	The teachers here engage in activities that will directly affect their performance evaluation.
6.	Neglects aspects of the job he or she is obligated to perform (r).	The teachers here neglect aspects of the job they are obligated to perform (r).
7.	Performs essential duties successfully.	The teachers here perform essential duties successfully.
8.	Helps others who have been absent.	The teachers here help others who have been absent.
9.	Helps others who have heavy work loads.	The teachers here help teachers who have heavy work loads.
10.	Assists supervisor with his or her work (when not asked).	The teachers here assist the principal with his or her work (when not asked).
11.	Takes time to listen to co-workers' problems and worries.	The teachers here take time to listen to other teachers' problems and worries.
12.	Goes out of his or her way to help new employees.	The teachers here go out of their way to help new teachers.
13.	Takes a personal interest in other employees.	The teachers here take a personal interest in other employees.
14.	Passes along information to co-workers.	The teachers here pass along information to co-workers.
15.	Attendance at work is above the norm.	Teachers' attendance at work is above the norm (for example, staying after school hours to help students).
16.	Gives advance notice when unable to come to work.	The teachers here give advance notice when unable to come to work.
17.	Takes undeserved work breaks (r).	The teachers here arrive at work on time and do not return late after work breaks.
18.	Spends a great deal of time on personal phone conversations (r).	The teachers here spend a great deal of time on personal phone conversations and issues irrelevant to work (r).
19.	Complains about insignificant things at work (r).	The teachers here complain about insignificant things at work (r).

(continued)

TABLE 1 (continued)

<i>Item</i>	<i>Organizational Citizenship Behavior (OCB) "The specific employee . . ."</i>	<i>Group-level Organizational Citizenship Behavior (GOCB) "In this school . . ."</i>
20.	Conserves and protects organizational property.	The teachers here conserve and protect organizational property.
21.	Adheres to informal rules devised to maintain order.	—
22.	—	The teachers here help other teachers and parents who have no formal interactions with them.
23.	Covers for co-workers.	The teachers here cover for co-workers.
24.	Helps people outside department.	—
25.	—	The teachers here have a strong volunteer orientation.
26.	Makes innovative suggestions to improve department.	The teachers here make innovative suggestions to improve school life.
27.	Coasts toward the end of the day (r).	The teachers here coast toward the end of the day (r).

with the described tasks and improved definitions of specific behaviors, including the addition of examples. Based on these suggested changes, we also omitted items 21 and 24 from the OCB scale, as they proved irrelevant in the GOCB scale that was distributed to teachers. To replace them, we added items 22 and 25 that were created specifically for the proposed scale for its use in an educational setting.

SAMPLE AND PROCEDURE

The GOCB scale (and group-level, in-role performance), together with various other measures of work attitudes and organizational dispositions (i.e., job satisfaction, participation in decision making, intentions to leave, and organizational politics) was distributed to a sample of 286 Israeli teachers from 13 schools. Participants were asked to take part in the study on a voluntary basis and 206 responded positively, a return rate of 72%. A total of 25 principals and deputy principals evaluated these teachers' OCBs and in-role performance. Each principal or deputy evaluated between 5 and 15 individuals with whom he or she worked closely and about whom he or she could offer a reliable opinion. In each school, there were between 10 and 60 teachers, and between 5 and 52 supervisors' evaluations were returned (a ratio of 50% to 86.6%). Demographics of the sample show that

the average age was 42.4 years ($sd = 9.3$) and the average years of education was 16.8 ($sd = 1.9$). The average tenure in school was 9.9 years ($sd = 7.2$), and the average tenure in the educational system was 16.4 years ($sd = 9.2$). Of the respondents, 97.4% were women, 78.8% were married, and 88.9% had a tenured job position.

Measures

Job satisfaction. A six-item scale taken from Schriesheim and Tsui (1980) measured this variable. Respondents were asked to indicate how satisfied they were with their current job, co-workers, supervisors, current salary, opportunities for promotion, and work in general. The scale for these questions ranged from 1 (*very unsatisfied*) to 5 (*very satisfied*). Reliability of this scale was .82.

Participation in decision making. This variable was defined as the extent to which staff members participate in setting the goals and policies of the entire organization and was measured by four items adopted from Aiken and Hage (1966). Respondents were asked how frequently they usually participated in decisions on the following issues: (a) promotion of any of the professional staff, (b) adoption of new policies, (c) adoption of new programs, (d) hiring of new staff. The scale ranged from (1) *never* to (5) *always*. Reliability of this scale was .84.

Intentions to leave. According to Mobely (1982) and Farrel and Rusbult (1992, p. 202), intentions to leave or exit-quitting orientations include job movement both within and across organizational boundaries, as well as a variety of cognitive activities that precede leaving. This behavior is manifested by intentions of searching for a different job and thinking about quitting. Respondents in both our samples were asked to report the degree to which they agreed with a 5-item scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Sample items were (a) "I often think about quitting" and (b) "During the next year I will probably look for a new job outside this organization." Reliability of this scale was .81.

Organizational politics. This variable was measured by a shorter version of the perception of political scale (POPS), which was first developed by Kacmar and Ferris (1991) and re-examined by Kacmar and Carlson (1994). The shorter version has been tested in a variety of studies in the Israeli environment and was found reliable and valid (Vigoda-Gadot, 2003). In keeping with the above studies, we also defined organizational politics as the degree to which

the respondents view their work environment as political, and therefore unjust and unfair. We applied a 7-item scale. Sample items are as follows: (a) "Favoritism rather than merit determines who gets ahead around here," (b) "Rewards come only to those who work hard in this organization" (reversed item), (c) "There is a group of people in my department who always get things their way because no one wants to challenge them." The scale ranged from 1 (*strongly disagree*) to 5 (*strongly agree*), so that a higher score means a higher perception of organizational politics. Reliability of the scale was 0.76, which is quite similar to that reported in other studies (e.g., 0.74 in Ferris & Kacmar, 1992; 0.76 in Parker, Dipboye, & Jackson, 1995).

Data Analysis

Our analyses were based on multiple tests of validity and reliability as suggested by Neuman (2003). H1 was tested by two criteria: (a) does the new scale capture the entire meaning of OCB (content validity), and (b) what is the value of the new scale in the eyes of others (face validity). H2 and H3 examine the degree to which the new scale agrees with external sources (construct validity). To test H2 we applied a factor analysis technique (both CFA and Exploratory Factor Analysis [EFA]) using Structural Equation Modeling (SEM). To test H3, we used simple zero-order correlations between GOCB and OCB to determine the level of consistency among the multiple indicators. H4 examined the predictive validity of the scale, that is, the degree to which it correlates with other variables in expected magnitude and direction (the expected magnitude is the one usually reported in other studies that tested such relationships and in this case usually range from .15 to .55, in absolute values). We tested this hypothesis using Pearson's correlations between GOCB and the validating variables such as job satisfaction, participation in decision making, intentions to leave, and organizational politics. Finally, H5 was tested using various techniques. First, we applied standard techniques of Cronbach's alpha (for internal consistency). Second, we conducted additional *t* tests between groups of distinctive demographics variables (for representative reliability). Third, we used r_{WG} (*r* within groups), ICC (Interclass Correlation Coefficient), and ANOVA tests to examine the consistency of the scale within each of the groups and/or schools and the distinctiveness of the scale across groups and/or schools.

FINDINGS

As shown in Table 1, the scale of GOCB is similar in content to the traditional OCB scale, with one major exception: all items refer to the system

(i.e., group/unit/organizational) level rather than to the individual level. Like the traditional OCB scale, the GOCB scale also includes items relating to helping activities directed toward individuals or toward the organization. Therefore, the content validity of the scale is strongly supported by the already acceptable, valid content of the OCB scale. Furthermore, and as noted earlier, the assessments of the external professionals from the educational system and academia also supported the content validity of the new scale. Thus, we concluded that H1 is supported and that the GOCB scores have both face and content validity.

Tables 2 and 3 examined the EFA and the CFA of the GOCB scale. Table 2 presents the exploratory factor analysis and shows that the proposed scale is composed of three major factors. The first and largest one includes 10 items, all of which refer to the general tendency that encourages teachers to help a specific person, either the supervisor or another teacher. This factor was labeled GOCB-I (GOCB-Individual), and its resultant Cronbach's alpha was .88. The second factor included eight items representing the more impersonal sort of OCB directed at the organization as a whole and was labeled GOCB-O (GOCB-Organization). All the items included in this factor pointed to a collective tendency of conscientiousness and responsibility toward the normal operation of the organization, over and above the formal requirements of job duties. A Cronbach's alpha of .66 was achieved. A third factor generated by the analysis included five items, all of them dealing with the collective tendency of fulfilling formal duties at work. This factor was labeled GINR and its Cronbach's alpha was .85. The loadings of items 24 and 25 could not be classified under any of these three categories and thus the items were omitted from the final scale.

In addition to the EFA procedure, we also performed two other tests to confirm the construct validity of GOCB. First, we performed a matching EFA for the traditional OCB scale, as completed by the school principals. As with the EFA for the GOCB scale, the EFA for the OCB scale also resulted in three factors (OCB directed toward individuals, OCB directed toward the organization, and in-role performance) that were quite similar to those found in the EFA for the GOCB scale.¹ This finding supported H2 that expected a similar intrafactorial structure for both the GOCB and OCB scales. Note that this finding is important, as we have used independent sources for gathering the GOCB and OCB data.

Second, we performed a CFA for the GOCB scale. As Table 3 shows, the CFA tested five competing models to determine which internal construct of the proposed scale best represents the reality. We compared the expected three-factor model to four other models (one 1-factor model and three additional 2-factor models). These five models cover a spectrum of comparisons among the factors. Whereas we could identify only one 1-factor model

TABLE 2
Exploratory Factor Analysis for the Group-Level Organizational
Citizenship Behavior (GOCB) Scale

<i>Item</i>	<i>Factor 1</i>	<i>Factor 2</i>	<i>Factor 3</i>
	<i>GOCB-I</i>	<i>GOCB-O</i>	<i>GINR</i>
1. The teachers here help others who have been absent.	.807		
2. The teachers here help teachers who have heavy work loads.	.843		
3. The teachers here assist the principal with his or her work (when not asked).	.811		
4. The teachers here take time to listen to other teachers' problems and worries.	.582		
5. The teachers here go out of their way to help new teachers.	.690		
6. The teachers here take a personal interest in other employees.	.562		
7. The teachers here pass along information to co-workers.	.560		
8. Teachers' attendance at work is above the norm (for example, staying after school hours to help students).	.544		
9. The teachers here help other teachers and parents who have no formal interactions with them.	.680		
10. The teachers here cover for co-workers.	.737		
11. The teachers here give advance notice when unable to come to work.		.457	
12. The teachers here arrive at work on time and do not return late after work breaks.		.748	
13. The teachers here spend a great deal of time on personal phone conversations and issues irrelevant to work (r).		.555	
14. The teachers here complain about insignificant things at work (r).		.698	
15. The teachers here conserve and protect organizational property.		.479	
16. The teachers here have a strong volunteer orientation.		.752	
17. The teachers here make innovative suggestions to improve school life.		.486	
18. The teachers here coast toward the end of the day (r).		.826	
19. The teachers here complete assigned duties adequately.		.899	

(continued)

TABLE 2 (continued)

Item	Factor 1	Factor 2	Factor 3
	GOCB-I	GOCB-O	GINR
20. The teachers here fulfill responsibilities specified in their job description.			.798
21. The teachers here fulfill the supervisor's expectations.			.738
22. The teachers here meet the formal performance requirements of the job.			.575
23. The teachers here neglect aspects of the job they are obligated to perform (r).			.557
24. The teachers here engage in activities that will directly affect their performance evaluation.	—	—	—
25. The teachers here perform essential duties successfully.	—	—	—
Eigenvalue	6.2	6	3.2
% Variance	27	27	13
Cumulative %	27	54	67

NOTE: GOCB-I = group-level OCB toward individuals; GOCB-O = group-level OCB toward organizations; GINR = group-level in-role performance. $n = 199-206$ due to missing values.

(GOCB-I & GOCB-O & GINR) and one 3-factor model (GOCB-I vs. GOCB-O vs. GINR), we identified three combinations of 2-factor models (GOCB-I & GOCB-O vs. GINR; GOCB-I & GINR vs. GOCB-O; GOCB-O & GINR vs. GOCB-I). As expected, a 3-factor model (GOCB-I vs. GOCB-O vs. GINR) was the best. Its chi-square, chi-square/df ratio, as well as all its other fit-indices (root mean square error of approximation, Normed Fit Index, Relative Fit Index, Incremental Fit Index, ECVI) were better in the 3-factor model than in the other models. Thus, we concluded that the proposed GOCB scale is very similar to the original OCB scale in terms of internal structure, as they are both composed of three main factors. Both the EFA and CFA tests showed that employees were able to distinguish intra-role and extra-role group-level performance (the two GOCB factors) in their particular settings. Hence, these findings strongly support H2 as to the construct validity of the GOCB scores.

To support H3 and the concurrent validity of the scale, we examined the internal correlation among various factors of GOCB and OCB. As shown in Table 4, the Pearson's correlations amongst the GOCB factors, on one hand, and the OCB factors on the other hand, are fair and range between $r = .17$ and

TABLE 3
Confirmatory Factor Analysis for the Group-Level
Organizational Citizenship Behavior (GOCB)

<i>Model/Description</i>	<i>df</i>	<i>Model Comparison</i>	$\Delta\chi^2$	<i>df</i>	χ^2/df	<i>RMSEA</i>	<i>NFI</i>	<i>RFI</i>	<i>IFI</i>	<i>ECVI</i>
Three-factors										
1. GOCB-I vs. GOCB-O vs. GINR	660.289*	—	—	—	2.909	0.096	0.957	0.948	0.972	3.923
Two-factors										
2. GOCB-I & GOCB-O vs. GINR	721.154*	1 vs. 2	60.865*	2	3.149	0.102	0.953	0.944	0.968	4.201
3. GOCB-I & GINR vs. GOCB-O	997.324*	1 vs. 3	337.035*	2	4.355	0.128	0.936	0.922	0.950	5.548
4. GOCB-O & GINR vs. GOCB-I	775.946*	1 vs. 4	115.657*	2	3.388	0.108	0.950	0.940	0.964	4.468
One-factor										
5. GOCB-I & GOCB-O & GINR	1026.779*	1 vs. 5	336.49*	3	4.464	0.130	0.934	0.920	0.948	5.682

NOTE: RMSEA = root mean square error of approximation; NFI = Normed Fit Index; RFI = Relative Fit Index; IFI = Incremental Fit Index; ECVI = Expected Cross-Validation Index; GOCB-I=GOCB directed at Individuals, GOCB-O=GOCB directed at organizations, GINR =Group-level In-Role performance.
 * $p < .001$.

$r = .27$. In addition, overall GOCB and overall OCB correlated at the .27 level. The fact that these correlations are not very high (beyond .70) also indicates the lack of multicollinearity between GOCB and OCB. We also calculated the correlation between the general GOCB score for each of the 13 schools and the general score of OCB in these schools. Although this calculation, when $n = 13$, is somehow problematic, we still believe it may have considerable significance for our analysis on the group level. Findings for this analysis yielded $r = .49$ ($p < .05$), which further supports the argument that GOCB, as reported by the teachers, is significantly related with OCB, as reported by the principals, at the group level. However, it also suggests that group-level OCB and individual-level OCB are two independent constructs that represent different prospects of the citizenship behavior phenomenon. In the aggregate, we believe that these findings support H3 and the construct validity of GOCB, as they demonstrate a strong compatibility with the existing OCB scale and with several other attitudinal variables suggested in the literature. This may be another strong contribution of the study.

To support H4 and the predictive validity of GOCB, we further examined the internal correlation between the proposed scale and other variables that were previously found to have a significant relationship (both positive and negative) with OCB. As Table 4 shows, GOCB was positively related with job satisfaction and with participation in decision making ($r = .51$; $p < .001$ and $r = .31$; $p < .001$, respectively) and negatively related with organizational politics and with intentions to leave the organization ($r = -.55$; $p < .001$ and $r = -.37$; $p < .001$, respectively). GOCB-I was related to job satisfaction, participation in decision making, intentions to leave, and organizational politics ($r = .52$; $p < .01$, $r = .28$; $p < .01$, $r = -.33$; $p < .01$, $r = -.54$; $p < .01$, respectively). It was also related to group-level in-role performance and to in-role performance ($r = .31$; $p < .01$ and $r = .16$; $p < .05$, respectively). Likewise, GOCB-O was related to job satisfaction, participation in decision making, intentions to leave, and organizational politics ($r = .43$; $p < .01$, $r = .24$; $p < .01$, $r = -.39$; $p < .01$, $r = -.53$; $p < .01$, respectively) and, in addition, it is positively related to group-level in-role performance and to in-role performance ($r = .42$; $p < .01$ and $r = .24$; $p < .05$, respectively). The later findings are in line with the study of Chen, Lam, Shaubroeck, and Naumann (2002) who found a strong relationship between group-level OCB and in-role performance. Comparing these findings with the correlations between OCB and the validating variables we found quite similar relationships, although their magnitude was somehow lower. OCB was positively related with job satisfaction and with participation in decision making ($r = .27$; $p < .001$ and $r = .14$; $p < .05$, respectively) and negatively related to organizational politics and intentions to leave the organization ($r = -.23$; $p < .001$ and $r = -.27$; $p < .001$,

TABLE 4
No Correlation Matrix for GOCB, OCB, and In-Role Performance (Cronbach's alpha in parentheses)

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. GOCB-I (10 items)	3.44	.62	(.86)											
2. GOCB-O (8 items)	3.57	.47	.55**	(.62)										
3. Overall GOCB (18 items)	3.50	.50	.93**	.81**	(.86)									
4. OCB-I (11 items)	3.43	.74	.25**	.18*	.25**	(.92)								
5. OCB-O (5 items)	4.21	.36	.17*	.21**	.21**	.37**	(.64)							
6. Overall OCB (16 items)	3.67	.59	.26**	.21**	.27**	.96**	.60**	(.89)						
7. GINR (5 items)	4.25	.56	.31**	.42**	.40**	N.S.	.17*	.15*	(.81)					
8. In-role performance (7 items)	4.64	.41	.16*	.24**	.22*	.53**	.46**	.59**	N.S.	(.87)				
9. Job satisfaction	3.54	.71	.52**	.43**	.55**	.26**	.14*	.27**	.27**	.17*	(.82)			
10. Participation in decision making	2.19	.91	.28**	.24**	.30**	.16*	N.S.	.15*	N.S.	N.S.	.40**	(.84)		
11. Intentions to leave	1.87	.90	-.33**	-.39**	-.41**	-.23**	-.27**	-.28**	-.33**	-.28**	-.51**	-.28**	(.81)	
12. Organizational politics	2.53	.73	-.54**	-.53**	-.61**	-.20**	-.20**	-.23*	-.26**	-.26**	-.60**	-.33**	.50**	(.76)

NOTE: $n = 199-206$; GOCB = Group-level Organizational Citizenship Behavior; OCB = Organizational Citizenship Behavior; GOCB-I = Collective OCB-Individuals; GOCB-O = GOCB-Organizational; GINR = Group-Level In-Role Performance; OCB-I = OCB-Individuals; OCB-O = OCB-organizational.

* $p \leq .05$. ** $p \leq .01$.

TABLE 5
A Comparison of GOCB Across Different Demographical Groups

<i>Variable</i>	<i>Category</i>	<i>Cronbach's Alpha</i>	<i>Mean</i>	<i>SD</i>	<i>t Test (Nonequal variance assumed)</i>	<i>df</i>	<i>P</i>
Dichotomous							
1. Marital status	Married	.85	3.49	.49	0.24	187	NS
	Not-Married	.87	3.51	.52			
2. Job description teachers	Home room	.87	3.55	.52	0.83	176	NS
	Subject matter teachers	.84	3.55	.48			
3. Job status	Tenured	.86	3.51	.49	0.49	169	NS
	Temporary	.85	3.45	.52			
4. Job in other school	Yes	.85	3.48	.47	0.61	183	NS
	No	.85	3.53	.48			
Continuous							
5. Number of children	0-2	.84	3.51	.48	0.36	204	NS
	3+	.87	3.48	.53			
6. Age	Up to 44	.85	3.52	.48	0.62	204	NS
	44+	.86	3.48	.51			
7. Tenure in school	0-9	.85	3.49	.50	0.17	204	NS
	9+		.86	3.50	.49		
8. Tenure in education system	0-15	.85	3.50	.52	0.11	204	NS
	15+	.86	3.49	.48			
9. Teaching hours per week	1-24	.85	3.52	.48	0.83	204	NS
	24+	.87	3.46	.54			
10. Monthly income (\$)	0-1,200	.85	3.46	.51	1.01	204	NS
	1,200+	.86	3.55	.47			
11. Self-reported absenteeism (days per year)	0-3	.86	3.55	.50	1.43	204	NS
	4+	.84	3.45	.49			

respectively). These findings strongly support H4 and the predictive validity of GOCB and are in line with previous literature such as Williams and Anderson (1991), Organ and Ryan (1995), and Vigoda (2000).

Finally, to support H5 and the reliability of GOCB, we turned to Cronbach's alpha values and to *t* tests. As previously shown in Table 4, the Cronbach alpha for the overall GOCB scale, as well as for its internal subfactors was reasonable and ranged between .66 for GOCB-O and .88 for GOCB-I, with the overall scale's reliability (18 items) of .86. These findings support H5 in terms of the internal consistency and equivalence reliability of GOCB.

In addition, to examine the representative reliability of the GOCB scores, we analyzed its characteristics across various demographic groups. As shown in Table 5, GOCB was tested for 11 such groups based on marital status, job description, job status, position in another school, number of children, age, tenure in school and in the educational system, teaching hours per week, monthly income, and self-reported absenteeism. Dichotomous groups were defined by categories and other continuous groups were defined based on median values. *t* tests show that the GOCB scale's means remained stable across all groups as no significant difference was found for any of them. In addition, only very minor differences were found for Cronbach's alpha across the groups, another testimony to the representative reliability of GOCB. In sum, we concluded that these findings support H5 and attest to the internal reliability, equivalence reliability, and representative reliability of GOCB.

Homogeneity of group-level organization citizenship behavior was assessed with the r_{wg} statistic. Homogeneity is represented by a value of 0.70 or above on the r_{wg} index of within-group consensus. Table 6 suggests a mean r_{wg} value of 0.95 for overall GOCB, a mean r_{wg} value of 0.87 for GOCB-I, and a mean r_{wg} value of 0.94 for GOCB-O. These values provide justification for aggregating individual-level responses to measure homogeneity group-level OCB. ICC values ranged between .12 and .29 (for ICC1) and between .79 and .87 (for ICC2), which are reasonable scores (Bliese, 2000). In addition, to test the heterogenic difference among the 13 groups, we used a one-way ANOVA. The results demonstrate a significant difference among the schools. The F test shows a significant difference among the schools ($F = 3.899, p > .000, df = 12$). A similar F test was also conducted on each of the 18 items of GOCB. Findings of this analysis for 13 items also show significant differences among the schools ($F = 1.877-4.959, p = .000-.038, df = 12$). Only in the case of five items (8-9 and 13-15) did the F test show insignificant differences among the 13 schools.

DISCUSSION

The modern educational system is highly dynamic and faces difficulties in setting and supervising specific quantitative goals for teachers. Therefore, behaviors that go beyond in-role duties become a fundamental component for achieving effectiveness in schools (DiPaola & Hoy, 2005a, 2005b). Furthermore, within the context of the current reform movement in education, when job definitions are ambiguous, schools have to be more dependent on teachers who are willing to contribute to successful change, regardless of formal job requirements (Somech & Drach-Zahavy, 2000).

TABLE 6
Within-Group Consistency Analysis for 13 Schools and/or Groups ($n = 206$)

<i>Construct</i>	<i>r_{wg}</i>		
	<i>Minimum</i>	<i>Maximum</i>	<i>Average</i>
GOCB-I	0.80	0.94	0.87
GOCB-O	0.90	0.98	0.94
GOCB	0.93	0.98	0.95

NOTE: GOCB = Group-level Organizational Citizenship Behavior; GOCB-I = Collective OCB-Individuals; GOCB-O = GOCB-Organizational.

Given that OCB is performed by individuals, it is appropriate to examine it as an individual phenomenon. However, a teacher's decision to engage in OCB is not made in a vacuum, and the organizational context most likely serves to encourage or discourage them in making this decision (Somech & Ron, in press).

This study has built on other recent efforts to suggest an established scale of OCB on the system or group or team-level (i.e., Ehrhart & Naumann, 2004; Pearce & Herbig, 2004; Podsakoff et al., 1997; Somech & Drach-Zahavy, 2004; Tepper et al., 2004). Our findings provide additional empirical support for the notion that OCB can be evaluated using a broader group-level analysis. We suggest and examine a practical research tool called GOCB that can be of use in future studies and in extending our understanding of this behavior. One major contribution of this study is demonstrating the need to measure organizational or group-level variables differently than simply aggregating individual-level data to the group level. We hope that our findings will encourage future studies in this direction and thus enrich the conceptual and empirical tools in educational administration and other organizational environments.

As suggested by Ehrhart (2004), a system-level analysis of OCB shifts the focus to how the unit as a whole is perceived and to what is considered the standard mode of behavior in the unit. The new measure, as suggested here, may contribute to future OCB studies but also to the growing knowledge on organizational climate (i.e., Hoy, Hannum, & Tschannen-Moran, 1998; Litwin & Stringer, 1968; Schneider, 1980; Schneider, White, & Paul, 1998). Schneider et al. (1998) argued that organizations are often composed of many different spheres. Other studies have suggested that organizations have multiple climates such as the human resource development climate (Biswajeet, 2002), service climate (Schneider et al., 1998), innovation climate (Scott & Bruce, 1994), ethical climate (Starratt, 1991), political climate (Drory, 1993; Vigoda, 2003), justice climate (Colquitt, Noe, & Jackson, 2002), or participative climate

(Tesluk, Vance, & Mathieu, 1999). Our findings may suggest that specific types of organizational climate may lead to GOCB. For example, schools that encourage norms of mutual-help, voluntarism, and social reciprocity may be characterized by higher levels of GOCB. Hence, we would also expect that higher levels of justice climate, service climate, and participative climate can lead to more GOCB, whereas higher level of political climate may affect GOCB negatively. We find initial support for the above assertion in the work of DiPaola and Tschannen-Moran (2001), who examined the link between school climate and OCB in the school setting. All four dimensions of the school climate (Hoy et al., 1998), namely collegial leadership, teachers' professionalism, academic pressure, and community pressure, were strongly linked to teachers' OCBs. Moreover, the theory on organizational climate may also benefit by the extension of our understanding of climate in the workplace and by the attempt to assess the comparative advantage of one climate over the other, especially in relation to GOCB.

Future studies may include good citizenship in their measurements of organizational climate. GOCB and/or a good citizenship climate may be fostered by other types of climates or exist independently. Although educational research on school climate refers to behaviors such as cooperation and support as part of a positive and open climate (e.g., Hoy et al., 1998; Tarter, Sabo, & Hoy, 1995), we suggest that by developing a distinctive concept of climate for OCB, we can identify schools that intentionally endorse values such as social responsibility and accountability. Schools that nurture such values may foster teachers' willingness to go above and beyond the call of duty to attain their school's objectives and goals. The concept of climate for OCB may also contribute to the understanding of multiple climates in the organization, as suggested in previous studies (e.g., Argyris, 1958; Ehrhart & Naumann, 2004; Friedlander & Marguiles, 1969; Litwin & Stringer, 1968). Consequently, those organizations capable of encouraging such a climate at the institutional level and turning it into a socially approved behavior will deal better with future challenges in the private or even public sector. Our study implies that OCB can exist in a collective form rather than merely in an individual form. Although the original definition of OCB by Organ (1988) identified OCB as an individual behavior, it was also acknowledged that in the aggregate, it is the general climate or atmosphere of accumulated OCBs (and not just sporadic actions) that eventually matter for the organization. In other words, although the specific extra-role behavior of the individual is important, only the collective impact of group-level OCB can drive organizational machinery forward and give it a competitive advantage over other organizations that are less OCB-oriented. Thus, if many employees engage in OCB, it will have a positive impact on organizational effectiveness (i.e., Ehrhart, 2004; Tepper et al., 2004). This

is definitely another promising path for future studies that should explore the linkage between GOCB, organizational climate(s), and work outcomes.

Another important finding of our study is the differences found between group-level OCB and individual-level OCB. An organizational climate that encourages OCB may increase the number of employees engaging in individual-level OCB and therefore have a larger impact on organizational effectiveness. Thus, a climate of OCB, group norms that enable and foster OCB, and generally higher levels of group-level OCB may be antecedents of individual-level OCB. Consequently, it is recommended that future studies will try to support this relationship empirically. Furthermore, our findings suggest that GOCB and individual-level OCB should be considered as two separate things that may be correlated. Following Bommer et al. (2003) and Ehrhart and Naumann (2004), the social learning theory (Bandura, 1986) and the social information-processing theory (Salancik & Pfeffer, 1978) can be useful in establishing the relationships, but also the distinction between individual-level and group-level OCB. These theories may imply that these are two separate but related constructs of the general good citizenship behavior in organizations. Our findings are much in line with these theories and support the construct and convergent validity of the proposed GOCB scores.

Beyond the theoretical contribution of our study for future research on OCB and organizational climate, it may as well offer some practical advantages. These advantages are mainly in the context of data collection and the field study. A closer look into the empirical approach to measuring individual-level OCB reveals that most of the existing studies have used one of three methods: (a) obtaining managers' reports on employees' activities and behaviors (i.e., Organ & Konovsky, 1989; Vigoda, 2000; Williams & Anderson, 1991), (b) obtaining peer assessments of fellow workers from employees (i.e., Bommer et al., 2003; Morrison, 1994), and (c) using self-assessments by organizational members of their own activities at work (i.e., Organ, 1988; Pond et al., 1997; Robinson & Morrison, 1995). In sum, the majority of the studies asked respondents to evaluate either their own or other individuals' behaviors. Although the traditional approaches to the understanding and measurements of OCB provide useful information about employees' willingness to engage in voluntary workplace activities, they all suffer from various weaknesses and limitations. For example, there are serious obstacles to obtaining the managers' agreement to take part in such a unique assessment process. Furthermore, this data, when acquired, is tainted by biases such as the "last event bias," the "dominant event bias," the "halo effect," and other personal predispositions. In addition, the data provided through peer or self-assessment may suffer from a lack of objectivity. In some cases, its collection may put a heavy burden on (a) supervisors who need to spend extra time assessing their

subordinates or (b) other participants who need to overcome psychological restraints when asked to evaluate fellow workers' activities objectively. In addition, the lack of knowledge of some of the assessors as to the actual OCB orientations of those they are evaluating may further compromise the data (Pond et al., 1997).

A group-level measure of OCB may help overcome these difficulties in several ways: (a) it shifts the burden of assessments from supervisors or co-workers to the employees themselves and thus increases the flexibility of the researcher, (b) it may increase the willingness of organizations to take part in such research efforts and increase the participants' response rate, (c) it uses an anonymous technique that can never be applied fully in conventional individual-level studies of OCB, and (d) it may minimize the likelihood of objectivity bias, as the referent is not one's self or any other individual but the "organization" in general. Thus, the validity and reliability tests for GOCB that were conducted here testify to its practical benefits. They offer researchers with a simple and easy-to-use research tool that may be compared with the original and/or traditional scales of OCB on the individual level.

Finally, what advice might we give principals on the basis of this research? As working under competitive and complex circumstances becomes an essential feature of educational systems, the success of schools fundamentally depends on teachers' willingness to go above and beyond the call of duty to attain their school's objectives and goals. The present study implies that the organization's characteristics and practices play a crucial role in teachers' willingness to engage in OCB. Teachers who do or do not display OCB do not do so in a vacuum, and the organizational context most likely serves to encourage or discourage them (DiPaola & Tschannen-Moran, 2001; George & Jones, 1997). By specifying behaviors that are deemed important in the organization, principals define the "shoulds" and the "oughts" of organizational life (Veiga, Lubatkin, Calori, & Very, 2000). Accordingly, by emphasizing the values of collaboration and social responsibility, principals may encourage the spread of goodwill, and provide opportunities for teachers to engage in the kind of OCB that makes the difference between a mediocre school and an excellent school (Somech & Bogler, 2002).

No study is free of limitations, and therefore several weaknesses of our study should be noted. First, we measured GOCB using employees' assessments but did not compare these assessments to any other evaluation of GOCB. Thus, future studies should try to compare employees' perceptions of GOCB with supervisors' perceptions of GOCB or to clients' perceptions of OCB and by so doing further support the scores' validation. Moreover, despite the encouraging finding that GOCB can be treated as a property of the group, a finding supported by the high values of the within-group agreement indexes

(r_{wg} , ICC) (Chan, 1998), it is important to note that the validation of the GOCB construct was at the individual level of analysis, due to our limited sample (13 schools). Future research that uses the group or the school level as the unit of analysis is encouraged to determine whether GOCB is a collective phenomenon. Third, the study is not completely free of common method bias, as at least several variables were measured using a single source (i.e., GOCB, job satisfaction, intentions to leave, organizational politics, participation in decision making) and thus may result in such a bias. In addition, correlational results are known to suffer from nested bias and misestimated standard errors. Fourth, our study was based on a relatively homogeneous sample of teachers. Although this in itself is not a weakness, the validity and reliability of the scores can be reconstructed and reconfirmed if similar results are obtained when other samples that are more heterogeneous are used. In the same vein, this study relied on an Israeli sample, and therefore, its comparison with other samples, for example from North American settings, is limited. Nonetheless, cultural indicators may prove useful in future studies as well, and therefore our unique cultural setting may turn out to be an advantage after all. Finally, due to the research design that did not allow a longitudinal perspective or a comparison among similar research tools, another form of a reliability test, namely a test of stability over time, was not applied in this study. We suggest, therefore, that future studies further examine the stability of the GOCB measure as recommended by Neuman (2003).

All in all, the findings of this study are encouraging and, as we had hoped, suggest directions for future elaboration on the nature of OCB as reflecting the “good soldier syndrome” in organizations (Organ, 1988), its characteristics and impact on organizational climate, culture, and outcomes, this time from a group-level viewpoint. GOCB is suggested as another concept in the realm of OCB and may have added value for the study of many administrative systems, beyond the educational one. We join recent studies in arguing that shifting our discussion from “the good soldier syndrome” to “the good platoon syndrome” may enrich the professional and theoretical discussion of this exciting phenomenon. Techniques traditionally used to measure OCB on the individual level have their advantages and disadvantages, but they need to be developed into a direct indicator of group norms, group climate, and perhaps also organizational culture that portray the good citizenship atmosphere in organizations. The collective, group-level and system approach adds to our toolbox for assessing OCB and overcomes some of the weaknesses and limitations inherently rooted in traditional measurements of this behavior on the individual level. However, more studies are needed to enhance its solidity and contribution to the field of OCB.

NOTE

1. Full details about the Exploratory Factor Analysis for the Organizational Citizenship Behavior scale are available directly from the authors.

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