Teachers’, school staff’s and parents’ efficacy beliefs as determinants of attitudes toward school

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Self- and collective efficacy beliefs were examined as correlates of attitudes toward school of teachers, school staff, and parents. 726 teachers, 387 staff members, and 1994 parents from 18 junior high schools in Milan and Rome, Italy, were administered questionnaires assessing self-efficacy beliefs, perceptions about colleagues’ behavior, collective efficacy beliefs, affective commitment and job satisfaction of teachers and school staff and parents satisfaction with school.

Path analyses corroborated a conceptual model in which self- and collective efficacy beliefs represent, respectively, the distal and proximal determinants of affective commitment and job satisfaction for teachers and staff and of satisfaction with school for parents. Perceptions that teachers, staff and parents hold about the behavior of their colleagues largely mediated the links between self- and collective efficacy beliefs.

Collective efficacy beliefs, in turn, largely mediated the influence that self-efficacy beliefs and perceptions of school constituencies’ behaviors exert on attitudes toward school of teachers, staff and parents.

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Generally, people do not undertake tasks that they feel are beyond their abilities. Instead, the more convinced they are of being able to deal effectively with various situations, the more they seize opportunities, thus increasing the probability of their success. Beliefs that one is able to master specific tasks lead to perceiving task difficulties as challenges rather than insurmountable obstacles. These beliefs prevent preoccupations and ruminations from interfering with carrying out plans and instead help one focus on problems and the best use of one's capacities and the available resources. Unless people believe that they can produce desired outcomes, they have little incentive to pursue ambitious goals and to persevere in the face of difficulties. It follows that the greater one believes in one's self-efficacy in a context, the greater one will experience affective commitment and satisfaction with that context. The main goal of this study was to examine efficacy beliefs as correlates of affective commitment and job satisfaction in the school setting.

The literature documents widely the pervasive influence of self-efficacy beliefs and corroborates social cognitive theory that places these beliefs at the roots of human agency (Bandura, 2001). Controlling for levels of talent and opportunity, self-efficacy beliefs represent a significant advantage for achieving success in many contexts of human action (Bandura, 1997; Maddux, 1995), including school, sports, work, and health functioning (Feltz, 1988; Holden, 1991; Lerner & Locke, 1995; M ulton, Brown, & Lent, 1991; Pajares, 1996; Schunk, 1995; Schwarzer, 1992; Stajkovic & Luthans, 1998; Weinberg, 1986).

Self-efficacy beliefs, more than any other human expression, attest to the characteristic of persons to reflect on themselves and to regulate their conduct in agreement with their own personal goals and standards in order to orchestrate their relationships. Self-reflection and self-regulation set the premises for carrying out a proactive role in the world, namely to take advantage of one's own potentials as well as of contingent opportunities. Experiences provide the conditions to transform potentials into abilities and thus to certify their reach and effectiveness. Self-efficacy beliefs, while accounting for what has been learned from past experience, determine the extent to which a person will make things happen to reach one's own standards and goals (Bandura, 1986, 1997; Caprara & Cervone, 2000).

Moving to the level of organizations, the productive success of an organization depends upon both its capacity to recruit and assess individuals' sense of efficacy, and its capacity to promote among people the beliefs which grant the best use of individuals' competencies by exposing individuals to those experiences that may nourish a sense of mastery (Bandura, 1997; Gist, 1987, 1989). However, individuals' self-efficacy beliefs might be not sufficient by themselves to ensure the success of an organization when success also depends on the capacity of constituents to operate in synergy. In many contexts, organizational achievements result from sharing knowledge and responsibility, multiple interconnections, and mutual obligations. In contexts in which collective attainments go beyond individual talents and achievements, the direct connections between personal efficacy and group performance may be muted (Stajkovic & Luthans, 1998).

In contexts of interdependence, as in many organizational contexts, success also depends on beliefs of collective efficacy, namely the practices of acting together and the beliefs that sustain these practices. When an organization's functioning largely rests upon people working cooperatively to achieve shared goals via differentiation of roles and an elaborate system of communications, strong linkages between individual and collective effort are critical (Galbraith, Lawler, & Associates, 1993; Locke, 1999; Shamir, 1990; West, Borrill, & Unsworth, 1998). Beliefs in the collective efficacy of one's groups and of the organization as a whole are critical determinants of both teams' effectiveness and organizational success (Bandura, 1997, 2000, 2001; Stajkovic & Lee, 2001; Zaccaro, Blair, Peterson, & Zazanis, 1995).

Collective efficacy refers to judgments that people make about a social system (family, team, organization or community) and its level of behavior and effectiveness in specific domains of action.

Efficacy beliefs operating at the collective level correspond to emerging group-level properties of concerted action, separate from individuals' self-efficacy and not reducible to their sum although not independent from "the beliefs and actions of the individuals who make up a social system" (Bandura, 2001, p.14).
Determinants of Attitudes Toward School

Just as self-efficacy beliefs influence individual choices, motivation, actions, and performance, the sense of collective efficacy influences the nature of collective action. Beliefs of collective efficacy affect "the sense of mission and purpose of a system, the strength of common commitment to what it seeks to achieve, how well its members work together to produce results, and the groups' resiliency in the face of difficulties" (Bandura, 1997, p. 469). On these premises, the influence of collective efficacy on group performance and achievement has been corroborated in educational, athletic, socio-political, organizational, urban-community and laboratory settings (Bandura, 1993, 1997; Borgogni, 2001; Earley, 1994; Feltz & Lirgg, 1998; Fernández-Ballesteros, Diez-Nicolás, Caprara, Barbaranelli, & Bandura, 2002; Goddard, 2001; Hodges & Carron, 1992; Little & Madigan, 1997; Mullen & Copper, 1994; Prussia & Kinicki, 1996; Sampson, Raudenbush, & Erals, 1997; Spink, 1990; Stajkovic & Lee, 2001). As reported by Bandura, "the findings taken as a whole show that the stronger the perceived collective efficacy, the higher the groups' aspirations and motivational investment in their undertakings, the stronger their staying in power in the face of impediments and setbacks, the higher their morale and resilience for stressors, and the greater their performance accomplishments" (2001, p.14).

Further research is needed to account fully for the source of collective efficacy and the mechanism through which it operates on outcomes and its impact in a variety of situations.

Self- and collective efficacy beliefs as determinants of attitudes and motivation toward school: A conceptual model

Consistent with previous findings (Caprara, Borgogni, Barbaranelli, & Rubinacci, 1999), the present study examined the generalizability of a conceptual model in which teachers' and staff members' self- and collective efficacy beliefs are hypothesized to be the main determinants of their attitudes toward the school. We posited affective organizational commitment and job satisfaction of teachers and staff as indicators of personnel's attitudes towards school. Both measures have been referred to as important and interrelated elements of work motivation and performance (Bishop & Scott, 2000; Cranny, Smith, & Stone, 1992; Iaffaldano & Muchinsky, 1985; Mathieu & Zajac, 1990; Meyer, 1997; Meyer & Allen, 1991; Mowday, Steers, & Porter, 1982; Ostroff, 1992; Petty, McGee, & Cavender, 1984). We reasoned that it is unlikely that teachers and staff will maintain their affective organizational commitment and feel satisfied with their own job in schools that they perceive to be incapable of pursuing a collective mission. Also, we hypothesized that parents' self- and collective efficacy beliefs about school will influence their satisfaction with the school. We reasoned that it is unlikely that families will feel satisfied with schools that they perceive are incapable of functioning effectively as a group.

We further hypothesized that mutual perceptions teachers, staff and parents hold of each other's and of principal's behavior, namely of the extent to which each school constituency fulfills its role obligations, are critical to sustain their beliefs in the collective efficacy of the school as a whole, and thus that these perceptions will partially mediate the link between self- and collective efficacy beliefs. On the one hand we reasoned that when the goal requires group action, strong self-efficacy beliefs may lead an individual to behave in ways that improve the performance of others within the system, especially as the individual perceives that performance. On the other hand we reasoned that perceptions that each individual holds of his or her colleagues' behavior will exert a notable influence on the judgment that each member makes about the efficacy of the whole system. Direct path of influence between self-efficacy beliefs and collective efficacy beliefs and between judgments of others' behavior and collective efficacy beliefs are also plausible and not inconsistent with this hypothesis of partial mediation.

Figure 1 presents the posited structural model for individual teachers and staff specifying the paths of influence among: (a) self-efficacy beliefs; (b) perceptions of others' behavior to meet their role obligations; (c) collective efficacy beliefs; and d) affective commitment to school and job satisfaction.
Figure 1. Conceptual model for teachers and staff

Figure 2 presents the posited structural model for parents specifying the paths of influence among: (a) self-efficacy beliefs; (b) parents’ perceptions of other school constituencies’ behavior to meet their role obligations; (c) collective efficacy beliefs; and (d) satisfaction with the school functioning.

Figure 2. Conceptual model for parents

These models rest upon the following hypotheses:

Hypothesis 1. The beliefs that people hold about their own capacity to meet the requirements of their individual roles as teacher, staff or parent have a pervasive influence on outcomes. Self-efficacy beliefs directly influence: (1) an individual’s perception of colleagues’ behavior in dealing with their tasks; (2) perceptions of the collective efficacy of the school as a whole; and (3) affective commitment to school and job satisfaction for teachers and staff and satisfaction with the functioning of the school for parents.
Hypothesis 2. The degree to which colleagues and other constituencies of the school are perceived to behave in conformity with what is expected of them for the well functioning of the school will influence one's beliefs about the collective efficacy of the school, as well as partially mediating the effect of self-efficacy beliefs on collective efficacy beliefs.

Hypothesis 3. Beliefs about the collective efficacy of the school have an impact on one's affective commitment to school and job satisfaction of teachers and staff as well as satisfaction of families with the good functioning of the school.

The current study

In 1999, a new bill passed in the Italian legislature that completely reformed the Italian educational system, assigning full autonomy in both the management of financial resources and in the design and implementation of educational projects to individual schools, including teachers, staff members (clerical, administrative), principals, and parents. In so doing the legislator entitled each school, through its constituencies, with the responsibility of meeting the specific educational needs of its own children. This responsibility is similar to the American reform toward site-based management of schools. The setting is therefore an ideal one in which to study the roles of individual and collective efficacy in perceptions of outcomes, according to the hypotheses outlined above.

Method

Participants

Teachers. Teachers were recruited from 18 junior high schools, 9 in Milan and 9 in Rome. 726 teachers (74% of the total number in these schools) agreed to participate. 83% were females and 17% males; 5% were 25 to 34 years old, 34% were 35 to 44 years old, 55% were 45 to 54 years old, and 7% were over 54 years old.

Staff. Staff personnel were recruited from the same 18 schools and an additional 18 schools located nearby each of the original schools, in order to bolster the sample size. 387 staff members (68% of the total non-teaching personnel [caretakers and clericals] in these schools) agreed to participate. 74% were females, 26% were males; 75.9% were school caretakers, 25% were clericals; 6% were 25 to 34 years old, 29% were 35 to 44 years old, 33.7% were 45 to 54 years old, and 31.3% were over 54 years old.

Parents. 1,994 parent relatives of 7th grade students of the original 18 junior high schools participated (73% of the parents who have been invited to participate). 66% were mothers, 20% were fathers, 1% were grandparents, and the remaining 13% did not report any information.

Procedure

Principals of the above 18 junior high schools took care of the distribution, collection, and transmission of data to the first author at the “Centro Interuniversitario per la Ricerca sulla Genesi e sullo Sviluppo delle Motivazioni Prosociali e Antisociali” of the University of Rome. Principals were committed to gain widest consensus and participation to the research on a voluntary, anonymous basis.

Teachers, staff and families received a questionnaire along with a letter of invitation on behalf of the first author, explaining the research objectives and granting the full respect of privacy. Due to the small number of staff members in the earlier 18 junior high schools,
principals of these schools also extended the invitation to participate to the research to staff of similar junior schools in their neighbourhood. Due to the large number of families in each school, only parents of 7th grade students were invited to participate.

**Instruments**

The questionnaires used in the research comprised 47, 45 and 68 items in the case respectively of teachers, staff and parents. Most of the items administered to teachers had been generated in previous research to assess teachers’ self- and collective efficacy beliefs, perceptions of colleagues and of other school’s constituencies behavior, affective commitment to school, and job satisfaction. Items to assess staff and parents’ self- and collective efficacy beliefs as well as their perceptions of colleagues and other school’s constituencies behavior were selected from a larger number generated for the present research following interviews with staff personnel and parents, as previously done with teachers. Items to assess affective commitment to school and job satisfaction were adapted from well established instruments.

For each item, respondents rated, using a 7-point response format, their agreement with the statement (from 1=“Strongly disagree”, to 7=“Strongly agree”). The questionnaire measured the following constructs:

**Self efficacy.** This variable reflects respondents’ beliefs about being able to cope effectively with tasks, difficulties, and problems encountered in the different settings of their work (in case of teachers and staff), and the parent’s beliefs of being able to cope with tasks, difficulties and problems related to his or her child’s scholastic activities.

**Perceptions of school constituencies’ behavior.** These variables reflect the degree to which teachers, staff and parents agree that others are behaving in conformity with what is expected of them for the well functioning of school. Separate variables were derived for the principal, teachers, other school personnel, and families and students. Items reflect what counts for teachers, staff and parents, namely aspects of others’ performance directly related to one’s own performance. A principal component analysis with oblique Oblimin rotation performed on the items developed to measure these variables revealed a clear 4-factor structure in all three data sets (teachers, staff, parents). The four factors were: principal, teachers, staff, and families and students.

**Collective efficacy.** This variable concerns the respondents’ beliefs that the school as a whole is capable of coping with tasks, difficulties and problems encountered in the different settings of scholastic activity.

**Affective commitment to school (only for teachers and staff).** This variable reflects teachers’ and staff’s attachment to goals and values of their school. This variable was not measured in parents. The 6 items used to measure this variable were selected and adapted from the Italian version (Pierro, Lombardo, Fabbri, & Di Spirito, 1995) of Allen and Meyer’s scale (1990).

**Job satisfaction (only for teachers and staff).** This variable reflects teachers’ and staff’s satisfaction with their job, role, opportunities for professional development, and work environment. The 4 items used to measure this variable were selected and adapted from the Italian version (Borgogni, 2001) of the Job Descriptive Index (Smith, Kendall, & Hulin, 1969).

**Satisfaction (only for parents).** This variable measures how much parents are satisfied with their child’s school. The 12 items used to measure this variable were developed considering school’s services, educational and extracurricular activities, and relationships among the different constituencies.
The appendix summarizes the number of items and the psychometric properties of the scales used, and presents sample items.

Results

Table 1 presents the means and standard deviations for the different sets of variables in the three samples, and correlation coefficients among the various scales. Differences in means of the measured variables on school level have been examined by means of several ANOVAs where the school was considered as the independent variable. In the teachers sample all variables resulted significantly different across school at a probability level of at least .01, with an average effect size of $\eta^2=.13$. In the staff sample all variables resulted significantly different across school at a probability level of at least .05, with an average effect size of $\eta^2=.21$. In the parent sample all variables resulted significantly different across schools at a probability level of at least .001, with an average effect size of $\eta^2=.05$, except for personal efficacy that did not resulted statistically significant.

| Constructs                      | Teachers | M   | SD  | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   |
|--------------------------------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1) Personal efficacy           | 5.53     | 0.71| 1.00| .16 | .24 | .35 | .31 | .40 | .40 | .50 |
| 2) Principal                    | 5.56     | 1.16| 1.00| .24 | .18 | .31 | .54 | .42 | .42 |
| 3) Colleagues (teachers)        | 5.65     | 1.00| 1.00| .27 | .30 | .52 | .34 | .38 |
| 4) Families and students        | 4.70     | 1.08| 1.00| .26 | .42 | .35 | .42 |
| 5) Staff                        | 5.12     | 1.07|     |     | .45 | .32 | .41 |
| 6) Collective efficacy         | 5.30     | 0.91|     |     |     | .54 | .60 |
| 7) Affective commitment         | 5.46     | 1.09|     |     |     | .69 |
| 8) Job satisfaction             | 5.51     | 0.99|     |     |     |     |     |

| Constructs                      | Staff    | M   | SD  | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   |
|--------------------------------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1) Personal efficacy           | 6.03     | .83 | 1.00| .26 | .03+| .49 | .21 | .39 | .51 | .38 |
| 2) Principal                    | 5.43     | 1.37| 1.00| .27 | .29 | .33 | .57 | .49 | .57 |
| 3) Teachers                     | 4.51     | 1.57| 1.00| .16 | .22 | .30 | .48 |
| 4) Families and students        | 4.93     | 1.10| 1.00| .22 | .42 | .48 | .51 |
| 5) Colleagues (staff)           | 5.51     | 1.46|     |     | .38 | .42 | .58 |
| 6) Collective efficacy         | 5.35     | 1.25|     |     |     | .65 | .60 |
| 7) Affective commitment         | 5.65     | 1.16|     |     |     |     | .77 |
| 8) Job satisfaction             | 5.40     | 1.35|     |     |     |     |     |

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<tr>
<th>Constructs</th>
<th>Parents</th>
<th>M</th>
<th>SD</th>
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<th>2</th>
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<td>5.51</td>
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<td>2) Principal</td>
<td>5.45</td>
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<td>.39</td>
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<td>3) Teachers</td>
<td>5.58</td>
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<td>.75</td>
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<td>4) Families and students</td>
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<td>.33</td>
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<td>5) Staff</td>
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<td>1.07</td>
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<td>.50</td>
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<td>6) Collective efficacy</td>
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<td>7) Satisfaction</td>
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Note. Correlation coefficients are all statistically significant ($p<.01$) except those noted (+: $p>.05$). Means and standard deviations are those of “a-priori” scores. Correlations are those of factor scores.
Paths of influence

The posited structural model was tested on the covariance matrix using the EQS program (Bentler, 1995). The data gathered in this study have a clear multi-level or hierarchical structure. Teachers, staff, and parents are all nested within their respective school. It is reasonable to believe that individuals belonging to the same school tend to be more similar on many important variables than individuals from different schools (e.g., teachers of the same school tend to have perceptions of other school constituencies more similar than teachers from different schools).

It is possible to have a precise measure of the "multi-levelness" of data through the *intra-class correlation* coefficient (ICC), which is a measure of group homogeneity, i.e. of the average correlation between variables measured on individuals (i.e., teachers, staff, parents) from the same school. The ICC is also a measure of the proportion of variance between schools or of the variance explained by the grouping structure in multi-level data. In our data the ICC ranged from .01 to .07 for teachers, from .05 to .19 for staff, and form 0 to .07 for parents. According to the standards adopted by other researchers (e.g., Stevens, 1990), these values can be considered as indices of a moderate grouping effect, especially for staff. It would be inappropriate, if not misleading, to ignore the hierarchical data structure.

Muthén (1994) proposed a strategy of performing multi-level analysis within the framework of Structural Equation Modelling. However, this strategy requires large sample sizes at the aggregate level to provide stable parameters’ estimates. As noted by Heck and Thomas (2000) “as many as 50 to 100 groups might be required, with preference to sampling fewer individuals within groups and more groups” (p. 120). Because we had a limited number of level-two units (i.e., schools), a different strategy to take account of hierarchical data structure had to be pursued. This strategy consisted of analyzing only within-group variability, i.e. variance across individuals within groups. To this aim, the pooled within-sample covariance matrix (Spw) is analyzed instead of the total covariance matrix: this matrix represents a sample unbiased estimate of the population covariance matrix of the individual deviations from their group means. This matrix accounts appropriately for individuals-level variability, but it does not tell anything about schools-level variability: however, the former is not confounded with the latter. This strategy is consistent with Härnqvist’s (1978) suggestion for multi-level exploratory factor analysis, and is one of the steps suggested by Muthén (1994) and Hox (1993) for multi-level structural equation modelling.

*Teachers.* A first model was tested according to the theoretical model specified in Figure 1. This model did not fit the data very well. To improve model fit, non-significant paths were fixed to 0 and new paths were posited. The model was run again, yielding a better fit. The final model is shown in Figure 3. The final model showed a non-significant chi-square, $\chi^2(3, N=699)=3.33$, $p=.35$, a Non-Normed Fit Index (NNFI) of .99, a Comparative Fit Index (CFI) of 1.0, and a Root Means Square Error of Approximation (RMSEA) of .012. The model explained 62% of collective efficacy variance, 38% of affective commitment to school variance and 48% of job satisfaction variance. In this model, self efficacy was directly affecting all considered variables. Perceptions of other constituencies' competence influenced positively collective efficacy, which in its turn influenced both affective commitment to school and job satisfaction. Other significant paths of influence directed to affective commitment to school were those stemming from perceptions of the principal's behavior and of families and students participatory behavior. Other significant paths of influence to job satisfaction were those stemming from perceptions of principal's behavior, families and students participatory behavior, and staff's behavior. Perceptions of various school constituencies' behavior were moderately correlated (ranging from .21 to .29), while affective commitment to school and job satisfaction were highly correlated.
Figure 3. Final model for teachers

Note. The numbers refer to standardized path coefficients. All coefficients are significant.

Staff. A first model was tested according to the conceptual model specified in Figure 1. This model did not fit the data very well. In fact, several paths were non-significant and other paths had to be specified to achieve a better fit. The final model is shown in Figure 4. This model showed a non significant chi-square, $\chi^2(4,N=331)=6.62$, $p=.16$, a Non-Normed Fit Index (NNFI) of .98, a Comparative Fit Index (CFI) of .99, and a Root Means Square Error of Approximation (RMSEA) of .045. The model explained 51% of collective efficacy variance, 54% of affective commitment to school variance, and 65% of job satisfaction variance. In this model, self-efficacy was affecting directly all considered variables, but job satisfaction and perception of teachers' behavior. Perception of other constituencies' behavior influenced positively collective efficacy, which in its turn influenced both affective commitment to school and job satisfaction. Other significant paths of influence directed to affective commitment to school were those stemming from perceptions of colleagues' behavior, of families and students participatory behavior, and of teachers' behavior. Other significant paths of influence directed to job satisfaction were those stemming from perceptions of school constituencies' behavior. Correlations among perceptions of various school constituencies' behavior were moderate (ranging from .13 to .30). Affective Commitment to school and job satisfaction were highly inter-correlated.

Parents. A first model was tested according to the conceptual model specified in Figure 2. This model did not fit the data very well. In fact, several paths were non-significant and others had to be specified to achieve a better fit. The final model is shown in Figure 5. This model showed a non significant chi-square, $\chi^2(2,N=1918)=1.17$, $p=.56$, a Non-Normed Fit Index (NNFI) of 1.0, a Comparative Fit Index (CFI) of 1.0, and a Root Means Square Error of Approximation (RMSEA) of .0. The model explained 73% of the collective efficacy variance, and 80% of satisfaction with the school variance. In this model, self-efficacy was influencing positively perceptions of school constituencies' behavior. In turn, these variables influenced positively collective efficacy, which influenced satisfaction with the school. Perceptions of various constituencies' behavior exerted a significant and direct influence on satisfaction with the school, in addition to the influence exerted through the mediation of collective efficacy. Correlations among perceptions of various constituencies' behavior ranged moderate (ranging from .26 to .43).
Alternative models. Three alternative models were tested. Results of these models are summarized in Table 2. In the first alternative model the flow of influence was the following: satisfaction/commitment $\rightarrow$ self-efficacy $\rightarrow$ perceptions of school constituencies' behavior $\rightarrow$ collective efficacy. All the paths tested in the posited models were specified; these paths were reversed in the case of satisfaction and commitment, but simply replicated whenever these two variables were not considered. The model resulted in a bad fit in all three samples. In the second alternative model the flow of influence was the following: self-efficacy $\rightarrow$ perceptions of school constituencies' behavior $\rightarrow$ satisfaction/commitment $\rightarrow$ collective efficacy. All the paths tested in the posited models were specified; these paths were reversed in the case of satisfaction/commitment vs. collective efficacy, but simply replicated in all other cases. The model resulted in a bad fit in teacher and staff but was consistent with empirical data in parent sample. In the third alternative model the flow of influence was the following: self- efficacy $\rightarrow$ collective efficacy $\rightarrow$ perceptions of school constituencies' behavior $\rightarrow$ satisfaction/commitment. All the paths tested in the posited models were specified; these paths were reversed in the case of perceptions of school constituencies' behavior vs. collective efficacy, but simply replicated in all other cases. The model resulted in a bad fit in staff and parents but
was consistent with empirical data in the teachers sample. From these results, it is clear that the network of paths of influences that we posited ultimately fits the data best and is the only model that is corroborated across all three informant sources.

Table 2
Fit indexes for alternative models

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<th>Model</th>
<th>Chi 2</th>
<th>NNFI</th>
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<tr>
<td>4→1→2→3</td>
<td>73.65, p&lt;.001(3)</td>
<td>.68</td>
<td>.97</td>
<td>.18(.15,.22)</td>
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<td>1→2→4→3</td>
<td>28.27, p&lt;.001(3)</td>
<td>.89</td>
<td>.99</td>
<td>.11(.08,.15)</td>
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<td>1→3→2→4</td>
<td>3.33, p=.35(3)</td>
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<tr>
<td>4→1→2→3</td>
<td>13.10, p&lt;.01(3)</td>
<td>.92</td>
<td>.99</td>
<td>.10(0,.16)</td>
</tr>
<tr>
<td>1→2→4→3</td>
<td>39.97, p&lt;.001(4)</td>
<td>.78</td>
<td>.97</td>
<td>.17(12,.21)</td>
</tr>
<tr>
<td>1→3→2→4</td>
<td>14.3, p&lt;.01(3)</td>
<td>.91</td>
<td>.99</td>
<td>.14(.06,.17)</td>
</tr>
<tr>
<td></td>
<td>Parents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4→1→2→3</td>
<td>373.9, p&lt;.001(2)</td>
<td>.50</td>
<td>.95</td>
<td>.31(.29,.34)</td>
</tr>
<tr>
<td>1→2→4→3</td>
<td>1.17, p=.56(2)</td>
<td>1.00</td>
<td>1.00</td>
<td>.00(0,.039)</td>
</tr>
<tr>
<td>1→3→2→4</td>
<td>317.8, p&lt;.001(2)</td>
<td>.58</td>
<td>.96</td>
<td>.29(.26,.31)</td>
</tr>
</tbody>
</table>

Note. 1=Personal Efficacy, 2=Perceptions of school constituencies' behavior, 3=Collective Efficacy, 4=Job-Satisfaction/Commitment (teachers and staff); 5=Satisfaction (parents). Under chi2 column degrees of freedom are in parentheses. Under RMSEA column 90% confidence interval limits are in parentheses.

Discussion

The results of the present study corroborate previous findings (Caprara, Borgogni, Barbaranelli, & Rubinacci, 1999) and support the generalizability of the hypothesized conceptual model. The posited structural model fit with the empirical data better than any other alternative model.

The impact of both self- and collective efficacy beliefs on school organization is supported by their links with variables that are meaningfully related to a nomological net of hypotheses. Self-efficacy beliefs exert a pervasive influence on the judgments that teachers, staff, and parents make about the behavior of their colleagues, other constituencies and their principal, as well as on the judgments that they make about the capacity of the school, as a whole system, to meet its institutional obligations, and ultimately on the affective commitment to school and job satisfaction of teachers and staff as well as on parents' satisfaction with school functioning.

Affective commitment to school and job satisfaction of teachers and staff may not always lead to a well-functioning school, but it is unlikely that a school will function well when these are lacking (Ostrov, 1992). Likewise, no one would contend that parents' satisfaction with the functioning of the school is a sufficient indicator of its effective functioning, however, parents' satisfaction is an important component of this functioning. As a whole, these findings corroborate the vast literature attesting to the impact of self-efficacy beliefs on work motivation, organizational attitudes, and school functioning (Bandura, 1997; Coladacari, 1992; Judge, Locke, Durham, & Kluger, 1998).

Collective efficacy beliefs proved to exert a notable influence in mediating the influence of self-efficacy beliefs on organizational attitudes of teachers and staff and on parents satisfaction. Perceptions of colleagues, of other constituencies' and of principal's behavior proved important in mediating the impact of self-efficacy beliefs on collective efficacy beliefs. These findings together represent a quite new contribution as they point to one of the mechanisms that may account for the links between self- and collective efficacy.
Likely, the perceptions that members of a social system hold about other members’ behavior are very important in determining the beliefs people hold about the efficacy of the social system as a whole. People have reason to believe in the efficacy of a social system if they trust the capabilities of its constituencies to perform their respective tasks effectively.

Likely perceptions that each constituency has of other constituencies’ performance and competence exert a unique impact on teachers’, staff’s and parents’ perceived collective efficacy of the school as a whole system, depending on the extent to which each person has access to the others’ performance and is directly affected by their competence.

In this regard it is noteworthy that the judgments the three groups make about the school’s principal’s behavior greatly influence their perceived collective efficacy of the school.

Our findings point to the different impact of colleagues on the judgments that teachers, staff, and parents make about the school’s collective efficacy, as well as on their attitudes toward the school. Whereas judgments about colleagues’ behavior affect the perceived collective efficacy of teachers more than of staff, the direct influence on affective commitment to school and job satisfaction of teachers is negligible whereas it is significant for staff.

Furthermore our findings attest to the crucial role parents play in sustaining teachers’ and school staff motivation. Judgments that teachers and staff make about parents’ behavior, namely their engagement in school activities influence their perceived collective efficacy of the whole school, and their affective commitment to school and job satisfaction.

Ultimately, judgments that parents make about other families’ behavior, namely their active involvement with school influence significantly the beliefs that they hold about school collective efficacy and the satisfaction that they report about its functioning.

Because perceived collective efficacy mediates the action of personal efficacy and of mutual judgments on affective commitment and job satisfaction of personnel as well as on satisfaction of users, intervention efforts should be targeted to promote collective efficacy to improve school functioning.

Because our findings suggest that a high portion of personnel’s and users’ confidence in the school’s efficacy depends on judgments that people make about the principal’s behavior, strengthening the performance and leadership by the principal is further recommended. Given that the principal in the Italian educational system has been assigned the responsibility to create the conditions for achieving the needed synergies of abilities and intentions that lie at the basis of collective efficacy, the expectations of teachers, staff, and parents are quite consistent with the order that has been fostered by the law. The task is to find the best ways to meet the challenges of the reform. To this aim, efficacy theory may be of great help in providing guidance to engage teachers, staff, and families in promoting the overall school functioning.

Appendix

Table A

Summary psychometric properties of the scales used

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Teachers</th>
<th>Staff</th>
<th>Parents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n. items</td>
<td>alpha</td>
<td>Var. expl</td>
</tr>
<tr>
<td>Personal efficacy</td>
<td>8</td>
<td>.80</td>
<td>42.7%</td>
</tr>
<tr>
<td>Principal</td>
<td>6</td>
<td>.91</td>
<td>18.9%</td>
</tr>
<tr>
<td>Teachers</td>
<td>6</td>
<td>.83</td>
<td>11.9%</td>
</tr>
<tr>
<td>Families and students</td>
<td>8</td>
<td>.89</td>
<td>17.5%</td>
</tr>
<tr>
<td>Staff</td>
<td>6</td>
<td>.79</td>
<td>10.3%</td>
</tr>
<tr>
<td>Collective efficacy</td>
<td>8</td>
<td>.86</td>
<td>51.5%</td>
</tr>
<tr>
<td>Affective commitment</td>
<td>6</td>
<td>.85</td>
<td>58.5%</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>4</td>
<td>.77</td>
<td>29.9%</td>
</tr>
<tr>
<td>Satisfaction with school</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note. Variance explained derived from a 1-factor solution. Variance explained derived from a 4-factor solution. ‘clericals,’ ‘care-takers.’
Sample items of the scales

1) Personal efficacy

Teachers: I can get even the most resistant and difficult students to attend to the class work
Staff: I can efficaciously cope with unexpected difficulties that interfere with normal activities
Parents: I can actively participate to school’s initiatives for children’s development and care

2) Perceptions of school constituencies’ behavior

2.1) Principal

Teachers: The principal is well updated of new strategies of public-school policy
Staff: The principal treats fairly all the school personnel
Parents: The principal accepts the parents’ proposals for the school’s improvement

2.2) Teachers

Teachers: In all faculty meetings my colleagues make all efforts to come to shared decisions
Staff: Teachers give the due consideration to the opinions of the non-teaching personnel for the good functioning of the school
Parents: Teachers have a positive dialogue with parents

2.3) Families and students

Teachers: Parents are sensitive and collaborative to solve class problems; The students communicate openly with teachers and respect their authority
Staff: Parents treats with respect and courtesy the school personnel; The students count upon non-teaching personnel to solve many problems
Parents: Parents actively participate to the school’s life to contribute to solve its problems; The students communicate openly with teachers

2.4) Staff

Teachers: The school-caretakers and the secretary are flexible in their work organization to facilitate teaching activities
Staff: My colleagues are usually collaborative
Parents: The school-caretakers and the secretary are kind and collaborative

3) Collective efficacy

Teachers: Our school can get a positive image within the community
Staff: Our school can get a positive image within the community
Parents: Our school can get a positive image within the community

4) Affective commitment

Teachers and Staff: I enjoy discussing my school with people outside it

5) Job satisfaction

Teachers and Staff: I am fully satisfied with my job

6) Satisfaction with school

Parents: I am satisfied of my son/daughter’s scholastic education

References


On a examiné les convictions de self et collective efficacy comme déterminants de la satisfaction dans le travail des professeurs et du personnel de l'école et la satisfaction des parents à l'égard de l'école. On a administré à 726 professeurs, à 387 membres du personnel de l'école, et à 1994 parents provenants de 18 écoles secondaire du 1er cycle de Milan et Rome (Italie), un questionnaire pour évaluer les convictions de self-efficacy, les perceptions de comportement des collègues, les convictions de collective efficacy et la satisfaction dans le travail à l'égard de l'école.

La path analysis a confirmé la validité du modèle conceptuel dans le quel les convictions de self et collective efficacy représentent, respectivement, les déterminants distaux et prochains du affective commitment et de la satisfaction dans le travail pour les professeurs et les membres du personnel, et la satisfaction avec l'école pour les parents.

Les perceptions que les professeurs, les membres du personnel et les parents ont envers le comportement de leurs collègues s'interposent largement entre les convictions de self et les convictions de collective efficacy. Les convictions de collective efficacy à leur tour, s'interposent largement entre l'influence que les convictions de self-efficacy et le perceptions de comportement de qui travaille dans l'école exercent sur l'affective commitment et la satisfaction dans le travail.

Key words: Efficacy beliefs, Work attitudes, School.

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