Relations of Perceived Social Efficacy and Social Goal Pursuit to Self-Efficacy for Academic Work

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Successful functioning in a classroom setting requires students to interact effectively and form positive social relationships both with teachers and peers. Self-efficacy for success in schoolwork, therefore, should depend in part on students' perceptions of their social efficacy and on their endorsement of goals to be responsible class members and to form intimate peer relationships. Survey data from 753 fifth-grade students indicated that girls felt more efficacious in their interactions with their teachers and endorsed both responsibility and intimacy goals more strongly than did boys. No gender difference was found for social efficacy with peers. Hierarchical regression analysis indicated that students' perceptions of their social efficacy both with teacher and peers and their endorsement of responsibility goals were related significantly to their academic efficacy after accounting for prior achievement and gender. These findings indicated that such social perceptions are important for students' academic progress and that teachers should pay serious attention to students' social relationships in the classroom.

Self-efficacy refers to an individual's beliefs about capabilities to organize actions, exert control over performance, and achieve goals in particular situations (Pintrich & Schunk, 1996; Schunk, 1990, 1994). Students' self-efficacy for their schoolwork (academic efficacy) has been associated with many important academic outcomes, including motivation, cognitive en-

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gagement, and performance (e.g., Pintrich & De Groot, 1990; Schunk, 1994). Students who feel efficacious about their ability to master their schoolwork are more likely to select challenging activities, expend effort, persist when tasks become difficult, be resilient to failure or setbacks (Bandura, 1990, 1993; Schunk, 1991, 1994), have high cognitive engagement, use effective task strategies, and regulate their own learning (Pintrich & De Groot, 1990; Pintrich & Schrauben, 1992). Greater academic efficacy also has been related positively to feelings of being in control and related negatively to anxiety and depression (Bandura, 1993). Finally, students who have high self-efficacy for their schoolwork tend subsequently to have higher achievement at school (Bandura, 1993; Pintrich & De Groot, 1990; Schunk, 1994).

Extant research involving students' perceptions of their self-efficacy for academic tasks (e.g., Pintrich & De Groot, 1990; Schunk, 1994) has focused primarily on the academic and intellectual characteristics of students and their perceptions of tasks and of the context. For example, a history of success, perceptions that tasks are challenging but manageable, and perceptions of having received less teacher assistance have been related positively to academic efficacy (Bandura, 1990; Schunk, 1983). Academic efficacy has been associated with students' goal orientations. Students who feel more efficacious about their schoolwork are more likely to endorse academic task goals (i.e., being oriented to mastery and improvement) and perceive the learning environment as emphasizing task goals (Ames & Archer, 1988; Midgley, Anderman, & Hicks, 1995; Park, Pintrich, & Midgley, 1992). Conversely, more efficacious students are less likely to hold performance goals (i.e., being oriented to doing better than others or surpassing normative standards) or perceive the learning environment as emphasizing performance goals (Ames & Archer, 1988; Midgley et al., 1995; Park et al., 1992). In contrast to the emphasis on academic correlates, relations between academic efficacy and social aspects of school, such as students' self-efficacy for interactions with others (social efficacy) and their social goals, have received much less consideration. This lesser attention to social factors appears counter to the seemingly general acceptance that students' performance at school is dependent on "interactions of social, instructional, and learner factors" (Schunk, 1990, p. 3). The purpose of this study was to investigate the association between students' perceived academic efficacy and both their perceived social efficacy and their social goals.

Social Efficacy and Academic Outcomes

The abilities to make new friends, form positive peer relationships, be accepted by peers, and behave appropriately in school have been found to be

important for success at school. Those social skills or competencies have been found to be related positively to school adjustment (Berndt & Keefe, 1992, 1995; Ladd, 1990; Ladd & Price, 1987) and academic outcomes, such as achievement (Alexander & Entwisle, 1988; Ladd, 1990; Wentzel, 1991b) and intrinsic motivation (Patrick & Townsend, 1995), and related negatively to subsequent school dropout (Hymel, Comfort, Schonert-Reichl, & McDougall, 1996; Ollendick, Weist, Borden, & Greene, 1992; Parker & Asher, 1987). It is important to note that despite the presence of positive relations between academic and social measures, recent research has indicated that competencies in both domains represent empirically and conceptually distinguishable domains. Many studies (e.g., Ladd, 1990; Ladd & Price, 1987; Patrick, Yoon, & Murphy, 1995) have found unique effects associated with measures of social competencies when the effects of academic or cognitive competence were partialed out statistically. This indicated that the associations between social ability and academic outcomes were not due simply to a spurious association with global cognitive development or intelligence. In summary, there is substantial evidence that the ability to relate effectively to others is associated with a large number of school and academic-related outcomes, and this ability is independent of general cognitive development. It is unclear at present, however, how perceived social efficacy relates to students' motivation for schoolwork.

Previous research has not considered the relations between students' perceptions of their social efficacy and academic efficacy. However, it seems likely that students' efficacy to relate effectively with their peers also may be associated with their efficacy to do their schoolwork. Students often find it helpful to interact with others during classroom activities, even if interaction is not integral to the task. Peers serve as potential sources of instrumental help with schoolwork, and students may find it beneficial to seek clarification of instructions, help with specific tasks, or general reassurance that what they are doing is correct. Recent research has supported the argument that appropriate social behaviors are related to adaptive academic behaviors. For example, Ryan and Pintrich (in press) found that students who felt more socially competent also reported being more likely to seek assistance from others when they needed help with their schoolwork. Further, high-achieving students, as compared with lower-achieving students, reported seeking assistance from peers and from teachers to a greater extent (Zimmerman & Martinez-Pons, 1986). In addition, perceived social efficacy may increase perceptions of academic efficacy through increased positive affect at school. Students who perceive that they are able to relate positively to others at school may be more likely to view the classroom as an enjoyable and comfortable place to be, thus experiencing less stress and anxiety and greater feelings of

security and belonging. Such positive feelings have been found to be related to greater adjustment and learning at school (Finn, 1989; Goodenow, 1993b). Therefore, the first hypothesis in this study was that students' perceptions of their ability to interact effectively with their classroom peers would be related positively to academic efficacy in the classroom.

Research on children's socially competent behavior has focused almost exclusively on peer relationships (e.g., Harter, 1982; Ladd, 1990). Peer relationships sometimes have been termed *horizontal*, in that they are characterized by reciprocity, egalitarian expectations, and a similar degree of social power (Hartup, 1989). It is important to note, however, that social competence also involves being able to manage successfully vertical relationships (those that involve unequal power, status, and knowledge), such as relating appropriately and satisfactorily with teachers and other adult authority figures (Hartup, 1989). Accordingly, students need different knowledge and behaviors (e.g., knowing and following different social norms and rules) for relationships with peers than for those with teachers. Therefore, feeling efficacious in relating to teachers also may be important for perceptions of academic efficacy. In this study, the associations between students' efficacy for their schoolwork were considered in relation to their perceived social efficacy, both in relating to their peers and their teachers. Therefore, the second hypothesis was that both perceived social efficacy with peers and with the teacher would be related significantly and independently to academic efficacy.

In addition to examining associations between perceptions of academic and social efficacy, the current study also investigated relations between students' perceived academic efficacy and the social goals they reported pursuing in school. Specifically, the current study focused on two types of social goals: to be socially responsible and to form intimate social relationships with peers.

Social Goals and Academic Outcomes

Recent motivational research has focused on the social goals that students endorse (e.g., Hicks, Murphy, & Patrick, 1995; Wentzel, 1989) and how those goals relate to academic outcomes. A number of social goals have been discussed and examined, including being prosocial and responsible (Wentzel, 1991b, 1993), forming peer relationships, having high social status (Hicks, 1996), gaining social approval, and bringing honor to the family (Urdan & Maehr, 1995). In addition, there have been somewhat differing definitions of social goals. In this study, goals are defined in keeping with achievement goal theories as aims, intentions, and purposes that guide students' cognitions, affect, and behavior (e.g., Dweck, 1992; Pintrich, Marx, & Boyle, 1993).

Goals differ from more general values in expectancy value approaches, in that goals are more situation specific (Wigfield & Eccles, 1992). That is, a student may value having friends and thus pursue a goal of forming friendships at school. As noted previously, goals to be socially responsible and to form intimate peer relationships both were investigated in relation to perceptions of academic efficacy.

Wentzel (1991c) defined social responsibility as "adherence to social rules and role expectations" (p. 2) and has suggested that students' pursuit of responsibility goals represents their desire and perceived ability to meet the social demands of the classroom context (Wentzel, 1991a). It seems likely that students who strive to comply with the norms of their classroom also might feel more able to meet the academic demands of that setting; that is, they may feel more efficacious with respect to their schoolwork. In contrast, those who either are unsure of the social expectations or who are unwilling to comply with those expectations may be less likely to feel confident about their ability to succeed academically. These predictions are supported by evidence that students who report high levels of pursuing responsibility goals have been shown to receive higher grades (Wentzel, 1989, 1993). Therefore, the third hypothesis was that students' endorsement of social responsibility goals would be related positively to their academic efficacy.

Another social goal important to students, particularly early adolescents, is forming and maintaining intimate social relationships with peers (Hartup, 1993). Although self-disclosure and intimacy are important features of both girls' and boys' peer relationships, they are particularly characteristic of girls' relationships (Buhrmester & Furman, 1987; Hartup, 1993). Intimacy goals refer to students' goals for creating and sustaining close friendships and include the desire for intimacy, trust, and sharing (Hicks et al., 1995). Students' responsibility and intimacy goals have been shown to be related differentially to a range of academic outcomes, including academic goal orientation and achievement (Hicks, 1996; Hicks & Murphy, 1995; Hicks et al., 1995).

It is unclear how the endorsement of intimacy goals is related to academic efficacy. It may be that endorsing high levels of intimacy goals represents a conflict between students' attention to their schoolwork and to their peers, reflected in a negative association with academic efficacy. However, the effects of low levels of goal endorsement also should be considered. Students who express little interest in being accepted by or forming positive intimate relationships with their peers at school potentially isolate themselves from important sources of both instrumental help and personal support. When students feel socially isolated at school, their perceptions of efficacy in meeting the academic demands of the classroom may be lower than those of

less isolated students. Alternately, having low levels of social intimacy goals may be related positively to academic efficacy. Wentzel and Asher (1995) found that sociometrically neglected middle school students reported higher levels of school motivation than did the average-accepted students. The measures of motivation in the Wentzel and Asher study, however, were students' satisfaction with school and commitment to classwork rather than their perceptions of efficacy to complete academic tasks. It is not evident from the previous literature to what extent intimacy goals and perceptions of academic efficacy are related. Therefore, a fourth question, for which a specific hypothesis was not made, was whether students' endorsement of social intimacy goals was related to their academic efficacy.

In summary, the current study investigated the relations between aspects of students' social perceptions and their self-efficacy for schoolwork. Specifically, the intent was to identify the unique contributions both of students' perceived self-efficacy for interacting socially with peers and teachers and their responsibility and intimacy goals, controlling for gender and prior academic performance. Gender was statistically accounted for because previous research has shown gender differences in peer relationships (e.g., Furman & Buhrmester, 1992; Hartup, 1993), social goals (Hicks, 1996; Jarvinen & Nicholls, 1996), and use of strategies in social situations (Chung & Asher, 1996). Prior performance was included because previous research (e.g., Bandura, 1990; Schunk, 1994) has indicated that it is associated positively with current academic efficacy. It was predicted that students who perceived themselves as being efficacious in relating both to their teacher and peers and who endorsed goals for being responsible class members would feel efficacious with respect to their schoolwork. There was not a specific prediction for the relations between academic efficacy and intimacy goals because there has been little and discrepant relevant research addressing that association.

This study expanded on the previously cited research in three ways: (a) by differentiating between social efficacy perceptions with regard to peers and with the teacher, (b) by differentiating social responsibility and intimacy goals, and (c) by examining the relations between students' perceived social efficacy and social goals and their efficacy for academic tasks.

METHOD

Participants

The participants in this study were 753 fifth-grade students (380 boys and 373 girls) from three school districts in Southeastern Michigan. Students

were recruited from 35 classrooms, of which 7 were taught by male teachers. The sample was ethnically mixed, with 47% of the students being African American, 38% White, and 7% Hispanic. The sample's fourth-grade grade point average (GPA) was normally distributed, with a mean of 8.06 (i.e., B-, $SD = 2.36$) and a range of 1.70 (approximately D-) through 12.60 (approximately A+). Parental permission was required for students' participation in this study and was received by 82% of the students in the participating classrooms. Guidelines for the proper treatment of human subjects were followed.

Measures

All scales and Cronbach's adjusted alpha coefficients are presented in the Appendix. All items were scored on a 5-point scale ranging from 1 = *not at all true* through 5 = *very true*.

Perceived academic efficacy. The measure of students' self-efficacy for academic work was taken from the Patterns of Adaptive Learning Survey (PALS) (Midgley et al., 1996). This scale refers to students' judgments of their capability to do the work in their current class and does not mention specific subject areas. In previous studies, this measure has demonstrated both good internal consistency and construct validity (e.g., Anderman, Hicks, & Maehr, 1994; Midgley et al., 1996; Midgley & Urdan, 1995). With the current sample, an adjusted Cronbach's alpha of .78 was calculated.

Perceived social efficacy. The measure of students' perceived social efficacy with peers was based on both (a) the more general Harter (1982) measure of perceived social competence and (b) prior developmental research that has identified social behaviors that differentiated between children according to their social status and social competence (e.g., Coie & Kupersmidt, 1983; Dodge, 1983; Dodge, Pettit, McClaskey, & Brown, 1986; Putallaz & Sheppard, 1992). The current measure, given its greater situational specificity, differs from the Harter (1982) Perceived Social Competence Scale. The Harter scale includes items about having a lot of friends and always doing things with a lot of peers, whereas the measure of perceived social efficacy used in this study asks about perceptions of more specific social interactions with peers in the student's class. The measure of perceived social efficacy with peers includes items about students explaining their views, social group entry, and working out social problems with their classmates. The measure of self-efficacy perceptions for social interactions with the teacher was a parallel scale to the peers measure. Principal compo-

nents analysis, with varimax rotation, supported the distinctiveness of the measures of perceived efficacy with peers and perceived efficacy with the teacher, from each other, from the Perceived Academic Efficacy Scale and from the two social goal scales that will be discussed. In this study, the adjusted Cronbach's alphas for these new measures of peer and teacher social efficacy were .72 and .71, respectively.

Social goals. Measures of students' responsibility and intimacy goals were adapted from those used by Hicks et al. (1995) with eighth-grade students and were written to parallel scales commonly used to measure achievement goals (e.g., PALS) (Midgley et al., 1996). The Responsibility Goal Scale was adapted from Wentzel (1991b, 1993) and included items related to following teachers' instructions and to working quietly and consistently. Although the measures used by Wentzel (1991b, 1993) included both interactions with peers (e.g., keeping secrets) and with the teacher (e.g., doing what one is asked), the measure of responsibility goals used in this study refers only to compliance with classroom norms and teacher requests. As such, it is similar to the Wentzel (1994) measure of *academic social responsibility.* The Intimacy Goal Scale included items related to forming and maintaining positive intimate peer relationships, including close friendships and more general group acceptance. Principal components analysis, with varimax rotation, supported the differentiation between responsibility and intimacy goals, and the resultant scales had acceptable internal consistency (Cronbach's adjusted alpha of .77 and .60, respectively).

Prior academic achievement. Students' grades for the academic core subjects (English, math, science, and social studies) from the final semester of fourth grade were collected from their school records. The grades were coded E = 1 through A+ = 13. An overall GPA was then computed by calculating the arithmetic mean of those scores for each student.

Procedure

Survey data for this study were collected in the fall of 1994 as part of a larger study. Pairs of research assistants trained in survey administration gave two surveys on separate days to the students while in their regular classes. Students were told that the surveys asked about how they felt about school and schoolwork, that this was not a test, and that there were no right or wrong answers. Students were assured that the information in the survey would be kept confidential. All instructions and items were read aloud by the research assistants while students read along and responded. Students were given an

opportunity to ask questions about the survey both prior to and during survey administration. Each survey took approximately 45 minutes to complete.

RESULTS

The first step in investigating the relations between students' perceptions of their academic efficacy and their social efficacy and social goals involved examining the zero-order correlations between all measures. These correlations are shown in Table 1.

Consistent with previous research, there was a significant positive correlation between students' prior GPA and their perceived academic efficacy ($r = .22$, $p < .01$). There, however, was no significant correlation between academic efficacy and gender ($r = -.04$). In addition, there were relations—significant and positive—between students' academic efficacy and their social efficacy with peers ($r = .26$, $p < .01$), with the teacher ($r = .31$, $p < .01$), their goals to be socially responsible ($r = .31$, $p < .01$), and their having intimate peer social relationships ($r = .17$, $p < .01$). Although perceptions of efficacy relating to peers and to the teacher were related significantly to each other ($r = .26$, $p < .01$), this correlation nevertheless was modest. Endorsement of responsibility goals was correlated significantly with endorsement of intimacy goals ($r = .41$, $p < .01$) and with perceptions of efficacy relating to the teacher ($r = .50$, $p < .01$).

Gender Differences

Previous research has reported gender differences in students' endorsement of social goals (Hicks, 1996; Hicks & Murphy, 1995; Hicks et al., 1995). Consequently, preliminary analyses included independent samples t tests to investigate gender differences on all variables included in the study. To ensure that the probability of a Type I error occurring was not inflated by the number of t tests that were conducted, the lower limit for accepting statistical significance was made more stringent by dividing the typical significance level (.05) by the number of t tests carried out (Cohen & Cohen, 1983). Therefore, in this study, only t tests that were significant beyond the .004 level were considered statistically significant.

The results of the t tests indicated that there was a significant difference in girls' and boys' fourth-grade GPA, $t(520) = -4.44$, $p < .001$, with girls receiving higher grades on average ($\overline{X} = 8.48$, $SD = 2.35$) than boys ($\overline{X} = 7.58$, $SD = 2.28$). There was no difference, however, in the level of perceived academic efficacy reported by boys and by girls, $t(701) = .98$.

TABLE 1: Correlations Among Academic Efficacy, Social Variables, Gender, and GPA

		1	2	3	4	5	6	7
1	Gender[a]	—						
2	Prior GPA[b]	.19**	—					
3	Social efficacy: Peers	–.02	.20**	—				
4	Social efficacy: Teacher	.09*	.17**	.26**	—			
5	Intimacy goals	.22**	.12**	.10**	.28**	—		
6	Responsibility goals	.17**	.09*	.09*	.50**	.41**	—	
7	Academic self-efficacy	–.04	.22**	.26**	.31**	.17**	.31**	—
$\overline{X}$			8.00	3.73	3.66	4.23	4.49	4.21
SD			2.36	.80	1.08	.72	.68	.68

a. Gender is coded boys = 0, girls = 1.
b. GPA is coded E = 1, A+ = 13.
*$p < .05$. **$p < .01$.

Similar to perceptions of academic efficacy, there was no significant difference between girls' and boys' perceived efficacy for relating positively with their teacher, $t(748) = -2.42$, or with their peers, $t(712) = .48$. There was, however, a significant difference in girls' and boys' endorsement both of responsibility goals, $t(748) = -4.64$, $p < .001$, and intimacy goals, $t(748) = -6.04$, $p < .001$. Girls reported wanting to be more socially responsible than did boys ($\overline{X} = 4.60$, $SD = .55$, and $\overline{X} = 4.37$, $SD = .78$, respectively). Girls also reported wanting to maintain intimate peer social relationships more than did boys ($\overline{X} = 4.28$, $SD = .62$, and $\overline{X} = 3.97$, $SD = .77$, respectively).

Regression Results

To investigate the effects of students' perceived social efficacy and social goals on their perceived academic efficacy, controlling for gender and prior GPA, a hierarchical regression analysis was conducted. The results of this analysis are shown in Table 2.

In the first step of the hierarchical analysis, students' gender and prior GPA were entered. Students' prior GPA was a significant predictor of academic efficacy ($\beta = .23$, $p < .001$), but gender was not ($\beta = -.08$). These two variables together accounted for 5% of the variance in academic efficacy. In the second step of the analysis, the four social efficacy and social goal variables were entered. This equation accounted for 20% of the total variance in academic efficacy; a significant increase in the variance explained $F(6, 496) = 22.49$,

TABLE 2: Hierarchical Regression Analysis Predicting Academic Efficacy

Predictor	β *Step 1*	β *Step 2*
Step 1		
Gender[a]	−.08	−.12**
Prior GPA[b]	.23***	.16***
Step 2		
Social efficacy: Peers		.17***
Social efficacy: Teacher		.14 **
Responsibility goals		.22***
Intimacy goals		.03
R^2	.05***	.20***
Change in R^2		.15***

NOTE: β indicates standardized regression coefficients.
a. Gender is coded boys = 0, girls = 1.
b. GPA is coded E = 1, A+ = 13.
*$p < .05$. **$p < .01$. ***$p < .001$.

$p < .001$. Prior GPA continued to have a significant effect ($\beta = .16, p < .001$). In addition, as expected, there were significant positive effects for students' perceived social efficacy with peers ($\beta = .17, p < .001$), with teachers ($\beta = .14, p < .01$), and for responsibility goals ($\beta = .22, p < .001$). Students' intimacy goals did not have a significant unique effect ($\beta = .03$). In addition, once the social variables were entered into the analysis, students' gender emerged as a significant predictor ($\beta = -.12, p < .01$) of perceived academic self-efficacy. That is, when students' prior GPA, social efficacy perceptions, and social goals were accounted for, girls reported feeling significantly less efficacious about their schoolwork than did boys.

In addition, tests were conducted to determine if there were interactions between students' gender and the other predictors of academic efficacy. Cross-product terms were computed with students' gender (recoded boys = −1, girls = 1), as well as each of the social efficacy and social goals measures, and with GPA. To reduce multicollinearity, each predictor variable was centered at its mean (Jaccard, Turrisi, & Wan, 1990). Therefore, the five interaction terms were entered in a final step of the hierarchical analysis. This step did not add significantly to the variance explained, $\Delta R^2 = .004$, $\Delta F(11, 491) = .57$. None of the interaction terms reached statistical significance.[1]

DISCUSSION

The results of this study contribute to understanding students' motivation for their academic work by highlighting associations with important social processes in the classroom. This study provided empirical evidence that students' beliefs about their ability to master the academic work in the classroom are related both to their motivation to be socially responsible and to their perceptions of their efficacy to relate to others in that setting. In addition, this study has indicated that these relations are independent of prior achievement.

The first hypothesis, that there would be a significant association between students' perceptions of relating effectively with peers and their perceived efficacy for schoolwork, was supported by the results of this study. This finding also was consistent with previous research that identified a link between perceptions of social competence with peers and intrinsic motivation for schoolwork (Patrick & Townsend, 1995). Those results add to the argument (e.g., Goodenow, 1992; Juvonen & Weiner, 1993; Wentzel, 1993) that motivational researchers should pay greater attention to students' social relationships, beyond noting generally that school is a social place.

An additional important finding from this study is the differentiation between students' perceptions of social efficacy in interacting with their peers and with their teacher. Research that has investigated the association between students' social competence and their performance at school (e.g., Ladd, 1990; Wentzel, 1991b) has tended to consider only aspects of peer relationships, such as the number of friends, peer acceptance, or social status. Although peer relationships are important, as indicated here and in other research, perceptions of being able to interact effectively with the teacher also are important for students' academic efficacy. This study indicated that perceived self-efficacy for relating to the teacher is distinct from relating with peers. The finding of the distinctiveness of perceived social efficacy for relating to peers and to the teacher is consistent with research regarding perceived social support, which has shown that adolescents perceive teachers and peers as comprising independent sources of social support (Cauce, Felner, & Primavera, 1982; Goodenow, 1993a; Wentzel, 1994). Further, this study indicated that perceived social efficacy with peers and with the teacher was related significantly and uniquely to students' academic efficacy. The

finding that students' perceived efficacy to relate both to peers and the teacher is related significantly to academic efficacy seems contradictory to the Wentzel and Asher (1995) suggestion that being liked by the teacher may be more important for school motivation than having high peer acceptance. However, the differing results between the current study and the Wentzel and Asher study may be explained by the different focus on social relationships taken in each study. This study measured perceptions about the ability to form and maintain social relationships, whereas Wentzel and Asher focused on effects of relationship quality. In addition, as noted in the introduction to this study, Wentzel and Asher did not measure students' academic efficacy. Further clarification of the relative importance of teacher and student relationships in relation to academic motivation seems merited.

The results of this study also confirmed the hypothesis that students' goals to behave responsibly in the classroom relate significantly to their perceived academic efficacy. The current definition of *responsibility goals* focuses specifically on conforming to teacher requests and respecting norms of classroom behavior. If social responsibility reflects students' ability to discern and willingness to comply with the social norms of their classroom, it seems reasonable that endorsement of such goals would be associated with greater confidence in their capability to do their work within that context. The corollary of this statement, of course, is that students who are unable or unwilling to comply with those norms may have little confidence in their capability to do their work, regardless of their other abilities or effort.

In contrast to responsibility goals, students' goals for forming intimate peer relationships were not related independently to their academic efficacy, despite these measures being correlated modestly but significantly with each other. This indicated that students' desire to form intimate relationships with peers was not associated uniquely with their perceived academic efficacy when responsibility goals and perceived social efficacy were considered. It is important to note, however, that intimacy goals were not related negatively to efficacy. That is, there was no support in this study for the suggestion that having goals to form intimate peer relationships would create conflict with school tasks and decrease students' perceptions of their academic efficacy. These results supported the importance of differentiating between various social goals—in this instance, intimacy and responsibility goals. Further research should extend this work by examining other social goals, such as the goal for companionship.

The findings of this study appear to have important implications for teacher practice because it appears that students' social perceptions and goals are indeed linked to academic aspects of their school life. The association between academic and social factors increasingly is being recognized to the

extent that some researchers (e.g., Schonert-Reichl & Hymel, 1996) have suggested that *relationships* should join the traditional three "Rs" as foundational skills for schooling. Schonert-Reichl and Hymel have argued that students may experience academic difficulties primarily as a result of social problems and have encouraged teachers to be attentive to students' social development and peer relationships in the classroom. The results of this study lend support to that argument.

Related to the need for teacher attentiveness to their students' social development and their perceptions of classroom peer relationships is the implication that teacher intervention may be helpful, in some situations, for students who have social difficulties. There is evidence that teacher intervention may be important, especially for some types of students, in elementary school if ongoing academic problems are to be avoided. Longitudinal research by Berndt and Mekos (1995) found that elementary school students with poor conduct and social adjustment were more unhappy, viewed school less positively, and experienced greater conflict with teachers after the transition to junior high school than did those students with greater social adjustment. They surmised that this continued unhappiness and conflict placed those students at greater risk for delinquency and school dropout.

It also appears that it may be important for teachers to adopt classroom instructional and management practices that encourage and support students' perceived social efficacy and social responsibility goals. These practices may include those that encourage cooperation from all students, involve task structures in which all students are included, allow existing friends opportunities to interact, and encourage a classroom environment that incorporates a range of norms and values (see Berndt & Keefe, 1992; Hicks, 1997). Further, it appears that it may be beneficial to students if teachers attempt to form and maintain relationships with their students in which the students feel comfortable to interact, ask for assistance when needed, and generally feel positive about the relationship. It is not clear why some students in this study felt more efficacious in relating to their teachers than did others. Previous research, however, has demonstrated that many instructional behaviors communicate warmth, respect, and acceptance to students in the classroom (e.g., Emmer & Evertson, 1981; Fraser & Walberg, 1991). Thus, the creation of a positive social climate in classrooms may increase students' efficacy for relating effectively with their teacher and also may be related positively to students' perceptions of academic efficacy. The exact mechanisms through which teacher practices influence students' self-efficacy remain an important area for future investigation.

Whereas gender differences in self-efficacy were not a primary focus of this study, two interesting findings emerged. First, although girls on average

had a higher GPA than did boys, girls and boys did not differ significantly with respect to their perceived academic efficacy. Second, when social efficacy and social goals were controlled statistically, being female was associated negatively with perceived academic efficacy. This indicated that girls' confidence in their ability to learn in school settings was influenced less by their history of success and more by social factors than was boys' confidence.

This study has raised many questions that can be answered only through longitudinal studies of students' social and academic perceptions and behaviors as they progress through school. For example, the present findings are limited in that they represent data taken from one time point only and therefore cannot indicate causality with respect to relations between academic and social factors. Longitudinal analyses would allow for examining the relative importance of social goals and early difficulties with peer and teacher relationships as predictors of subsequent school alienation, conduct problems, and dropout. Further, such analyses would enable an investigation of the extent of bidirectional effects between social and academic factors—an important consideration, given that students who feel more academically efficacious may seek out social relationships to a greater extent than less academically efficacious students. A second limitation of this study is the fact that all data were collected from the same informant. Whereas research on social-cognitive variables necessitates the use of self-report data, the ensuing result of this methodology may be some inflation of effects. Research in this field would be strengthened by studies that use multiple sources of data. The generalizability of this study is limited also to early adolescent students in elementary schools. It is uncertain to what extent differences in the nature of peer relationships, characteristic of differing stages of preadolescence and adolescence (e.g., Furman & Buhrmester, 1992), or different educational structures associated with middle school may be associated with differing results.

The results of the current study are important in that they have demonstrated that students' social efficacy and social goals are related significantly to their feelings of academic efficacy. These findings indicate that motivation theorists need to consider seriously the contributions that students' social perceptions and goals make to their beliefs about their schoolwork. This study has provided empirical evidence that students' beliefs about their ability to master academic tasks are related both to their motivation to be socially responsible and their perceptions of their efficacy to relate to others in that setting, indicating that it may be fruitful to consider further students' social perceptions and goals in relation to academic aspects of school.

Appendix
Scale Items and Internal Consistency Coefficients for All Scales

Academic efficacy, $\alpha = .78$

I'm certain I can master the skills taught in class this year.
I can do even the hardest work in this class if I try.
If I have enough time, I can do a good job on all my classwork.
I can do almost all the work in class if I don't give up.
Even if the work is hard, I can learn it.
I'm certain I can figure out how to do the most difficult classwork.
No matter how hard I try, there is some classwork I'll never understand. (R)

Social efficacy with peers, $\alpha = .72$

I find it easy to start a conversation with most students in my class.
I often don't know what to say when other students in my class talk to me. (R)
I can explain my point of view to other students in my class.
I often say things to other students that later I wish I hadn't. (R)
I can get along with most of the students in my class.
When other students are already doing something together I often find it hard to join in with them. (R)
I can work well with other students in my class.
When I have an argument with a classmate I find it hard to make up with him or her. (R)

Social efficacy with teacher, $\alpha = .71$

If my teacher gets annoyed with me I can usually work it out.
I can explain my point of view to my teacher.
I find it hard to get along with my teacher. (R)
I find it easy to just go and talk to my teacher.

Social responsibility goal, $\alpha = .77$

I try to do what the teacher asks me to do.
It's important to me that I follow class rules.
It's important to me to keep working even when other kids are goofing off.
I'd like the teacher to think I'm a responsible student.
I like to keep quiet when other kids are trying to study.

Social intimacy goal, $\alpha = .60$

I would like to get to know my school friends well.
I'd like to keep promises I've made to other kids in my class.
I would like to have a friend in school I can confide in.

Appendix (Continued)

It's important to me to form one or two really close friendships at school.
It's important to me that I am accepted by other students at school.
I'd like to get along with most kids in school.

NOTE: (R) = reverse-coded item.

NOTE

1. The presence of interactions between combinations of students' social efficacy and social goals also were investigated. As with the first set, six interaction terms were created, using the mean-centered scales, and then entered in the third step of a second hierarchical regression analysis. This step did not add significantly to the variance explained, $\Delta R^2 = .002$, $\Delta F(12, 490) = .24$. None of the interaction terms reached statistical significance.

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