

**PERCEPTIONS OF AUTONOMY SUPPORT,  
PARENT ATTACHMENT, COMPETENCE AND SELF-WORTH  
AS PREDICTORS OF MOTIVATIONAL ORIENTATION  
AND ACADEMIC ACHIEVEMENT:  
AN EXAMINATION OF SIXTH- AND NINTH-GRADE  
REGULAR EDUCATION STUDENTS**

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ABSTRACT

This project examined the hypothesis that students' perceptions of teacher autonomy support, parent attachment, competence, and self-worth would predict motivational orientation and achievement test performance. Participants were 135 sixth-grade and 91 ninth-grade regular education students from a large, ethnically diverse school district. Stepwise regression analyses indicated that autonomy support, parent attachment, scholastic competence, and self-worth predicted the academic criterion variables. Interestingly, scholastic competence was a significant predictor in all of the regression models. Implications of the findings are discussed in terms of classroom practices.

A growing body of literature supports an association between students' motivation and socializing agents (i.e., parents and teachers). Specifically, numerous studies have shown that students' *perceptions* of positive relationships with parents and teachers contribute to success in academic settings. In general, higher achievement and motivation have been linked to such interpersonal variables as parent attachment (Jacobson & Hoffman, 1997; Learner & Kruger, 1997), parent involvement (Ginsburg & Bronstein, 1993; Grolnick, Ryan, & Deci, 1991; Grolnick & Slowiaczek, 1994), parental autonomy support (Ginsburg & Bronstein, 1993; Grolnick, Ryan, & Deci, 1991; Wiest, Wong, & Cusick, 1997), and teacher autonomy support (Grolnick & Ryan, 1987; Skinner, Wellborn, & Connell, 1990; Wentzel, 1997; Wiest, Wong, &

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Cusick, 1997). In addition, intrapersonal variables such as perceived competence (Harter, 1981; Stipek, 1988), perceived control (Connell, 1985; Skinner, Wellborn, & Connell, 1990), and perceived autonomy support (Grolnick & Slowiaczek, 1994; Ryan, Stiller, & Lynch, 1994; Wentzel, 1997) have been shown to affect young adolescents' achievement and motivation. Finally, researchers have also identified systematic links between these interpersonal and intrapersonal variables (Grolnick, Ryan, & Deci, 1991; Grolnick & Slowiaczek, 1994; Wiest, Wong, & Cusick, 1997).

### *Parent Attachment*

Attachment research has demonstrated that children's attachment to their primary caregiver provides a supportive framework from which they can explore the environment and master the challenges within that environment (Ainsworth, 1982; Bowlby, 1988). Further, there is evidence that attachment relationships beyond early childhood (i.e., adolescence) may continue to serve a similar purpose, providing a secure base from which the early adolescent can explore the environment (Armsden & Greenberg, 1987). These relationships become relevant in regard to young adolescents' academic achievement and motivation. For example, adolescents' secure parental attachment may allow them to achieve a sense of academic competence, as well as actual school achievement, by providing them with a secure emotional foundation. Early adolescents may also perceive themselves more positively, as well as more competent, by virtue of the strength and security of the attachment relationship (Eccles & Midgley, 1990; Paterson, Field, & Pryor, 1994).

Adolescence is popularly characterized as a life stage involving greater separation and independence from parents. However, Collins (1990) has suggested that the relationship between parents and early adolescents instead undergoes a transformation in which roles change. In this sense, the parent-adolescent attachment relationship is renegotiated rather than ended. Similarly, Paterson, Field, and Pryor (1994) found that early adolescents utilize their parents more often than friends for support, when compared to older adolescents. These researchers also found that, even as attachments to peers became more intense, both younger and older adolescents sought support from parents and continued to consider parents as important people in their lives.

Support from, and attachment to, parents can be especially beneficial when youths make the transition from elementary school to junior high school. This transition can generate new stresses and challenges, and having a secure base and a sense of emotional security may ease

the difficulty of this process. However, few studies have examined the parent-adolescent attachment relationship during this transition. One study (Papini & Roggman, 1992) found that youths who reported strong attachment relationships with their parents also reported less physical and social anxiety during the transition to junior high school. In other words, the emotional and psychological support these early adolescents directly received from parents worked to buffer the anxieties created by this transition. Furthermore, stronger attachment relations with parents during this time were associated with greater perceived competence. In a more recent study, Jacobsen and Hoffman (1997) noted that early adolescents who were judged to have secure attachment relations showed greater attention-participation, decreased insecurity about the self, and a higher grade point average. Another study examined parent-adolescent attachment and academic motivation in high school and found that parent attachment was indeed positively related to students' motivation to succeed academically (Learner & Kruger, 1997).

#### *Teacher Autonomy Support*

Because teachers are the primary adult figures within the academic setting, their impact on students is also important. A growing number of studies have demonstrated significant associations among autonomy support from teachers, perceived competence, intrinsic motivation, and academic performance. For example, Ryan and Grolnick (1986) found that students who perceived their teachers as autonomy supportive were more likely to feel a greater sense of competence and to be more intrinsically motivated. In related work, Grolnick and Ryan (1987) found that conceptual learning can be improved when classrooms are designed to assist active and autonomous learners. Midgley and colleagues (1989) reported that students who moved from classrooms where they experienced high teacher support to classrooms where teacher support was lower showed a decrease in interest and more negative attitudes toward learning. Similarly, Goodenow (1993) found that perceived teacher support was significantly and positively associated with both academic effort and achievement in a sample of junior high school students. Finally, Wentzel's (1997) study of motivation in junior high adolescents provided strong evidence supporting the idea that students are more likely to be interested in classroom activities if they feel supported by their teacher. Taken together, these findings show that perceived support from teachers is a significant predictor of early adolescents' perceived competence, motivation, and academic achievement.

The relationship between teacher autonomy support and student motivation and achievement has been studied during the transition from elementary to junior high school. Some researchers have attributed declines in academic achievement and motivation to changes in the supportiveness of the classroom environment when moving from one level of schooling to another (see Eccles & Midgley, 1990; Harter, 1996; Midgley, Feldlaufer, & Eccles, 1989). These researchers also noted a drop in students' reports of supportive interpersonal relations with teachers after the transition to junior high. Some researchers have suggested that one major cause of this decrease in the quality of student-teacher relationships is the change in school organization that occurs as students move from a typically small elementary school to a larger middle or junior high school, and from extended close contact with one teacher to shorter, less personalized classes with many teachers (Eccles, Lord, & Midgley, 1991; Goodenow, 1993). In a related study, Eccles and Midgley (1990) noted that junior high teachers tend to be more controlling and impersonal than elementary school teachers. Furthermore, Harter (1996) reported that the transition from elementary to junior high school often results in students' perceptions of (1) heightened levels of teachers' control over students, (2) increased teacher emphasis on grades, and (3) a general sense that teachers are no longer interested in them. Harter found this change in student-teacher relationships to lead to a reevaluation of, and possible decline in, young adolescents' perceived competence, which, in turn, leads to parallel changes in academic motivation.

### *The Current Project*

In short, numerous studies have substantiated significant links among parent attachment, teacher autonomy support, perceived competence, and adolescent achievement and motivation. The purpose of the current project was to examine the efficacy of perceived teacher autonomy support, parent attachment, competence, and self-worth as predictors of motivational orientation and achievement in a sample of students from two grade levels. The research question was addressed within the framework of Harter's (1981) competence motivation theory; specifically, competence motivation theory hypothesizes that both interpersonal and intrapersonal variables significantly influence academically related outcomes.

### *Participants*

One hundred thirty-five sixth graders (65 males and 70 females) and 91 ninth graders (32 males and 59 females) from a large southern California school district participated in this study. Among the sixth graders, 70% lived with both biological parents, 16% lived with their mother the majority of the time, and the remainder had other living arrangements (e.g., lived with father, lived with one biological parent and one stepparent). Similar living arrangements were reported by the ninth-grade students. Overall, the sample was representative of the ethnic diversity of the school district. Within the sixth-grade cohort, 2.2% were African-American, 14.1% Asian-American, 21.5% Hispanic, 57% Caucasian, and 5.2% other. The ninth-grade sample was equally diverse: 1% African-American, 12.1% Asian-American, 13.2% Hispanic, 71.4% Caucasian, and 2.2% other. The majority (86.7%) of the sixth graders reported that they spent three or more hours per week "doing activities with their parents," compared with 61.6% of the ninth graders.

### *Measures*

Students' perceptions of teacher autonomy support, parent attachment, scholastic competence, self-worth, and motivational orientation were assessed with four widely used and validated measures.

*Origin Climate Questionnaire (de Charms, 1976)*. This scale was designed to measure students' perceptions of their teacher's autonomy support and involvement. Only the autonomy support subscale was employed here.

*The Inventory of Parent Peer Attachment (Armsden & Greenberg, 1987)*. This measure assesses perceptions of attachment to parents and peers. Only the parent subscale was employed here. Although three scores can be derived (i.e., parent trust, parent communication, and parent alienation), this research employed the full scale score. Students responded to items on a 5-point Likert scale; higher scores indicated "stronger" perceived parental attachment.

*Self-Perception Profile for Children (Harter, 1985)*. The Self-Perception Profile is a domain-specific measure of competence; additionally, a separate subscale assesses perceptions of self-worth. The scholastic competence and the self-worth subscales were employed. Students responded to structured alternative items in which they initially indi-

cated which of two descriptions was most like them, and then indicated whether it was "really true" or "sort of true" for them. Higher scores indicated greater perceived competence or greater self-worth.

*A Scale of Intrinsic vs. Extrinsic Orientation in the Classroom (Harter, 1980).* This is a multidimensional measure of students' motivational orientation. Two dimensions of motivational orientation were assessed here: preference for challenge vs. easy task, and preference for independent mastery vs. reliance on the teacher. Items are presented in a structured alternative format. Higher scores indicated a more internal motivational orientation.

### *Procedure*

Following school district approval, sixth- and ninth-grade teachers were informed of the project and encouraged to have their classes participate. Informed parental consent was obtained for students who volunteered to participate. The measures, along with a demographic questionnaire, were combined into a single instrument and group administered in the students' classrooms. Standard instructions were provided to all students, who were encouraged to answer all questions and told that there were no "right" or "wrong" answers.

Students' scores (i.e., percentile rank) on the math and reading scales of the Iowa Test of Basic Skills (ITBS) were obtained from their respective cumulative files. The ITBS scores were employed as indices of academic achievement.

## RESULTS

In order to examine the efficacy of perceived teacher autonomy support, parent attachment, scholastic competence, and self-worth as predictors of motivational orientation and academic achievement, a series of stepwise regression analyses were performed. In each regression model, students' perceptions of autonomy support, attachment, competence, and self-worth served as independent variables; the preference for challenge and independent mastery subscales from the measure of motivational orientation, along with ITBS scores, were the dependent variables. It should be noted that ITBS math and reading scores were available for only 68 of the ninth graders; thus, the regression analyses involving ITBS scores for ninth graders were performed on a sample of 68.

Table 1 contains the variables selected by the stepwise procedure, as well as the associated beta weights for each of the regression analyses performed on the sixth-grade sample. The regression model for prefer-

Table 1

## Predictors of Motivational Orientation and Academic Achievement Among Sixth Graders

Dependent Variable	beta	<i>t</i>
Preference for Challenge		
Scholastic Competence	.338	4.070**
Parent Attachment	.232	3.081**
Self-worth	.173	2.067*
Independent Mastery		
Scholastic Competence	.195	2.294*
ITBS (Math)		
Scholastic Competence	.373	4.625**
ITBS (Reading)		
Scholastic Competence	.553	6.924**
Autonomy Support	-.214	-2.268**

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

ence for challenge was significant,  $F(3, 131) = 17.061$ ,  $p \leq .01$ ;  $R^2 = .281$  and adjusted  $R^2 = .264$ . Likewise, the regression model for independent mastery was significant,  $F(1, 133) = 5.262$ ,  $p \leq .05$ ;  $R^2 = .038$  and adjusted  $R^2 = .031$ . The regression model for math scores on the ITBS was significant,  $F(1, 132) = 21.391$ ,  $p \leq .01$ ;  $R^2 = .139$  and adjusted  $R^2 = .133$ . Finally, the regression model for reading scores on the ITBS was significant,  $F(2, 131) = 24.006$ ,  $p \leq .01$ ;  $R^2 = .268$  and adjusted  $R^2 = .257$ .

Table 2 contains the variables selected by the stepwise procedure, as well as the associated beta weights for each of the regression analyses

Table 2

## Predictors of Motivational Orientation and Academic Achievement Among Ninth Graders

Dependent Variable	beta	<i>t</i>
Preference for Challenge		
Scholastic Competence	.449	4.967**
Autonomy Support	.270	2.982**
Independent Mastery		
Scholastic Competence	.475	5.093**
ITBS (Math)		
Scholastic Competence	.462	4.235**
ITBS (Reading)		
Scholastic Competence	.437	3.944**
Autonomy Support	-.214	-2.268**

\*\* $p \leq .01$

performed on the ninth-grade sample. The regression model for preference for challenge was significant,  $F(2, 88) = 23.744, p \leq .01; R^2 = .350$  and adjusted  $R^2 = .336$ . Likewise, the regression model for independent mastery was significant,  $F(1, 89) = 25.938, p \leq .01; R^2 = .226$  and adjusted  $R^2 = .217$ . The regression model for math scores on the ITBS was significant,  $F(1, 66) = 17.932, p \leq .01; R^2 = .214$  and adjusted  $R^2 = .202$ . Finally, the regression model for reading scores on the ITBS was significant,  $F(1, 66) = 15.556, p \leq .01; R^2 = .191$  and adjusted  $R^2 = .178$ .



## DISCUSSION

The primary purpose of this project was to examine the ability of perceived teacher autonomy support, parent attachment, scholastic competence, and self-worth to predict students' motivational orientation and achievement test scores. Generally speaking, the results are consistent with earlier research that has demonstrated a link between interpersonal and intrapersonal variables and academically related outcomes (e.g., Harter, 1981; Jacobson & Hoffman, 1997; Wentzel, 1997; Wiest, Wong, & Cusick, 1997). Moreover, the results are consistent with Harter's (1981) competence motivation theory, which suggests that variables such as autonomy support and perceived competence contribute significantly to an individual's motivational orientation and performance within a particular domain. More specifically, there are a number of interesting findings that should be noted.

First, students' perceived scholastic competence was selected by the stepwise procedure as a significant predictor in each of the regressions performed; in each case, scholastic competence was the sole predictor or the strongest predictor among a set of predictors. On an applied level, the results suggest that it is important to provide students with an environment in which their sense of competence is maintained and/or enhanced. That is, students who believe that they "can do it" will often try harder to do well and may, in fact, perform at a higher level. To that end, how socializing agents (e.g., teachers and parents) respond to a child's performance, whether or not optimal challenge is provided, and the degree to which personal goal setting is encouraged may be critical experiences in terms of a student's perceptions of competence in a particular domain.

Second, the findings support a link between perceived autonomy support and academically based outcomes. The positive effect of teacher autonomy support on ninth graders' preference for a challenging task is consistent with earlier work (e.g., Wentzel, 1997). As in the case of scholastic competence, these results suggest that the context in which students learn should be considered. It may also be the case that with the ninth graders, adjustment to junior high school has been achieved. Thus, they perceive the environment to be autonomy supportive, which, in turn, influences their motivational orientation. This may be in contrast to students who are currently making the transition from elementary school to junior high school. Previous research (e.g., Harter, 1996) has found that for those students, perceptions of teacher autonomy support often decrease.

It is not clear why the association between perceived autonomy support and sixth-grade reading scores is negative. One possible explana-

tion is that there is incongruence between the predictor and the criterion. That is, the autonomy support measure contains items which primarily focus on day-to-day teacher-student interactions (e.g., "the teachers let us try new ways of doing things" and "the rules we have in my classes are made to help students") that may not apply to an achievement test situation.

Third, the findings provide additional evidence that attachment to parents contributes to students' motivation. Previously, Learner and Kruger (1997) found that parent attachment was positively associated with students' motivation to succeed. The present study indicates that there is a positive link between parent attachment and motivational orientation. In particular, students with higher scores on the attachment measure also reported a greater preference for challenging tasks (i.e., an intrinsic motivational orientation). This warrants further empirical attention within a structural modeling framework, since the influence of parental attachment on classroom performance and motivational orientation may be mediated by variables such as perceived competence and self-worth.

Last, the results offer some preliminary support for self-worth as a significant predictor of motivational orientation. Such a link is hypothesized by competence motivation theory (Harter, 1981) and certainly warrants further empirical attention, since it has been consistently demonstrated that students' self-perceptions have a significant impact on academic outcomes.

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