THE RELATIONS BETWEEN PARENTING
AND ADOLESCENT MOTIVATION

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Purpose of Study

There are many factors that influence the academic success and motivation of students. Social cognitive theory contends that individuals learn and perform based upon a triadic reciprocality of personal factors, behavior, and the environment (Bandura, 1986). Personal factors such as beliefs, behaviors, and the environment equally influence one another. Existing literature suggests that highly motivated students may attain more academic success (Grolnick & Kurowski, 1999; Grolnlick & Ryan, 1989; Grolnick, Ryan, & Deci, 1991); Grolnick & Slowiaczek, 1994). Thus, parenting practices that influence or teach adaptive motivational and achievement outcomes are an aspect of a student's success that are in need of consideration. This study will examine motivational outcomes, as predicted by parenting practices that may influence student behavior.

The purpose of this study is to expand upon the existing research on the relation between parenting practices and motivation. Specific consideration will be given to the parenting practices of parenting style and parent involvement, and two views of motivation, goal orientation, and autonomy. The relations among the styles of parenting, the level and type of parental involvement, and three goal orientations and autonomy will be examined.

Styles of parenting are generally described as patterns or configurations of parenting behaviors. Specifically, the parenting styles of authoritative, authoritarian, and permissive, as described by Baumrind (1967), will be considered for this study. The parental involvement that will be examined by the present study will include involvement such as attending school functions, helping with homework, or simply showing interest in what is occurring in school may be important to a student's academic career. Parental involvement with both social aspects and intellectually stimulating activities beyond schoolwork will also be assessed as proposed by Grolnick and Slowiaczek (1994).

Several different theories attempt to explain what motivates individuals to initiate, persist at, and follow through with certain activities or tasks. Achievement goal theory (Ames & Archer, 1988; Middleton & Midgley, 1997) and self-determination theory (Deci & Ryan, 1985) are the two views of motivation that will be focused on throughout the present study. Achievement goal theory highlights the purposes behind achievement behaviors (Ames & Archer, 1988; Pintrich & Schunk, 1996). Achievement goal theory examines the purpose behind certain achievement behaviors and the standards of evaluation students use to assess their performance. Self-determination theory examines the social and contextual factors that affect an individual's self-motivation and psychological development (Deci & Ryan, 1985; Ryan & Deci, 2000). Self-determination theory includes three innate needs that each individual is believed to have: competence, relatedness, and autonomy. These are the innate psychological needs. The need for autonomy will be the aspect of self-determination theory that will be examined here.

This study will contribute to the existing knowledge regarding the relation between

parenting practices and motivational processes that foster optimal motivation. Specifically, the study considers parenting practices, such as parental involvement and styles of parenting, to see how predictive they are of goal orientations and the autonomy component of self-determination theory. In particular, this study will be guided by research questions that consider whether or not a relation exists between parenting styles and parental involvement, and a student's goal orientation. In addition, the relation between parenting styles and parental involvement, and student's level of autonomy will be explored in the present study. Finally, the relation between a student's goal orientation and level of relative autonomy will be considered. Potential implications of this study may address the issues surrounding the importance of parenting practices in the academic career of a student.

Review of Literature

The present review of literature begins by discussing two specific parenting practices that may promote more adaptive patterns of motivation. First, parenting style will be explored with an emphasis on the implications of authoritative parenting and those styles that are aligned with it. Second, any links between parenting style and any motivational or achievement variables will be examined. Third, the specific aspects of parental involvement such as behavioral involvement, personal involvement, and intellectual involvement will be defined and discussed. Fourth, any relation between parental involvement and motivational or achievement variables will be explored. Fifth a more specific glimpse into the relation between certain parenting styles and goal orientation will be examined, as goal orientation is one of the two focal motivational variables being considered in this study of parenting practices. Sixth, the other important motivational variable for this study, the autonomy component of self-determination theory, will be discussed. Seventh, autonomy and any relation to parenting practices will be considered. Subsequently, the possibility of a relation between specific goal orientations and autonomy will be examined. Finally, some conclusions based upon the literature will be drawn.

Parenting Styles

Parenting styles have been defined in several different ways by several different researchers. The present study will consider the authoritative parenting style and autonomy supportive parenting style to be synonymous, as they both describe the same behaviors, but have different labels. For example, each of these parenting styles shares common characteristics where autonomy support and authoritativeness both consider the child as being an integral part of decision making, promote open communication between child and parent, encourage firm but warm attitudes toward parenting, and are allowing of exploratory behaviors (Baumrind, 1967; Ginsburg & Bronstein, 19934 Grolnick & Ryan, 1989; Grolnick & Slowiaczek, 1994; Steinberg, Lamborn, Dornbusch, & Darling, 1992).

The way that a parent views his or her role, the beliefs that the parent has, and the parent's engagement and behavior that influences a child are all aspects of the style of parenting (Ginsburg & Bronstein, 1993). The parenting styles authoritarian, permissive, and authoritative, introduced by Baumrind (1967), have been referenced in several parent-child relationship studies. Baumrind examined the relation between the child-rearing practices of parents and their preschool children. She observed the children in their university-based childcare system and subsequently observed and interviewed the parents of these children in their homes. Based upon

these observations and interviews, Baumrind developed an understanding of the three parenting styles mentioned above.

Based upon the observation of and interviews with parents and their children in the aforementioned childcare system, the following generalizations were made (Baumrind, 1967). An authoritarian parent stresses conformity, obedience and respect for authority. Authoritarian parents may choose extracurricular activities, class schedules, and social events for their child with no input from the child at all. Permissive parenting involves little enforcement of rules, few demands on children, and a general acceptance of behavior whether good or bad. Children of permissive parents may not be subject to a curfew, have few to no chores, and receive little direction regarding academics from their parents. Authoritative parents nurture individuality, openly communicate with their children, constructively respond to misbehavior, enforce rules, and stress learning as a responsibility of the child and parent. This type of parent may allow children to be a part of making the rules of the household. Authoritative parents may also allow for their child to express his or her individuality through the extracurricular activities and elective courses he or she chooses. Also, an authoritative parent may truly converse with and respect their child and his or her opinions.

Baumrind's (1967) results led her to the conclusion that the authoritative style of parenting fosters self- esteem, maturity, cognitive development, responsibility, and independence. Based on these conclusions, other researchers have considered the relation between parenting styles and children's motivation and achievement. For example, more research lends support to the relation between the authoritative or autonomy supportive style of parenting and relative autonomy (Grolnick & Ryan, 1989); intrinsic motivation (Ginsburg & Bronstein, 1993; Gottfried, Fleming, & Gottfried, 1994); mastery goal orientation (Gonzalez, Greenwood, & Hsu, 2001; Gonzalez, Holbein, & Quilter, 2002; Gonzalez, Willems, & Holbein, 2005); and in a mediational role between parenting styles and academic performance, control understanding, perceived competence, and perceived autonomy (Grolnick, Ryan, & Deci, 1991).

Parental Involvement

Parental involvement describes the extent to which a parent is dedicated to, takes an interest in, is knowledgeable about, and is actively participating in the child's life (Ginsburg & Bronstein, 1993; Grolnick & Slowiaczek, 1994). Grolnick and Slowiaczek (1994) hypothesized parental involvement as being multidimensional according to the following three dimensions: behavioral involvement, personal involvement, and cognitive/intellectual involvement. Behavioral involvement included participating in and regularly attending school functions, which modeled the importance of school. Personal involvement was comprised of the child's affective experiences that reflect the positive feelings that a parent has conveyed to the child by his participative and interactive engagement in all aspects of schooling. Cognitive/intellectual involvement included exposing the child to cognitively and intellectually stimulating activities and materials such as brainteasers, engaging books, and present event discussions.

These types of parental involvement have been coupled with student motivational outcomes similar to those relations found with parenting styles. For example, research has asserted a relation between parental involvement and mastery orientation (Gonzalez et al., 2002, 2005), and the mediational role that the motivational outcomes of perceived competence, control understanding, and relative autonomy played between involvement and academic performance (Grohzick & Slowiaczek, 1994). The balance between too little involvement and excessive

involvement has also been examined in the literature. According to Ginsburg and Bronstein (1993), an excessive amount of parental involvement has been positively related to extrinsic motivation suggesting that a healthy balance between excess and scarcity is necessary to determine.

Achievement Goal Theory

Achievement goal theory represents the assertion that a relation exists among several different variables including goals, motivational orientations, attributions, conceptions of ability, conceptions of self-worth, and achievement behaviors (Schunk, 2000). In a general sense, the research surrounding achievement goal theory examines the purpose behind certain achievement behaviors and the standards of evaluation students use to assess their performance (Pintrich & Schunk, 1996). One of the focal aspects of achievement goal theory is goal orientation. According to Ames (1992), a pattern of beliefs that drive an individual's engagement in and reaction to achievement situations is represented by a goal orientation. In particular, goal orientations include why individuals approach and engage in achievement tasks while considering the standards by which the individual judge their performance and success in reaching their goal (Ames, 1992). Mastery and performance goals have traditionally been the two goal orientations studied and defines (Ames & Archer, 1988; Dweck & Leggett, 1988, Urdan, 1998).

A mastery goal orientation is concerned with performing a task or behavior with the purpose of mastering it or to learn the information on a deeper level. Mastery goals are intrapersonal to a set of standards that are within an individual and that have little bearing on any normative properties. A student with a mastery goal orientation may spend a great deal of time learning and trying to understand physics because he or she has the desire to become an astronaut and believes that understanding physics is a fundamental part of the process to becoming one.

A performance approach goal orientation is focused on more normative concerns. Students adopting this type of goal are focused on performing a task for the purpose of demonstrating ability in comparison to others. The major focus would be to outperform or out-do others. A student adopting a more performance goal orientation may spend a great deal of time learning and trying to understand physics because he or she wants to get an outstanding grade or outperform others in his or her physics class.

Elliot and Harackiewicz (1996) studied the possibility of separate types of performance goals that have been proposed by many researchers in the realm of goal orientations. It has been proposed that there are actually two types of performance goals performance approach and performance avoidance. Students who adopt performance avoidance goals do so for the purpose of avoiding failure or looking incompetent (Elliot, 1997; Elliot & Church, 1997; Elliot & Harackiewiez, 1996; Middleton & Midgley, 1997; Midgley, Kaplan, Middleton, Maehr, Urdan, Anderman, & Roeser, 1998). In keeping with the aforementioned example, a student who is not concerned with truly understanding the application of physics, nor with outperforming others publicly or privately, may adopt avoidance goals such that he will do just enough to not appear less than or incapable.

This addition of the avoidance factor may assist the reader in clarifying which aspect of performance orientation is more reflective of student behavior. Though more general performance goals have sometimes been associated with more maladaptive patterns of motivation (Ames & Archer, 1988; Dweck & Leggett, 1988; Pintrich & Garcia, 1991), it may

not be that performing for some type of an external reward or in order to comply with normative standards is always detrimental to motivation and achievement. It may be that setting avoidance goals that assist students in avoiding the appearance of being incapable are those that stifle motivation (Harackiewicz, 2002). Setting a performance goal in order to complete a certain amount of work in order to receive feedback from a respected mentor or employer may not be negative if it helps a student to progress further in his or her academic career. For example, doing well in a mathematics class may help a student to maintain a certain grade point average that may lead to a scholarship, which will lead to a college education in a field that he or she has the desire to master. It may be that having a healthy balance of both mastery and performance approach goals will help to shape a highly productive student that is an authority in his or her field.

Relative Autonomy

According to Ryan and Deci (2000), self-determination theory explores the innate psychological needs and inherent tendencies that surround self-motivation, or that which drives an individual from within to act or behave. As previously mentioned, this theory examines the social and contextual factors that affect an individual's self-motivation and psychological development. According to this theory, the need for competence, relatedness, and autonomy are innate needs that motivation is dependent upon. The need for autonomy explains the "why" behind a certain behavior or activity.

This need for autonomy will be the focus of the present study, as it seems to be most closely related to mastery orientation. Connell and Ryan (1987) discussed autonomy as an individual being choiceful in his or her actions and as being the locus of initiation of those actions. In particular, autonomy concerns the extent to which the initiation and regulation of an action emanates from within (Grolnick et al., 1991). The choices being made are based upon interests and needs, but well within the realm of being responsible. This freedom and independence coupled with responsibility and constructive guidance can be highly motivating to an individual.

Self-determination theory includes a continuum that describes the level of autonomy an individual experiences while engaging in a given task (Deci & Ryan, 1985; Patrick, Skinner, & Connell, 1993; Ryan & Deci, 2000). The continuum begins with a motivation or lack of motivation to engage on one end, then proceeds to extrinsic motivation, and really to more intrinsic motivation on the other end. The ways of being motivated or how individuals incorporate social value and external contingencies and transform them into personal values are believed to be the regulatory style. The regulatory style depends on the level of autonomy that an individual is given in the particular situation. The continuum begins with a motivation and proceeds to external, introjected, identified, integrated, and finally to intrinsic. Where a student falls on this continuum describes his or her relative autonomy, or how autonomous the student believes himself or herself to be relative to the other levels of autonomy represented on the continuum. Engaging in a task for external reasons may be for a specific reward, such as candy. There is very little autonomy and self-regulation at this point in the continuum because some outside source such as a teacher or parent is facilitating the behavior.

Next, a task or behavior may require introjected regulation where the individual is engaged in order to avoid feelings of guilt or shame. It is not purely external, but the individual may have not truly accepted the reason for engagement as his own. Identified regulation

considers engagement to have originated externally to the individual, but have been accepted as one's own based upon the goals for behavior that an individual may have. The usefulness of the task or behavior for the goals that he or she has adopted is internal though the task or behavior is external or has originated from some outside source. Integrated regulation of tasks or behaviors have been fully assimilated to the values that an individual governs himself or herself by. The origin of the reasons for engagement may still be external, but they identify with some trait or permanent component of the individuals personality or character.

Finally, intrinsic regulation is based upon the most autonomous reasons for engaging in a task or behavior. The individual is self-regulated and highly autonomous because the origin of the task or behavior emanates from within the person. This continuum is referred to as part of the organismic integration theory, which is another subset of self-determination theory. Some literature exists that examines the relation between relative autonomy and achievement, and the self-regulatory aspect of autonomy.

Goal Orientation and Autonomy

Achievement goal theory's mastery orientation is related to the qualities of an autonomous child (Gonzalez et al., 2002, 2005). Exploratory, self-reliant, and intrinsically motivated characterizes the individual that adopts a mastery goal orientation. These qualities are similar to those that describe an individual that is autonomous (Ryan & Deci, 2000). From a theoretical standpoint, it would seem that an individual who is mastery oriented will be more autonomous, and a more autonomous individual will be mastery oriented. The relation between the two constructs will be examined by the present study to determine if in fact a positive relation exists, as this relation has not yet been supported by the literature in motivational research. If a positive relation exists, then the implications for fostering autonomy may contribute to the implications that a mastery orientation should also be fostered, and vice versa.

Conclusions Based upon the Literature

The present research will address two related gaps in the motivational research. One, this study will examine the relation between parenting practices and students' motivational beliefs. The particular motivational beliefs examined include important constructs from both achievement goal theory and self-determination theory. The present study will examine the extent to which three parenting styles and parental involvement can be used to predict three goal orientations and relative autonomy. The examination of the specific relation among parenting styles and parental involvement, and the three goal orientations mastery, performance approach, and performance avoidance will contribute to the small amount of research considering these variables; as will examining these parenting practices in relation to how autonomous a student believes himself or herself to be. It is hypothesized that a more authoritative parent will have a child who is more mastery oriented. Similarly, a more involved parent will foster a more mastery oriented child. As previously supported by a great deal of research, it is hypothesized that a more authoritative and involved parent will have a more highly autonomous child.

Secondly, the present study will also examine the relations among the different personal motivational beliefs. The study will also examine the relation between goal orientation and levels of autonomy. As previously mentioned, a mastery goal oriented student and a highly autonomous student share similar characteristics. Again, is there a positive relation that exists between the

level of autonomy and a mastery goal orientation? A positive relation would further imply that authoritative parenting fosters positive outcomes in both the academic and social realm of an individual. Finally, it is believed that a more mastery oriented student is also a highly autonomous one. The following method will be used to determine if support can be given to these hypotheses.

Method

Participants

Participants were 140 students (55% female) from a northern California public high school enrolled in an Algebra I course. Most participants ranged in age from 14 to 17 years, with 3 participants being ages 18, 19, and 20. The participants were primarily ninth-grade students ($n = 122$, 87%), although there were also some tenth-grade students ($n = 14$, 10%) and even fewer eleventh graders ($n = 4$, 3%). With regard to ethnicity, 52 (37%) of the students identified themselves as Hispanic, 48 (35%) as African American, 20 (14%) as White, 13 (9%) as Other, and 7 (5%) as Asian American.

Procedures

Students that returned signed consent forms completed the study in a multipurpose meeting room in groups of about 40. The researcher followed a standardized set of instructions for completing study materials and remained with each group until materials were put in a designated sealed box. The researcher returned two weeks later to administer the survey to twenty students that were absent on the actual day it was east administered.

Measures

All participants completed a self-report survey that included 76 items. Each item on this survey used a 7-point Likert scale ranging from *Not at all true* (1) to *Very true* (7), with the exception of the parental involvement scales which ranged from *Never* (1) to *Always* (7). Survey items were drawn from four separate instruments assessing parenting styles, parental involvement, goal orientations, and relative autonomy.

Perceived Parenting Style. The *Self-Report Measure of Family Functioning* (Bloom, 1985) was used to measure three different parenting style variables. For the purpose of the present study, the democratic family style (authoritative), the laissez-faire family style (permissive), and the authoritarian family style were examined. Each of the three scales included five items for each of the proposed parenting styles. The authoritative parenting scale reflected the degree to which students reported their parents as being more democratic, autonomy supportive, and open to joint decision-making ($\alpha = .67$). The permissive parenting scale reflected the degree to which participants reported their parents as being more laissez-faire, and not enforcing, creating, or being consistent with rules ($\alpha = .59$). The authoritarian parenting scale reflected the degree to which participants reported their parents as being strict and unilateral in decision-making ($\alpha = .44$).

Perceived Parental Involvement. Parental involvement was measured by items from the

Parent Involvement Measure (Keith, Reimers, Fehrmann, Pottebaum, & Aubey, 1986; Wellborn & Grolnick, 1988). This 23-item measure examined students' perceptions as to the extent of involvement that their parents had in their academic and social lives using four scales. This measure generated scores for school involvement (5 items), home involvement (7 items), cognitive involvement (5 items), and personal involvement (6 items). In order to remain consistent with the literature and because of the issue of multicollinearity, the school and home involvement scales were combined to create the behavioral involvement scale (Grolnick & Slowiaczek, 1994).

Behavioral involvement. It reflected the degree to which participants reported their parents going to school functions, and being involved or interested in their schooling while at home ($\alpha = .82$). Cognitive involvement reflected the degree to which participants reported their parents as exposing them to cognitively stimulating activities beyond schoolwork ($\alpha = .83$). Personal involvement reflected the degree to which participants reported their parents as being concerned with academic as well as social aspects of school ($\alpha = .85$).

Goal Orientations. Three goal orientations were measured using items from the Patterns of Adaptive Learning Survey (PALS) (Midgley et a1., 1998). Mastery orientation included five items that reflected the degree to which participants reported completing tasks in math in order to master new material or improve their abilities ($\alpha = .93$). The performance approach orientation scale included five items that reflected the degree to which participants reported completing their math work in order to get good grades or to perform better than others ($\alpha = .91$). Finally, the performance avoidance orientation scale included four items that reflected the degree to which participants reported completing their math work in order to avoid looking "stupid" or less able to be successful than their peers ($\alpha = .76$).

Autonomy. Each participant's level of autonomy or relative autonomy was measured using the Academic Self-regulation Questionnaire (ASRQ) (Connell & Ryan, 1986). The ASRQ examined students' reported styles of regulating behaviors that are extrinsically motivating in the realm of academics based upon a continuum from external control to autonomous self-regulation. The 24-item self-report questionnaire contained items concerning students' engagement in academic related activities such as doing homework and the reasons behind the engagement. The questions included, "When you do your homework, why do you do it?" Each question was then followed by items that reflected whether doing the homework was for fun, understanding, obedience, or avoidance of guilt. Participant's responses for these 24 items were used to create 4 subscales.

The four subscales include external regulation, introjected regulation, identified regulation, and intrinsic regulation. The external regulation scale reflected the degree to which participants reported engagement in an activity based upon avoidance of consequences or obedience of rules ($\alpha = .81$). The introjected regulation scale represented the degree to which participants reported engagement in a math activity for the purpose of gaining approval or avoiding guilt ($\alpha = .91$). The identified regulation scale indicated the degree to which the participant reported engagement for the purpose of achieving a goal that is of value to the individual ($\alpha = .91$). Finally, the intrinsic regulation scale was representative of the participant's report of engagement for the inherent enjoyment of the activity ($\alpha = .92$). The score from each of the subscales is weighted according to its level of autonomy and combined to create the Relative Autonomy Index (RAI), which describes the degree to which the individual feels autonomous in

regulating extrinsically motivating behaviors or tasks (Grolnick & Slowiaczek, 1994). Therefore, the four subscale scores were combined to reflect the composite of all scores or the RAI. These scores ranged from -14 to 14.

Results

Results are divided into three sections. First, descriptive information concerning each of the variables is presented. Second, the bivariate relations between the parenting and motivation variables are evaluated. Finally, the relations between the motivation variables, the parenting variables, and some demographic information, are examined using multiple regressions.
Descriptive Statistics
The mean and standard deviation of each of the constructs measured in this study are presented in Table 1. The means for the motivation constructs remained near the midpoint of the response scale. This finding was reflective of some of the other studies concerning parenting practices and motivation with adolescents (Gonzalez et a1., 2002, 2005; Gottfried, Fleming, & Gottfried, 1994; Lamborn et al., 1991).

Table 1*Means, Standard Deviations, and Reliabilities for Parenting and Motivation Variables*

Variable	N	M	(SD)	Range	α
Parenting Variables					
Authoritative	139	4.23	(1.29)	1-7	.67
Permissive	139	3.23	(1.26)	1-7	.59
Authoritarian	140	4.19	(1.16)	1-7	.44
Cognitive parental involvement	139	3.58	(1.61)	1-7	.83
Personal parental involvement	138	4.71	(1.70)	1-7	.85
Behavioral parental involvement	139	3.97	(1.49)	1-7	.90
Motivational Variables					
Mastery goal orientation	138	5.63	(1.47)	1-7	.93
Performance approach orientation	138	4.28	(1.78)	1-7	.91
Performance avoidance orientation	137	4.28	(1.69)	1-7	.76
Relative Autonomy Index	138	0.06	(4.13)	-14-14	.93

Note. N varies due to missing data

Bivariate Analyses

Table 2 reflects the relations among all of the parenting and student motivation variables as indicated by Pearson product-moment correlation coefficients. Generally, when considering a mastery goal orientation, students reporting more authoritative, authoritarian, or personally involved parents, also reported more intrinsic reasons for completing math assignments, while those reporting more permissive parents did not.

     Also, in regards to performance approach and avoidance goal orientations, there were no significant correlations found with parenting styles. However, when students reported their parents as being more involved, they also reported engaging in their schoolwork for reasons based upon more external or normative standards, and even some for the purpose of avoidance, which is reflective of the two respective performance orientations.

     The correlational results also indicated a significant relation between a student's level of autonomy, as indicated by the relative autonomy index (RAI), and parenting style. Students reporting more democratic and autonomy granting parents (authoritative parents) also reported feeling more autonomous in regulating their academic behaviors. In contrast to the literature, there were no significant correlations found between the RAI and parental involvement of any kind.

     Finally, the results indicate that there was a significant relation between a mastery goal orientation and a student's reported level of autonomy. These results contribute to the understanding of the relation between the two motivational variables goal orientation and autonomy. On average, students reporting more intrinsic standards for engagement in academic tasks also reported feeling more autonomous in regulating their academic behaviors.

Table 2

Correlations between Parenting Practices and Motivation Variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Parenting Variables										
1. Authoritative	--	-.05*	-.20*	.29**	.33**	.34**	.34**	.05	-.01	.29**
2. Authoritarian		--	-.50**	.17	.20*	.26**	.21*	.16	.11	-.02
3. Permissive			--	--	-.20*	-.26**	-.35**	.05	.03	
4. Behavioral Involvement					.77**	.81**	.11	.32*	.27**	
5. Cognitive Involvement					--	.70**	.05	.18*	.08	
6. Personal Involvement						--	.21*	.26**	.17*	
Motivational Variables										
7. Mastery goal orientation							--	.17*	.05	.26**
8. Perf. approach orientation								--	.78**	-.21*
9. Perf. avoidance orientation									--	-.34**
10. Relative Autonomy Index										

Note. *p < .05 **p < .01

Multivariate Analyses

       A series of two-step hierarchical multivariate recessions were utilized to examine further the relation between the parental practices and four motivational constructs. This form of analysis was chosen in order to separately evaluate the ability of each parental practice variable to predict each of the four specific motivational outcomes. The first step in each of the four regressions performed included gender and level of mother's education, which was considered to be an indicator of socioeconomic status.

       The second step in each of the four regressions performed included the two demographic variables mentioned above, the authoritative, authoritarian, and permissive parenting styles constructs, and the behavioral involvement variable. Table 3 presents the results for the two-step hierarchical regressions for each of the four motivational variables.

       Mastery orientation. When considering mastery orientation as an outcome, the first step in the hierarchical regression indicated that gender ($\beta = -.15$, $p = .07$) and level of mother's education ($\beta = .13$, $p = .12$) did not account for a significant amount of the variance in the student's report of adopting a mastery orientation (see Table 3). However, results from the second step of these analyses indicated that authoritative parenting, authoritarian parenting, permissive parenting, and behavioral involvement accounted for an additional 17% of the variance ($R^2\Delta = .17$, $p < .001$), leading to a total of 21% of the variance in student's self-reported adoption of a mastery orientation ($F(6,135) = 5.60$, $p < .001$). Authoritative parenting served as the strongest individual predictor of mastery orientation ($\beta = .30$, $p < .001$). Permissive parenting also accounted for a significant portion of the variance in adopting a mastery orientation ($\beta = .19$, $p < .05$). On average, having a more democratic and warm parent was predictive of a student being more oriented toward engaging in academic tasks for the purpose of mastery. Net of the other four predictors, gender ($\beta = -.09$, $p = .25$), level of mother's education ($\beta = .07$, $p = .41$), authoritarian parenting ($\beta = .10$, $p = .28$), and behavioral involvement ($\beta = -.02$, $p = .78$) were not significant individual predictors of a mastery orientation.

       Performance approach orientation. When considering performance approach orientation as an outcome, results from the first step in the hierarchical regression indicated that gender ($\beta = -.05$, $p = .60$) and level of mother's education ($\beta = -.01$, $p = .95$) accounted for almost none of the variance in the student's report of adopting a more performance orientation (see Table 3). However, results from the second step of these analyses indicated that authoritative parenting, authoritarian parenting, permissive parenting, and behavioral involvement accounted for 16% of the variance ($R^2\Delta = .16$, p. $< .001$) leading to a total of 16 % of the variance in student's self-reported adoption of a performance approach orientation, ($F(6,135) = 4.00$, $p < .001$). Behavioral involvement served as the strongest individual predictor of a performance approach orientation ($\beta = .34$, $p < .001$). Permissive parenting ($\beta = .24$, $p < .05$) and authoritarian parenting ($\beta = .10$, $p < .05$) also accounted for significant portions of the variance in adopting a performance approach orientation. Generally, being reported as a parent who was involved in the academic aspects of their child's life, laissez-faire in their parenting, or strict and inflexible in their parenting, predicted the child's report of engaging in academic tasks for reasons based on more normative standards. Net of the other three predictors, gender ($\beta = -.09$, $p = .26$), level of mother's education ($\beta = .03$, $p = .68$), and authoritative parenting ($\beta = 00$, $p = .97$) did not

individually predict a performance approach orientation.

   Performance avoidance orientation. In regards to a performance avoidance orientation as an outcome, the first step in the hierarchical regression indicated that gender (β = -.14, *p* = .12) and level of mother's education (β = -.16, *p* = .07) did not account for a significant amount of the variance in the student's report of adopting a performance avoidance orientation. The second step of these analyses indicate that authoritative parenting, authoritarian parenting, permissive parenting, and behavioral involvement account for 13% of the variance ($R^2\Delta$ = .13, *p.* < .05) in student's self-reported adoption of a more performance avoidance orientation, ($F(6,134)$ = 3.23, *p* < .01). Behavioral involvement served as the strongest individual predictor of a performance avoidance orientation (β = .29, *p* < .001). Having parents involved in academic activities, at both school and home, tended to serve as a predictor of student's engaging in an academic task for the purpose of avoiding failure or appearing incapable. Gender (β = -.17, *p* < .05) and level of mother's education (β = -.13, *p* < .05) also accounted for a significant portion of the variance in adopting a mastery orientation. The remainder of the other three predictors authoritative parenting (β = -.04, *p* = .65), authoritarian parenting (β = .10, *p* = .33), and permissive parenting (β = .15, *p* = .15) did not individually predict performance avoidance orientation.

Table 3

Summary of Hierarchical Regression Analysis
for Variables Predicting Motivational Outcomes

Variable	Mastery GO			Performance Approach GO			Performance Avoidance GO			RAI		
	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β
Step 1												
Gender	-.44	.25	-.15	-.17	.31	-.05	-.46	.29	-.14	1.10	.70	.13
Mother's ed. level	.10	.06	.13	-.01	.08	-.01	-.14	.08	-.16	.44	.18	.21*
Step 2												
Gender	-27	.23	-.09	-.34	.30	-.09	-.59	.29	-.17*	1.40	.70	.17*
Mother's ed. level	.05	.06	.07	.03	.08	.03	-.11	.08	-.13*	.33	.18	.15
Authoritative	.34	.10	.30***	.01	.12	.00	-.05	.12	-.04	.87	.29	.27**
Permissive	-.22	.11	-.19*	.35	.14	.24*	.20	.14	.15	-.34	.34	-.10
Authoritarian	.13	.12	.10	.32	.15	.20*	.14	.14	.10	-.16	.35	-.05
Behavioral Inv.	-.02	.08	-.02	.41	.11	.34***	.10	.10	.29*	-.11	.25	-.04

*Note.*Mastery: R^2 = .04 for Step 1; ΔR^2 = .17 (*p*<.001) for Step 2
Performance Approach: R^2 = .00 for Step 1; ΔR^2 = .16 (*p*<.001) for Step 2
   Performance Avoidance: R^2 = .04 for Step 1; ΔR^2 = .0 (*p*<.01) for Step 2
   RAI: R^2 = .06 for Step 1; ΔR^2 = .08 (*p*<.05) for Step 2
   * *p* <.05 ** *p* <.01 *** *p* <.001

Relative Autonomy. Finally, when a student's perceived level of autonomy, as indicated by the relative autonomy index, was considered as an outcome, the first step in the hierarchical regression accounted for 6% of the variance in the student's report of having a higher level of relative autonomy ($F(2,134) = 3.99$, $p < .05$). Level of mother's education ($\beta = .21$, $p < .05$) served as a significant predictor, while gender ($\beta = .13$, $p = .12$) did not. The second step of these analyses indicate that authoritative parenting, authoritarian parenting, permissive parenting, and behavioral involvement increased the amount of variance being explained by all of the predictors to 14%, ($F(6,134) = 3.47$, $p < .01$). Authoritative parenting served as the strongest individual predictor of a higher level of autonomy ($\beta = .27$, $p < .01$). Reporting a more democratic parent was predictive of student's reporting feeling more autonomous in regulating their academic behaviors. Gender also accounted for a significant portion of the variance in relative autonomy ($\beta = .17$, $p < .05$) indicating that relative autonomy may vary by gender. Level of mother's education ($\beta = .15$, $p = .07$), authoritarian parenting ($\beta = -.05$, $p = .64$), permissive parenting ($\beta = -.10$, $p = .31$), and behavioral involvement ($\beta = -.04$, $p = .66$) did not serve predict relative autonomy.

Discussion

Mastery Goal Orientation and Parenting Style and Involvement

Findings from this study generally support the view that student's perceptions about their parents' parental practices are related to their motivational attitudes and beliefs. In particular, as was hypothesized, parents who are perceived to be more authoritative, or democratic, firm, communicative with their child, nurturing, and supportive of independence have children with the tendency to adopt a mastery goal orientation. That is, they adopt goals that reflect their enjoyment of learning and for the inherent sake of learning. Multivariate analyses provide support for the positive relation of authoritative parenting and student's adoption of a mastery orientation. Specifically, students believing they had more authoritative parents reported being more mastery oriented. This finding is similar to that of Gonzalez et al., (2001, 2002, 2005) as maternal authoritativeness was significantly related to older high-school and college level students' tendency to adopt mastery goals.

Findings indicated a negative relation between students reporting permissive parents and a self-reported adoption of a mastery orientation. Specifically, students reporting permissive parents reported being less mastery oriented. This finding is similar to that of Baumrind (1967) when she observed the children of more permissive parents as being less independent and self-reliant. Perhaps the lack of guidance that often characterizes a permissive parent does not encourage the inherent interest in mastering new information and developing self-set standards for achievement that often defines mastery oriented students.

It was expected that perceived parental involvement would be related positively to a mastery goal orientation. Interestingly, multivariate analyses indicated no significant relation between behavioral involvement and the adoption of a more mastery orientation. It may be that omitting the other two parental involvement variables reduced the predictability of the parental involvement variable as a whole. It may also be that a parent involvement scale that is reflective of an older group of students' idea about what parental involvement is perceived to be will render a more concise scale that will be more predictive of motivational outcomes. As proposed by Eccles and Harold (1996), as student's transition to high school and beyond, there should

exist a healthy balance of involvement that includes guidance, but encourages autonomy also.

Nonetheless, as it pertains to the hypothesis speculating a positive relation between authoritative parenting and a mastery goal orientation, the present findings contribute to the literature describing that students who perceived their parents to be more authoritative, also perceived themselves as being more oriented toward mastery (Gonzalez et al., 2001, 2002, 2005). Similarly, in regards to the hypothesis that student's perceptions about parental involvement will relate to their adoption of a mastery goal orientation, the present findings contribute further evidence for the positive correlation that exists between certain types of parental involvement and a mastery orientation.

Performance Approach Goal Orientation and Parenting Style and Involvement

Results from the multivariate analyses indicate authoritarian parenting as a positive predictor of a performance approach orientation. Meaning, students reporting authoritarian parents also tended to report a greater performance approach orientation. If the rules of the household indicate that only an A is acceptable, a student may focus on doing whatever possible to accomplish that grade, regardless of mastery of information.

Multivariate analyses revealed a positive relation between a student's report of a permissive parent and reporting themselves as more performance approach oriented. Specifically, students' reporting their parents as being permissive was predictive of these students also reporting a more performance approach orientation. One explanation for this finding offered by the present study is that the laissez-faire parenting style may leave students no choice but to adhere to the normative standards that are sometimes imposed by the school because of the lack of standards imposed by the parents. Adhering to normative standards imposed by schools, may not always be as maladaptive if the standards are positive, functional, and lead to progress toward a broader goal.

Multivariate analyses supported a positive relation between behavioral involvement and a performance approach orientation. Results indicated that students' reporting behavioral involvement on the part of their parents was predictive of them also reporting the adoption of a performance approach orientation. Previous literature indicated no link between parental involvement and performance orientation (Gonzalez et al., 2001). Of course, the present study included a more specific measure of parental involvement, as well as the two separate types of performance orientation, which may have better reflected what parental involvement means for some students and better explained their own behaviors. It may be that having a parent involved in several aspects of a student's schooling may elicit feelings of needing to perform above and beyond not only peers, but also the standards set by the parent. The standards set by a parent may be normative in nature or based upon what they believe to be a "good grade" or a successful performance. In any case, if a student believes that his or her parent will be present for school functions, question how well he or she is doing, maintain regular contact with the teacher, and perhaps make random visits or make random phone calls to the school, the student may believe that getting better grades or doing better than classmates will render a positive report for his or her legally involved parents.

Performance Avoidance Goal Orientation and Parenting Style and Involvement

Students who believed their parents to be personally and behaviorally involved also tended to adopt a performance avoidance orientation, or to perform in order to avoid feelings of inferiority or feeling "dumb." Further, results from multivariate analyses indicated a positive relation between students reporting behaviorally involved parents and a performance avoidance orientation. Meaning, students who reported their parents as being involved in school functions and with schoolwork when in the home, adopted more performance avoidance goals. This was in contrast to findings in literature stating that no significant relation exists between adopting a more general performance orientation and parental involvement, which is consistent for both studies specifically examining performance orientation and parental involvement. (Gonzalez et al., 2001, 2002, 2005). To reiterate, the present study included a more detailed measure of parental involvement and separated the two performance orientations. Again, students whose parents were more actively involved in their lives may set goals that will allow them to avoid looking inferior or less intelligent than others. As with performance approach orientation, this avoidance occurs so that parents who have proven themselves involved to the student will receive only positive reports of their academic standing or participation in the classroom.

Autonomy and Parenting Style and Involvement

As was hypothesized, a positive relation between specific parenting practices and a student's level of autonomy was indicated by the present study. Specifically, students who perceived their parents to be more authoritative also believed themselves to be more autonomous in pursuing their schoolwork. This relation was also supported by the multivariate analyses. So, students who believe their parents to be more democratic and warm, also tend to feel more autonomous in pursuing and regulating their academic behaviors. This was similar to the earlier finding that parental autonomy support, which is analogous to authoritative parenting, was positively related to students' greater feelings of autonomy in general (Grolnick & Ryan, 1989).

In contrast to the literature, where several aspects of parental involvement showed a strong positive relation to feelings of greater autonomy, there were no significant correlations found in the present study between the student's level of autonomy and parental involvement of any kind (Grolnick & Slowiaczek, 1994). It is probable that the high school students' perceptions of acceptable and necessary parental involvement were different in terms of the perceptions of the younger middle school students found in the Grolnick and Slowiaczek (1994)'s study. If the desire for autonomy increases as students now older, then it would seem that parent involvement would include less direct supervision, and more guidance concerning the facilitation of the lessons taught to children at a younger age. Future research may include a parental involvement scale that is more reflective of adolescent's ideas about what defines an involved parent. It may also be that having a parent involved in several aspects of a student's life curtails their feelings of autonomy. The student may feel that the locus of origin for his or her actions is defined by the parent who is highly involved in his or her schooling, personal, and cognitive development. If adolescence is truly coupled with feelings of wanting to be independent and responsible for one's own behavior, having a highly involved parent may not encourage that higher level of autonomy that is being sought (Lamborn, Brown, Mounts, & Steinberg, 1992; Steinberg, Elmen, & Mounts, 1989).

Goal Orientation and Autonomy

The present study contributes to the literature regarding the relation between goal orientations and relative autonomy. These four variables have often been related to similar parenting variables such as parenting style and involvement. For example, authoritative parenting, or autonomy supportive parenting, has previously been linked to both a mastery orientation (Gonzalez et al., 2001, 2002, 2005); higher relative autonomy (Grolnick & Slowiaczek, 1994); and intrinsic motivation (Grolnick & Ryan, 1989). Present findings indicated a positive relation between adopting a mastery goal orientation and a higher level of autonomy. Specifically, students engaging in academic tasks for the sake of learning also tend to feel more autonomous in their engagement of said tasks. Significant relations were found between both mastery goal orientation and relative autonomy, and authoritative parenting. In particular, authoritative parenting was predictive of both motivational variables further reflecting their similarity to similar constructs. Future research should continue to pursue this relation as it pertains to specific aspects of different parenting styles such as decision-making patterns and allowance of exploratory behaviors. There are several components that create the authoritative parenting heading, examining the specific components may bring further insight into the actual aspects that are showing a relation to more adaptive patterns of motivation and achievement.

Limitations

One limitation of this study is in the design. Simplifying complex behaviors such as motivation, and breaking them down into a single component may exclude some of the major facets of the construct, thus compromising the multidimensional nature of this variable. For example, autonomy is a motivational variable that may not have been fully conceptualized by the survey questions given, thus limiting the scope of such a variable. Also, defining goal orientation, autonomy, parenting practices and academic success can vary among researchers. The measures used to operationalize and assist in defining these variables may not be reflective of some of the beliefs of different audiences. Therefore, the potential relations found may be more general than would be necessary for the purposes of making very specific statements about relations and designing interventions based upon the conclusions.

Also, specific statements about the causal relation among these constructs cannot be made due to the correlational design of the study. The direction of causality for obtained findings can not be determined by this type of design. The design of the analyses implies that motivational constructs such as a mastery orientation are a result of parenting variables including authoritative parenting. The opposite may be true. It may be that students who are more mastery oriented elicit more flexibility, warmth, and democracy from their parents because of their intrinsic desire to learn, master new tasks, and put forth effort in all academic endeavors.

Another limitation of the study includes the low alpha reliability for the authoritarian parenting scale. The authoritarian scale has previously indicated moderate reliability for similar age groups (Lamborn et al., 1991; Steinberg et al., 1991). It may be that the items are not being written in a way that they describe the idea of strictness, obedience to rules, and inflexibility in a manner understood by this particular population. Parents making all of the decisions in the family may not be viewed as authoritarian based upon the negative connotation that accompanies the mere word "authoritarian." Also, the item including severe punishment can be defined differently by several students leaving the item vague and open to several interpretations. Future

research should incorporate items that are more easily understood and that leave little to the interpretation of the participant. Operationalizing the terms punishment and rules may serve as a beginning to increasing the reliability of this particular scale for this population.

Another limitation of this study includes the issue of multicollinearity with the parental involvement scale. Previous research has found the behavioral, cognitive, and personal involvement scales to be separate constructs detecting three separate aspects of parental involvement (Grolnick & Slowiaczek, 1994). The present study utilized multivariate analyses to determine relations between parenting practices and motivation. Including all three of the involvement scales indicated high levels of multicollinearity and low tolerance. The researcher chose to include only the one scale that in the literature had yielded significant results and best defined the parent's active participation at the school and with schoolwork when at home that was believed to be most important to academic success and motivation. Future research may include a factor analysis of the items to determine which items are detecting separate and independent involvement practices.

Recommendation for Future Research

In addition to the several suggestions for research offered thus far, future research should also include the purposeful examination of gender as predictor of motivation and determine what role it may play in the realm of parenting practices and motivation in general. In the present study, gender served as a significant predictor of a higher relative autonomy, even when accounting for the four parenting practices and level of mother's education. Therefore, gender may influence how autonomous a student may feel. In particular, males tended to report higher levels of autonomy than females. Determining the factors that have influenced this relation is a case for future research. Gender also served as a negative predictor for a performance avoidance orientation. So, a student's gender may influence his or her adoption of a performance avoidance orientation. Regardless of the direction, it is important to continue the inclusion of gender as a significant factor in the understanding of academic motivation and success.

Future research should also consider the inclusion of the two aspects of permissive parenting that literature has proposed (Steinberg, 1994). Permissive-indulgent parenting includes warmth and affection, but with little guidance or discipline. Permissive-neglectful parenting is characterized by more indifference and unresponsiveness that includes a lack of guidance and a more laissez-faire attitude toward parenting. Perhaps the distinction between the two aspects permissive parenting will offer a more appropriate description of how the child perceives his or her parent's behaviors. This may offer more information as to the specific parenting behaviors that affect similar motivational and achievement variables.

Conclusion

Despite the limitations of the study, results present some evidence for the hypothesized relation between parenting practices and student motivation. Authoritative parenting was positively related to adopting a mastery orientation and a higher relative autonomy, indicating that this parenting style may be an important factor to consider when examining the motivational patterns of adolescents. The implications of authoritative parenting including the idea that parents should promote exploration with some limitations, shared decision-making, warmth, and firmness have been further supported by this study and research should continue to examine

these several aspects of this parenting style to determine which aspect is most influential to the specified motivational or achievement variables.

Being involved in the child's life is also an important factor for parents to consider when bearing in mind motivation. Realizing that there may exist a healthy balance between excessive and insufficient parental involvement is an important issue facing parents. It may be that students are less likely to be motivated to pursue their goals or even complete their schoolwork if their parent is too involved, or not enough involved. Exploring both ends of the spectrums may be an important implication for future research. More generally, future research should continue to examine parenting practices such as parenting style and involvement to determine the optimal situation for fostering more adaptive patterns of motivation in students.

REFERENCES

Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology*, 84, 261-271.

Ames, C. & Archer, J. (1988). Achievement goals in the classroom: Students' learning strategies and motivation processes. *Journal of EducationalPsychology*, 80, 260-267.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.

Barth, J.M. & Parke, R.D. (1993). Parent-child relationship influences on children's transition to school. *Merrill-Palmer Quarterly*, 39, 173-195.

Baumrind, D. (1967). Child care practices anteceding three patterns of preschool behavior. *Genetic Psychology Monographers*, 43- 88.

Baumrind, D. (1971). Present patterns of parental authority. *Developmental Psychology Monographs*, 4, 1-102.

Bloom, B. L. (1985). A factor analysis of self-report measures of family functioning. *Family Process*, 24. 225-239.

Deci, E. & Ryan, R. (1985). Intrinsic motivation and self-determination in human behavior. New York: Plenium.

Dweck, C. & Leggett, E. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95. 256- 273.

Eccles, J. & Harold, R. (1996). Family involvement in children's and adolescent's schooling. In A. Booth & J. Dunn (Eds.), *Family-school links: How do they affect educational outcomes* (pp. 3-34). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Eccles, J. S., Midgley, C., Buchanan, C. M., Winfield, A., Reuman, D., & MacIver, D. (1993). Development dolling adolescence: The impact of stage/environment fit on young adolescent's experiences in schools and families. *American Psychologist*, 48, 90-101.

Elliot, A. & Church, M. (1997). A hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology*, 72, 218-232.

Elliot, A. & Harackiewicz, J. (1996). Approach and avoidance achievement goals and intrinsic motivation: A mediational analysis. *Journal of Personality and Social Psychology*, 70, p. 461-475.

Epstein, J. E. (1999). School and family connections: Theory, research, and implications for integrating sociologies of education and family. *Marriage and Family Review*, 15, 99-126.

Epstein, J. L. (1989). Family structures and student motivation: A developmental perspective. In C. Ames & R. Ames (Eds.), *Research on Motivation in Education*: *Vo1.3. Goals and conditions*. Orlando: Academic Press.

Ginsburg, G. & Bronstein, P. (1993). Family factors related to children's intrinsic/extrinsic motivational orientation and academic performance. *Child Development*, 64, 1461-1471.

Gonzalez, A., Willems, P., & Doan Holbein, M. (2005). Examining the relationship between parental involvement and student motivation. *Educational Psychological Review*, 17, 50-67

Gonzalez, A., Doan Holbein, M., & Quilter, S. (2002). High school students' goal orientation and their relationship to perceived parenting styles. *Contemporary Educational Psychology*, 27, 450-470.

Gonzalez, A., Greenwood, G., & Hsu, J. (2001). Undergraduate students, goal   orientations and their relationship to perceived parenting styles. *College   Student Journal*, *35*(2), 182-192.

Gottfried, A. E., Fleming, J., & Gottfried, A. W. (1994). Role of parental   motivational   practices in children's academic intrinsic motivation and   achievement. *Journal   of   Educational Psychology*, 86, 104-113.

Grolnick, W. S., & Kurowski, C. O. (1999). Family processes and the   development   of children's academic self-regulation. *Educational   Psychologist*, 34, 3-18.

Grolnick, W. S., & Ryan, R. M. (1989). Parent styles associated with children's   academic self-regulation and competence in school.   *Journal of Educationa   Psychology*, 81, 143-154.

Grolnick, W. S., Ryan, R. M., & Deci, E. L. (1991). The inner resources for school   achievement: Motivational mediators of children's   perceptions of their   parents. *Journal of Educational Psychology*, 83, 508-517.

Grolnick, W. S., & Slowiaczek, M. (1994). Parent's involvement in children's   schooling: A multidimensional conceptualization and motivational   model. Child Development, 64, 237-252.

Harackiewicz, J., Barron, K., Pintrich, P., Elliot, A., & Thrash, T. (2002). Revision   of achievement goal theory: Necessary and illuminating. *Journal of   Educational Psychology*, 94, 638-645.

Keith, T., Reimers, T., Fehrmann, P., Pottebaum, S., & Aubey, L. (1986). Parental   involvement, homework and TV time: Direct and indirect   effects on high   school achievement. *Journal of Educational   Research*, 78, 373-380.

Lamborn, S., Brown, B., Mounts, N., & Steinberg, L. (1992). Putting school in   perspective: The influence of family, peers,   extracurricular participation, and   part-time   work   on academic   engagement. In F. M. Newmann (Ed.), *Student   engagement   and achievement in American secondary schools*. (pp. 153-   181).   New York: Teachers College Press.

Lamborn, S., Mounts, N., Steinberg, L., & Dornbusch, S. (1991). Patterns of   competence and adjustment among adolescents from authoritative,   authoritarian,   indulgent,   and neglectful families. *Child Development*, 62, 1049-1065.

Middleton, M. & Midgley, C. (1997). Avoiding the demonstration of lack of ability: An underemployed aspect of goal theory. *Journal of Educational   Psychology*, 89, 710-718.

Midgley, C., Kaplan, A., Middleton, M., Maehr M., Urdan, T., Anderman, E., &   Roeser,   R. (1998). The development and validation of scales assessing   students'   achievement   goal orientations. *Contemporary Educational   Psychology*, 23,113-131.

Pintrich, P. R. & Garcia, T. (1991). Student goal orientation and self-regulation in the   college classroom. In Advances in Motivation and Achievement, (Vo1. 7). Greenwich, CT: JAI Press.

Pintrich, P. R. & Schunk, D. (2002). *Motivation in Education: Theory, research   and   applications*. Englewood Cliffs, NJ: Prentice Hall.

Roeser, R., Midgley, C., & Urdan, T. (1996). Perceptions of the school   psychological environment and early adolescents' psychological and   behavioral   functioning   in   school: The mediating role of goals and belonging. *Journal of Educational Psychology*, 88, 408 422.

Ryan, R., & Deci, E. (2000). Self-Determination theory and the facilitation of   intrinsic motivation, social development, and well-being. *American Psychologist*, 55, 68-78.

Schunk, D. H. (1995). Inherent details of self-regulated learning includes   student

perceptions. *Educational Psychologist*, 30, 213-216.

Steinberg, L., Elmen, J., & Mounts, N. (1989). Authoritative parenting,   psychosocial maturity, and academic success among adolescents. *Child   Development*, 60, 1424-1436.

Steinberg, L., Lamborn, S., Darling, N., Mounts, N., & Dornbusch, S. (1994).   Over- time changes in adjustment and competence among   adolescents from   authoritative, authoritarian, indulgent, and neglectful families. *Child   Development*, 65, 754-770.

Steinberg, L., Lamborn, S., Dombusch, S., & Darling, N. (1992). Impact of   parenting practices on adolescent achievement: Authoritative parenting,   school   involvement,   and encouragement to succeed. *Child Development*, 65, 754-770.

Steinberg, L., Mounts, N., Lamborn, S., & Dornbusch, S. (1991). Authoritative   parenting   and adolescent adjustment across varied ecological niches.   *Journal of Research on Adolescence*, 1, 19-36.