

# **“Is it beneficial to stress grades to my child?” – Relationships between parental attitudes towards academic achievement, motivation, academic self-concept and academic achievement in adolescents.**

**Francisco Peixoto**

ISPA – Instituto Universitário  
Lisbon, Portugal

In this study we analyse the relations of parental attitudes towards academic achievement (process-centred vs. performance-centred) with self-representations, motivational orientations and academic achievement. Participants were 498 students attending 7th and 9th grades. To collect data we used a self-concept scale (Peixoto & Almeida, 1999), a scale of motivational orientations (Skaalvik, 1997), and a scale to assess parental attitudes towards academic performance (Antunes & Fontaine, 2003). Correlation analysis showed positive associations between processes centred attitudes and academic self-concept, self-esteem, task orientation, and academic achievement. Performance centred attitudes were negatively correlated with academic self-concept, self-esteem and academic achievement, and positively related to self-enhancing ego orientation, self-defeating ego orientation and avoidance orientation. Structural equation modelling revealed different paths, in the relationship between parental attitudes and academic achievement, for process centred attitudes and for performance centred attitudes. Results in this study support the idea that the perception of parental attitudes centred in the process are related to positive outcomes while parental attitudes centred on performance are related to less positive outcomes. Finally, data in this study converges with the existing literature that highlights the mediating role of individual characteristics such as self-concept and motivational orientations in the relationship between parental attitudes and academic achievement.

*Keywords:* Parental attitudes, Motivation, Self-Representations, Academic Achievement.

This paper focuses on the relationships between parental attitudes towards academic performance, self-concept, motivational orientations and school achievement.

The available literature on parent related variables such as parenting, family dynamics or family involvement in schooling assumes that variables related to family functioning are associated with school adjustment (Bagley et al., 1999; Baumrind, 1991; Harter, 1999; Eccles & Early, 1997; Flannery et al., 1996; Grolnick et al., 1999; Lord et al., 1994; Scott & Scott, 1998; Vazsonyi & Flannery, 1997; Wentzel, 1994, 1998).

Research shows that parental educational practices, parental beliefs, parental attitudes and parental involvement in schooling are usually associated with school adjustment variables such as motivational orientation, self-concept or school achievement (Antunes & Fontaine, 2003; Eccles, Jaccobs, & Harold, 1990; Eccles, Wigfield, & Schiefele, 1998; Frome & Eccles, 1998; Harter, 1999; Juang & Silbereisen, 2002; Lord, Eccles, & McCarthy, 1994; Oosterwegel & Oppenheimer, 1993; Peixoto, 2003, 2004).

Among family related variables which are linked to school adjustment, parental attitudes towards academic achievement seem to have particular relevance. As Eccles, Jacobs and Harold (1990) have suggested there are two types of parental attitude that could influence the individual's self-perceptions: parents expectations centered on academic performance and

---

Correspondence concerning this article should be addressed to Francisco Peixoto, e-mail: fpeixoto@ispa.pt

expectations centered on academic competence. In this area of research, Baião and Peixoto (2001), in a study with high school students, found that parental pressure to get good grades was negatively associated with academic self-concept, self-esteem and academic performance.

In the same vein, Antunes and Fontaine (2003), in a study with secondary school students, found evidence of a negative relationship between the attitudes of parents emphasizing academic performance and academic self-concept and academic achievement of students. Furthermore, parental attitudes emphasizing the process of learning were positively associated with these variables.

With regard to the link between parental attitudes (or practices) and school performance, several researchers have suggested that the perception of parental support, acceptance and some control over the activities of children are strong predictors of academic performance (Antunes & Fontaine, 2003; Desimone, 1999; Fan & Chen, 2001; Grolnick, Ryan, & Deci, 1991; Grolnick & Slowiaczek, 1994; Juang & Silbereisen, 2002). However, recent studies show that the relationship between characteristics of family environments and academic performance is mediated by individual variables such as motivation or self-concept (Alomar, 2006; Pienda-Gonzalez et al. 2002; Koutsoulis & Campbell, 2001; Peixoto & Carvalho, 2009; Saleiro & Peixoto, 2005; Vallerand, Fortier, & Guay, 1997; Wong, Wiest, & Cusick, 2002).

In relation to motivation research there is evidence that parental behaviour and the parent's school involvement have a crucial impact on a children's motivation (Erden & Uredi, 2008; Fontaine, 1998; Gottfried, Fleming & Gottfried, 1994; Grolnick, Ryan & Deci, 1991; Grolnick & Slowiaczek, 1994; Meece, 1994; Repinski & Shonk, 2002; Wentzel, 1998).

In our current research we have considered motivation from an Achievement Goal Theory perspective, which emerges as one of the most important theoretical frameworks in the conceptualization of motivation (Kaplan & Maehr, 2007). According to this theoretical framework motivation can be conceived from the point of view of goals that individuals want to achieve when they engage in tasks. Literature on achievement goals usually identifies two main objectives in achievement situations. The first is usually known by terms such as task orientation, mastery orientation or learning orientation, while

the second is known as ego orientation, performance orientation or ability orientation (Wigfield & Eccles, 2002; Kaplan, Middleton, Urdan, & Midgley, 2002; Pintrich, 2000; Skaalvik, 1997). From those different designations task orientation and ego orientation will be used. Task orientation can be defined as a motivational orientation in which the realization is intrinsically valuable, meaningful and rewarding for individuals, since the most important aspect is the task and its domain, independently of an extrinsic reward. Ego orientation refers to a focus on ability or performance in relation to others, where perceptions of ability tend to be normatively referenced. Students with ego orientation are concerned with social comparisons seeking to maximize favorable evaluations and minimize the negative judgments about their own competence. This orientation can lead to different goals for different students, for some the orientation can be to try to outperform the others, that is, to demonstrate superior ability, whereas for others it may be to avoid being the worst or to be seen as unintelligent. The first orientation is known as self-enhancing ego orientation (performance approach goals) and the second as self-defeating ego orientation (performance avoidance goals) (Skaalvik, 1997; Skaalvik & Skaalvik, 2005).

Research conducted within the theory of achievement goals has shown that task orientation leads to a more adaptive pattern than ego orientation. Task orientation is usually associated with positive characteristics such as persistence, effort, the use of deep approach strategies to the study, higher levels of self-efficacy and readiness for challenges (Anderman & Wolters, 2006, Kaplan & Maehr, 2007). Despite a general consensus that task orientation is more adaptive than ego orientation, the relationship between ego orientation and academic performance remains less clear (Anderman & Wolters, 2006, Kaplan & Maehr, 2007). However, when a distinction is made between self-enhancement and self-defence ego orientation the picture is much clearer. Research that distinguishes between these two types of ego orientation shows that self-defence ego orientation is clearly linked to negative results whereas self-enhancing ego orientation, in certain conditions, (for example in highly competitive contexts), can be associated with positive outcomes (Kaplan & Maehr, 2007; Pintrich, 2000).

The few studies which focus on the relationship between the adolescent's perception of parenting styles or parental attitudes and motivational

orientations from this perspective, show that ego orientation is found to be associated with authoritarian and authoritative parenting styles or perceived parental performance goals, whilst task orientation is positively associated with authoritative parenting style or mastery goal orientations (Chan & Chan, 2007; Gonida, Kiosseoglou & Voulala, 2007; Gonzalez, Holbein & Quilter, 2002; Kim, Schallert, & Kim, 2010).

The aims of the present research are: 1) to analyze the relationships between the adolescents' perceptions of parental attitudes towards academic performance and self-representations (e.g., academic self-concept and self-esteem), motivational orientations, and academic performance; and 2) to test a model of the mediation of individual variables as motivational orientations and self-concept in the relationship between perceptions of parental attitudes towards academic performance and academic achievement.

## Method

### Participants

498 students attending 7<sup>th</sup> and 9<sup>th</sup> grades from four different schools in Lisbon participated. Of these students, 241 were boys, and 257 girls, with ages ranging from 12 to 18 years. The families varied in terms of parental education. According to information given by students, the majority (49.7%) of their mothers had completed compulsory school (in Portugal, at the time of data collection this corresponded to 9th grade), 28.5% had finished Secondary School, and 21.8% had attended College. The majority of students' fathers (56%) completed compulsory school, 23.4% had finished secondary school and 20.7% had attended college. Of the 498 student respondents, 353 had never repeated a grade and 145 had retaken at least one year in previous years.

### Instruments

To collect data we used a self-concept scale, a scale of motivational orientations, and a scale to assess parental attitudes towards academic performance.

#### **Self-concept and self-esteem scale (Peixoto & Almeida, 1999).**

The self-concept and self-esteem scale was drawn from Harter's Self-Perception Profile for Adolescents, but with two main differences. First, the items format (we used one single statement

by item, instead the two in Harter's scale), and second, two new sub-scales (Portuguese Self-Concept and Mathematical Self-Concept) were added. This scale consists of 51 items distributed among 10 sub-scales (5 items in each specific dimension of self-concept and 6 in Self-esteem sub-scale), referring to School Competence (e.g. 'Some young people understand everything that teachers teach in classes'), Social Acceptance (e.g. 'Some young people are really well accepted by their colleagues'), Athletic Competence ('Some young people are very good at playing any kind of sport'), Physical Appearance (e.g. 'Some young people don't feel very satisfied with their appearance'), Romantic Appeal (e.g. 'Some young people easily manage to date the people they fall in love with'), Behavioural Conduct (e.g. 'Some young people easily get into trouble with the things they do'), Close Relationships (e.g. 'Some young people have a special friend they can share their secrets with'), Verbal Competence (e.g. 'Some young people manage to express themselves very well'), Competence in Mathematics (e.g. 'Some young people manage to solve maths problems very quickly'), and Self-Esteem (e.g. 'Some young people like the kind of person they are') (Cronbach's alpha ranging from .67 to .87). Self-esteem and self-concept items were coded 1 to 4, where 4 indicated high self-concept or high self-esteem. In this study only the results for Academic Self-Concept (an aggregate measure comprising School Competence, Verbal Competence and Competence in Mathematics) and Self-Esteem will be presented. Reliabilities for both measures are acceptable, with Cronbach's alpha of, respectively, .77 and .70.

#### **Skaalvik's motivational orientations scale (Skaalvik, 1997).**

Motivational orientations were assessed through a Portuguese version of Skaalvik's motivational orientations scale (Skaalvik, 1997, Peixoto, Mata & Monteiro, 2008). The scale presents four dimensions of motivational orientations: Self-enhancing ego orientation (e.g., 'Some students feel successful at school when they work better than their classmates'), Self-defeating ego orientation (e.g., 'Some students, when answering questions in class are concerned with how they are perceived by other students'), Avoidance orientation (e.g., 'At school, some students hope that teachers won't give them any homework') and Task orientation (e.g., 'At school, for some students, it is important to learn

something new’). Motivational orientations items were coded in a way that higher values mean higher motivational orientation. Reliabilities are acceptable with Cronbach’s Alpha ranging from .75 for Task Orientation to .86 for Self-Enhancing Ego Orientation.

**Scale of Parental attitudes towards academic performance (Antunes & Fontaine, 2003).**

The scale used to assess parental attitudes to academic performance (Antunes & Fontaine, 2003) is a 21-item measure that assesses two dimensions of parental attitudes towards academic performance: Process centred attitudes, and Performance centred attitudes. In the Process dimension items focused on a perception of parental attitudes as centred in the learning process, engendering feelings of support from parents, even when grades are low, helping students to learn with their errors (e.g., ‘When I have a lower result, my parents help me to understand what went wrong’). The items included in the performance dimension are related to a perception of parental attitudes as mainly concerned with academic achievement, in which adolescents feel their parents are pushing to obtain the highest grades at any cost, being disappointed with them when their grades are not as good as they hoped and expected (‘My parents are only satisfied if my grades are better than everyone else’). ‘My parents are only happy if my grades are better’. Parental attitudes items were coded 1 to 6, where 6 means higher perceptions of parental attitudes (either process-centered or performance centered). Reliabilities were acceptable for both dimensions, with Cronbach’s Alpha of .77 and .73, respectively for Process-centered attitudes and Performance centered attitudes.

**Results**

Let us start by presenting the correlations between the dimensions of perception of parental attitudes regarding the academic performance and other variables. As shown in the analysis of table 1, the results follow the expected pattern. Thus, the perception of Process centered attitudes correlates positively with task orientation, academic self-concept and self-esteem and negatively with avoidance orientation. In turn, the perception of parental attitudes focused on performance correlates positively with self-enhancing ego orientation, self-defeating ego orientation and avoidance, and associates negatively with academic self-concept, self-esteem and academic achievement. The strongest correlations occur between the perception of Performance-centred attitudes and the dimensions of Self-Enhancement and Self-Defeating Ego orientations and between the perception of process-centred attitudes and Task orientation.

We then tested a model of relationships between variables through the use of structural equation modelling, using the software Amos 18.0. The tested model is shown in Figure 1. The construction of this model was based on research which shows that the relationship between variables associated with family and academic achievement is mediated by individual variables as self-concept and / or motivational orientations.

The tested model revealed a poor fit to data ( $\chi^2 = 602$ ,  $p < .001$ ,  $\chi^2 / df = 2.8$ ,  $AGFI = .88$ ,  $TLI = .89$ ,  $RMSEA = .060$  [.054, .065]). In order to fit the model more effectively, we eliminated non-significant relationships ( $p > .10$ ) and added the paths suggested by the Modification Indices that made sense from a theoretical standpoint.

Process	Performance	
Task Orientation	.258***	-.018
Self-Enhancing Ego Orientation	.014	.331***
Self-Defeating Ego Orientation	-.077	.223***
Avoidance Orientation	-.129**	.148**
Academic Self-Concept	.173***	-.102**
Self-Esteem	.198***	-.135**
Academic Achievement	.113*	-.157***

Note \*  $P < .05$ ; \*\*  $P < .01$ ; \*\*\*  $P < .001$

Table 1. Correlations between perceptions of parental attitudes towards academic achievement and motivational orientations, self-concept, self-esteem and academic achievement

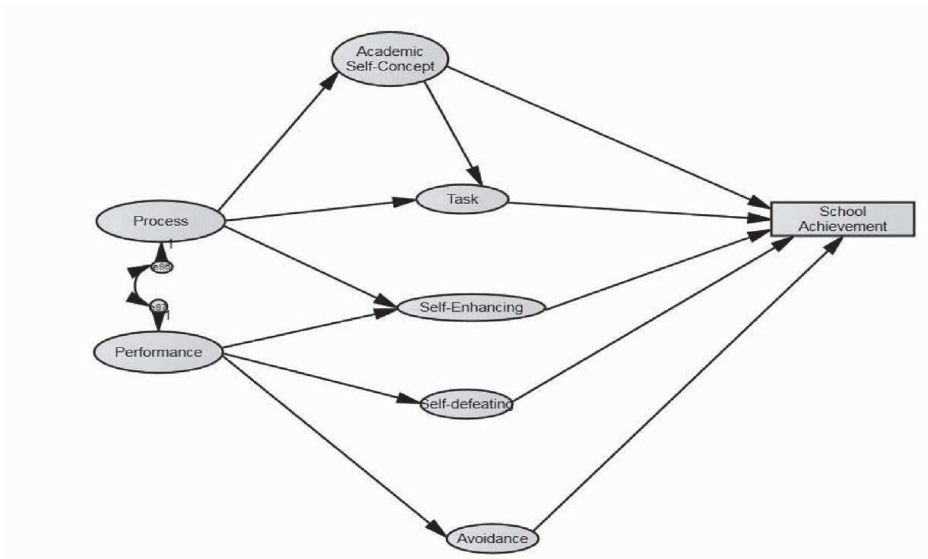


Figure 1. Model of relationships between the perceptions of parental attitudes towards achievement, academic self-concept, motivational orientations and academic achievement

These suggestions included the correlations of the residuals of task orientation with the residuals of work-avoidance orientation and self-enhancing ego orientations; also, the correlation of the residuals of self-defeating ego orientation with self-enhancing ego orientation. These correlations can be theoretically supported (Bong, 2001; Martin & Debus, 1998; Nichols & Utesch, 1998; Skaalvik, 1997; Skaalvik & Skaalvik, 2005), and they were added to the model for this reason. The modified model fits the data well ( $\chi^2 = 464$ ,  $p < .001$ ,  $\chi^2 / df = 2.1$ , AGFI = .90, TLI = .93, RMSEA = .048 [.042, .054]).

The results (Figure 2) show that the perception of parental attitudes centered on the process relates positively to academic self-concept, task orientation and self-enhancing ego orientation. The perception of Performance centered attitudes is associated positively with self-enhancing ego orientation, Self-Defeating Ego orientation and Avoidance orientation. We can also see that academic achievement is fundamentally affected by academic self-concept, despite a weak and negative relationship to avoidance orientation.

Finally, we decided to revise the model, eliminating academic self-concept in order to better understand the relationship between perception of parental attitudes and motivational orientations and the relationships between motivational orientations and academic performance. The model submitted to SEM appears in Figure 3.

From the model presented in Figure 3 the relationships between Self-Enhancement Ego Orientation and Self-Defeating Ego Orientation to Academic Performance were eliminated, because they were not significant. The resulting model (Figure 4) revealed an appropriate fit to data ( $\chi^2 = 331$ ,  $p < .001$ ,  $\chi^2 / df = 2.1$ , AGFI = .92, TLI = .94, RMSEA = .046 [.039, .053]). From the observation of Figure 4 we can see that only the dimensions of task orientation and avoidance orientation are related to academic performance, and that both dimensions of Ego Orientations (Self-Enhancement and Self-Defeating) present no significant relationships to academic achievement.

"IS IT BENEFICIAL TO STRESS GRADES TO MY CHILD?"

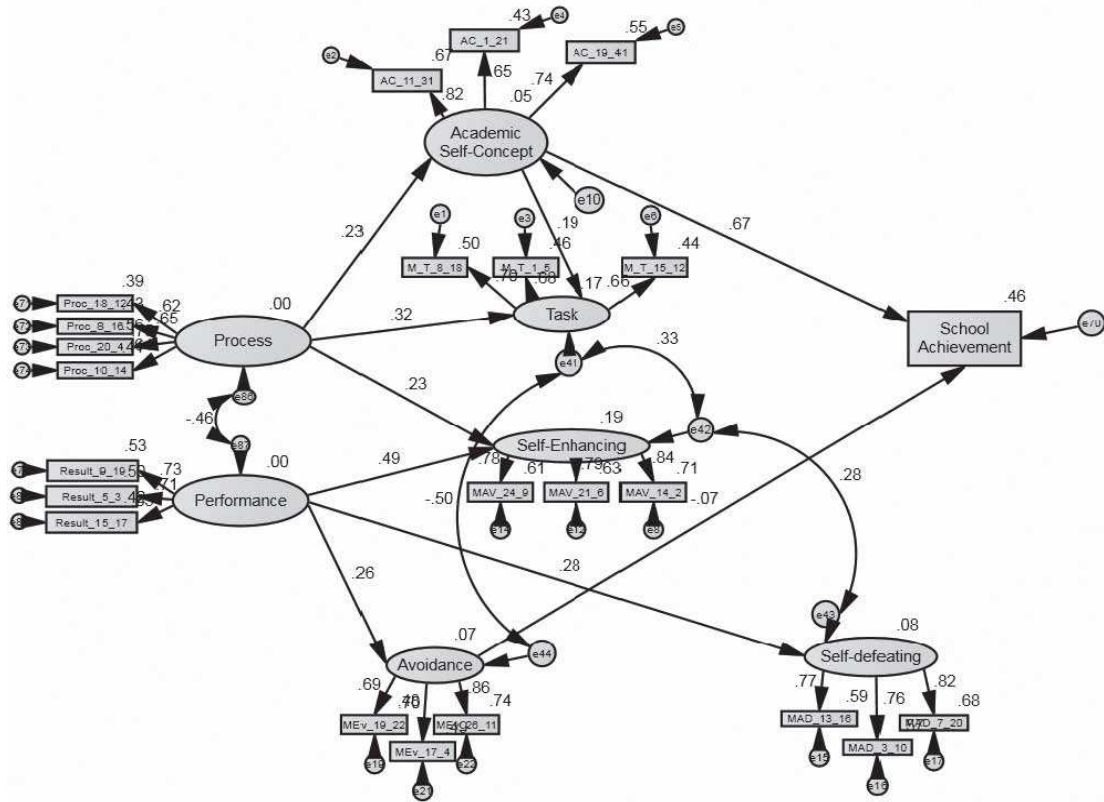


Figure 2. Results of SEM for the model of relationships between the perceptions of parental attitudes towards achievement, self-concept, motivational orientations and academic achievement

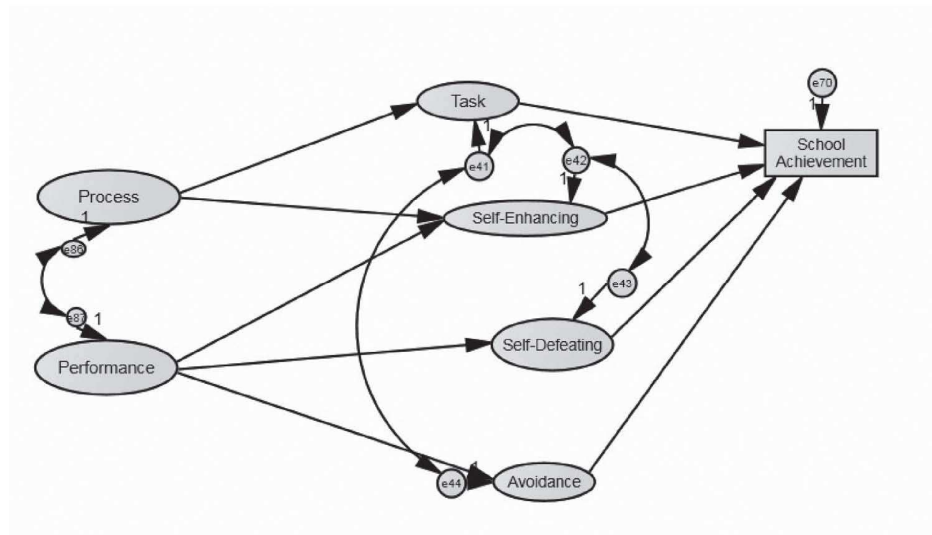


Figure 3. Model of relationships between the perceptions of parental attitudes towards achievement, motivational orientations and academic achievement

As in the previous model, the perception of parental attitudes centered on the process correlates positively with task orientation and self-enhancing Ego Orientation, while the perception of parental attitudes centered on performance also is associated with Self-Enhancement Ego Orientation but also with Self-Defeating Ego Orientation, and Avoidance Orientation. This model allows us to establish the existence of indirect positive effects of the perception of Process centered attitudes on

academic achievement through task orientation and negative indirect effects of the perception of Performance centered attitudes through Avoidance orientation. Finally, in comparing this model with that of Figure 2, we can see that there is a significant decrease in the percentage of variance explained in academic performance by the variables in the model.

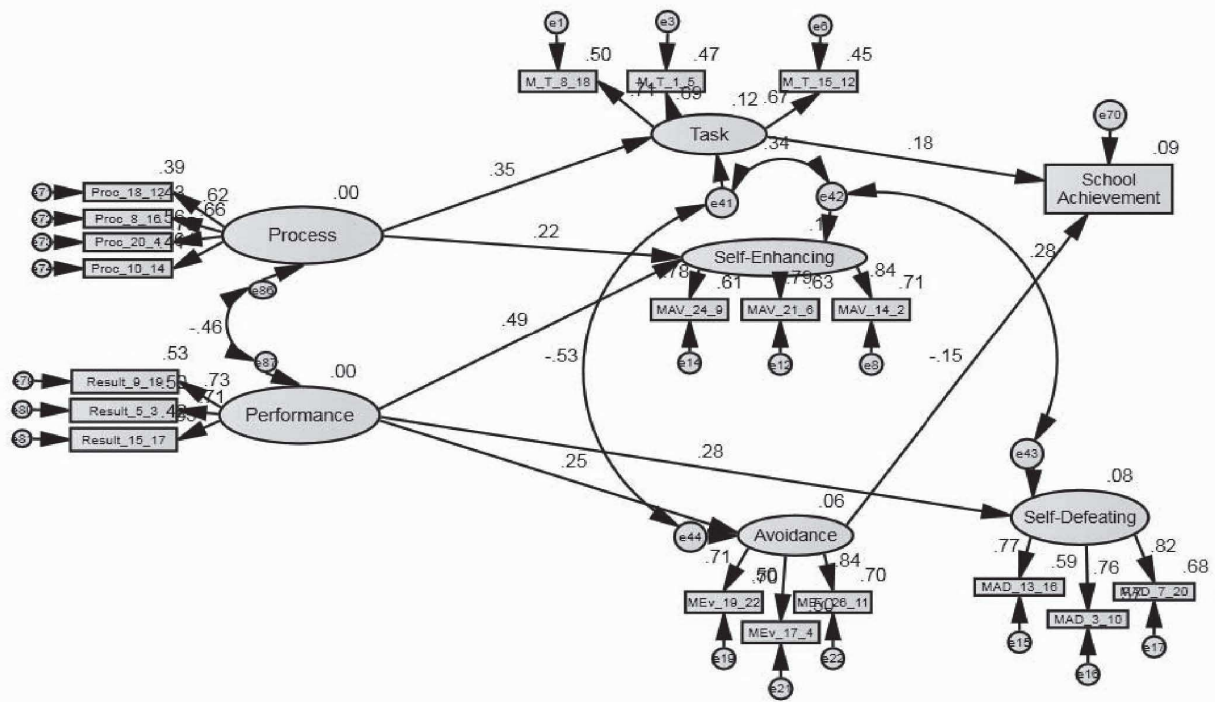


Figure 4. Results of SEM for the model of relationships between the perceptions of parental attitudes towards achievement, motivational orientations and academic achievement

### Discussion

The main purpose of this study was to analyze the relationships between perceptions of parental attitudes towards academic achievement and school adjustment indicators, such as self-representations, motivational orientations and academic performance. Results presented in this study support the hypothesis that different perceptions of parental attitudes relate differently to the student's individual characteristics. Thus, perceptions of parental attitudes focused on the learning process are positively associated with academic self-concept, self-esteem, school performance, task orientation and self-enhancing ego orientation and negatively related to

avoidance orientation. In turn, perceptions of parental attitudes focused on performance are positively related to ego orientations (both self-enhancing and self-defeating ego orientation), as well with avoidance orientation. Moreover, the perception of performance centred attitudes is negatively related with academic self-concept, self-esteem and academic achievement.

In regard to the relationship between perception of parental attitudes and self-representations (self-concept and self-esteem), the findings in this study corroborate those found in other research (Antunes & Fontaine, 2003; Peixoto & Carvalho, 2009) with the positive associations with the perception of process-centered attitudes and negative relationship with

the perception of attitudes focused on performance.

With respect to goal orientations, we found positive relationships between perceived parental attitudes centred in the process and task orientation, whereas the perception of performance centred attitudes were predominantly associated with ego orientations (both self-enhancing and self-defeating). This finding converges with the existing literature that shows the existence of positive associations between parental attitudes or practices that exert more pressure on students and extrinsic motivation or motivational orientations directed toward performance (Bronstein et al., 2005, Chan & Chan, 2007; Gonida et al., 2007, Gonzalez et al., 2002). One possible explanation is that when parents are mostly concerned with academic performance, this probably emphasizes aspects of competition and processes of social comparison. Thus, it is not surprising that self-enhancing ego orientation was the motivational orientation that showed a stronger association with perception of parental attitudes focused on performance, since social comparison is the core aspect of self-enhancing ego orientation.

The results from the analysis with structural equation modelling allow us to verify the patterns of relations between the perceptions of parental attitudes towards academic achievement, the self-representations, the motivational orientations and school performance more clearly.

Firstly, following on previous research (Koutsoulis & Campbell, 2001; Peixoto & Carvalho, 2009; Saleiro & Peixoto, 2005; Vallerand et al., 1997, Wong et al., 2002), the effects of perceived parental attitudes on academic performance is not direct, but through self-representations and motivational orientations of students. Moreover, the impact on academic performance comes primarily from academic self-concept which is affected by the perception of process-centered attitudes. In turn, the perception of performance-centered attitudes affects academic performance negatively (despite being an effect of low magnitude), with an indirect effect mediated by avoidance orientation. The models also allow us to show a clear differentiation between the two types of perceptions of parental attitudes: process centred attitudes relate positively with the variables indicating a better school adjustment (academic self-concept and task orientation), whereas the perception of performance-centered

attitudes is linked to motivational orientations considered less adaptive in terms of school (self-defeating ego orientation and avoidance orientation). These results are consistent with other research showing a positive association between the perception of Mastery Goals (which can be considered as similar to the perceptions of parental attitudes centered on the process) and more adaptive outcomes of students, such as motivational orientations more adjusted to the school (Mastery / Task Orientation) or better academic performance (Friedel, Cortina, Turner, & Midgley, 2007; Gonida et al., 2007).

The results also showed that the relationship between perception of parental attitudes and motivational orientations is weak, with the variability explained in each proving to be relatively low (ranging between 6% for avoidance orientation and 19% for self-enhancement ego orientation). This result supports the idea that, although variables related to family may have a role in students' motivational orientations, the major part of responsibility for students motivational orientations seems to lie in the learning environments.

A final note on the implications of the results presented here. Although the study is based on the perception adolescents have of parental attitudes, we can presume corresponds to attitudes that parents manifest in their relationships with them. Thus, an important implication of this work involves the observation that to focus excessively on the final outcome (i.e., in the grade) the parents may be reaping a different result from the one they had intended. Focusing on school performance and stressing the importance of grades does not necessarily contribute to better grades and can even be negatively related to school achievement. Moreover, perceived parental attitudes focusing on performance can promote less desirable motivational orientations (ego and work-avoidance orientations) which are usually related to less adaptive outcomes such as less involvement in school work (Anderman & Wolters, 2006; Elliot & Covington, 2001; Kaplan et al., 2002). Thus, in order to contribute positively to more adaptive motivational and learning patterns from their children, parents must mainly be concerned with the learning process, involved in it, providing support and giving appropriate feedback, instead of emphasizing grades and academic performance.

## References



- Alomar, B. O. (2006). Personal and family paths to pupil achievement. *Social Behavior and Personality*, 34, 907-922.
- Anderman, E. M., & Wolters, C. A. (2006). Goals, values, and affect: Influences on student motivation. In P. A. Alexander & P. H. Winne (Eds.), *Handbook of educational psychology* (2nd ed., pp. 369-389). Mahwah, NJ: Erlbaum.
- Antunes, C., & Fontaine, A. M. (2003, August). *Adolescents' perceptions of their parents' attitudes towards academic performance: Their relation with academic performance, academic self-concept and global self-esteem*. Paper presented at the 10th Conference of European Association for Research on Learning and Instruction, Nicosia.
- Bagley, C., Mallick, K., Verma, G., Bolitho, F., Bertrand, L., Madrid, S., & Tse, J. (1999). Adjustment, stress and family life in adolescents in Canada, Britain, Hong Kong, India, Pakistan and the Philippines. *International Journal of Adolescence and Youth*, 7, 263-278.
- Baião, G., & Peixoto, F. (2001, Novembro). *Autoconceito, auto-estima e pressão familiar para o sucesso académico em adolescentes* [Self-concept, self-esteem and parental pressure to academic achievement in adolescents]. Poster presented at the IIth Congress "Família, Saúde Mental e Políticas Sociais", Lisboa.
- Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance use. *Journal of Early Adolescence*, 11, 56-95.
- Bong, M. (2001). Between- and within-domain relations of academic motivation among middle and high school students: self-efficacy, task-value, and achievement goals. *Journal of Educational Psychology*, 93, 23-34.
- Bronstein, P., Ginsburg, G. S., & Herrera, I. S. (2005). Parental predictors of motivational orientation in early adolescence: A longitudinal study. *Journal of Youth and Adolescence*, 34, 559-575.
- Chan, K., & Chan, S. (2007). Hong Kong teacher education students' goal orientations and their relationship to perceived parenting style. *Educational Psychology*, 27, 157-172.
- Desimone, L. (1999). Linking parent involvement with student achievement: Do race and income matter? *Journal of Educational Research*, 93, 1-30.
- Eccles, J. S., & Early, D. (1997). The relation of connection, regulation and support for autonomy adolescents' functioning. *Journal of Adolescent Research*, 12, 263-287.
- Eccles, J. S., Jaccobs, J. E., & Harold, R. D. (1990). Gender role stereotypes, expectancy effects and parents socialization of gender differences. *Journal of Social Psychology*, 46, 183-201.
- Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values, and goals. *Annual Review Psychology*, 53, 109-132.
- Eccles, J. S., Wigfield, A., & Schiefele, U. (1998). Motivation to succeed. In W. Damon (Series Ed.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology: vol. 3. Social, emotional and personality development* (5<sup>a</sup> ed., pp. 1017-1095). New York: John Wiley & Sons.
- Elliot, A. J., & Covington. (2001). Approach and avoidance motivation. *Educational Psychology Review*, 13, 73-92.
- Erden, M., & Uredi, I. (2008). The effect of perceived parenting styles on self-regulated learning strategies and motivational beliefs. *International Journal about Parents in Education*, 2, 25-34.
- Fan, X., & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-analysis. *Educational Psychology Review*, 13, 1-22.
- Flannery, D. J., Vazsonyi, A. T., & Rowe, D, C. (1996). Caucasian and hispanic early adolescent substance use: Parenting, personality, and school adjustment. *Journal of Early Adolescence*, 16, 71-89.

- Fontaine, A. M. (1988). Práticas educativas familiares e motivação para a realização dos adolescentes. *Cadernos de Consulta Psicológica*, 4, 13-30.
- Friedel, J. M., Cortina, K. S., Turner, J. C., & Midgley, C. (2007). Achievement goals, efficacy beliefs and coping strategies in mathematics: The roles of perceived parent and teacher goal emphases. *Contemporary Educational Psychology*, 32, 434-458.
- Frome, P. M., & Eccles, J. S. (1998). Parents' influence on childrens' achievement-related perceptions. *Journal of Personality and Social Psychology*, 74, 435-452.
- Gonida, E. N., Kiosseoglou, G., & Voulala, K. (2007). Perceptions of parent goals and their contribution to students' achievement goal orientation and engagement in the classroom: Grade level differences across adolescence. *European Journal of Psychology of Education*, 22, 23-39.
- Gonzalez, A. R., Holbein, M. F. D., & Quilter, S. (2002). High school students' goal orientations and their relationship to perceived parenting styles. *Contemporary Educational Psychology*, 27, 450-470.
- Gonzalez-Pienda, J. A., Carlos Nunez, J., Gonzalez-Pumariega, S., Alvarez, L., Roces, C., & Garcia, M. (2002). A structural equation model of parental involvement, motivational and aptitudinal characteristics, and academic achievement. *Journal of Experimental Education*, 70, 257-287.
- Gottfried, A. E., Fleming, J. S., & 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., & Gurland, S. T. (1999). Family processes and the development of children's self-regulation. *Educational Psychologist*, 34, 3-14.
- Grolnick, W. S., Ryan, R. M., & Deci, E. L. (1991). 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. L. (1994). Parents' involvement in children's schooling: A multidimensional conceptualization and motivational model. *Child Development*, 65, 237-252.
- Harter, S. (1999). *The construction of the self: A developmental perspective*. New York: The Guilford Press.
- Juang, L. P., & Silbereisen, R. K. (2002). The relationship between adolescent academic capability beliefs, parenting and school grades. *Journal of Adolescence*, 25, 3-18.
- Kaplan, A., & Maehr, M. L. (2007). The contributions and prospects of goal orientation theory. *Educational Psychology Review*, 19, 141-184.
- Kaplan, A., Middleton, M. J., Urdan, T., & Midgley, C. (2002). Achievement goals and goal structures. In C. Midgley (Ed.), *Goals, goal structures and patterns of adaptive learning* (pp. 21-53). Mahwah, NJ: Erlbaum.
- Kim, J.-I., Schallert, D. L., & Kim, M. (2010). An integrative cultural view of achievement motivation: Parental and classroom predictors of children's goal orientations when learning mathematics in Korea. *Journal of Educational Psychology*, 102, 418-437.
- Koutsoulis, M. K., & Campbell, J. R. (2001). Family processes affect students' motivation, and science and math achievement in Cypriot high schools. *Structural Equation Modeling*, 8, 108-127.
- Lord, S. E., Eccles, J. S., & McCarthy, K. A. (1994). Surviving the junior high school transition, family processes, and self-perceptions as protective and risk factors. *Journal of Early Adolescence*, 14, 162-199.
- Lord, S. E., Eccles, J. S., & McCarthy, K. A. (1994). Surviving the junior high school transition, family processes, and self-perceptions as protective and risk factors. *Journal of Early Adolescence*, 14, 162-199.
- Martin, A. J., & Debus, R. L. (1998). Self-reports of mathematics self-concept and educational outcomes: The roles of ego-dimensions and self-consciousness. *British Journal of Educational Psychology*, 68, 517-535.

- Meece, J. L. (1994). The role of motivation in self-regulated learning. In D. H. Schunk & B. J. Zimmerman (Eds.), *Self-regulation of learning and performance* (pp. 25-44). Hillsdale, NJ: Erlbaum.
- Nichols, J. D., & Utesch, W. E. (1998). An alternative learning program: Effects on student motivation and self-esteem. *The Journal of Educational Research*, 91, 272-278.
- Oosterwegel, A., & Oppenheimer, L. (1993). *Developmental changes between and within self-concepts*. New Jersey: Lawrence Erlbaum Associates.
- Peixoto, F. (2003). *Auto-estima, autoconceito e dinâmicas relacionais em contexto escolar* [Self-esteem, self-concept and relational dynamics in school context]. Unpublished doctoral dissertation, University of Minho, Braga, Portugal.
- Peixoto, F. (2004). Qualidade das relações familiares, auto-estima, autoconceito e rendimento académico [Quality of family relationships, self-esteem, self-concept and academic achievement]. *Análise Psicológica*, 22, 253-244.
- Peixoto, F., & Almeida, L. S. (1999). Escala de auto-conceito e auto-estima [Self-concept and self-esteem scale]. In A. P. Soares, S. Araújo, & S. Caires (Eds.), *Avaliação psicológica: Formas e contextos* (Vol. VI, pp. 632-640). Braga: APPORT.
- Peixoto, F., & Carvalho, R. (2009). Parental attitudes toward academic achievement: Effects on motivation, self-concept and school achievement. In M. Wosnitza, S. Karabenick, A. Efklides, & P. Nenniger (Eds.), *Contemporary motivation research: From global to local perspectives* (pp.279-297). Göttingen & New York: Hogrefe & Huber.
- Peixoto, F., Mata, L., & Monteiro, V. (2008, Outubro). *Adaptação da escala de orientações motivacionais de Skaalvik*. [Adaptation of Skaalvik's motivational orientations scale]. Poster presented at the " XIII Conferência Internacional Avaliação Psicológica: Formas e Contextos". University of Minho, Braga.
- Pintrich, P. R. (2000). An achievement goal theory perspective on issues in motivation terminology, theory, and research. *Contemporary Educational Psychology*, 25, 92-104.
- Repinski, D. J., & Shonk, S. M. (2002). Mothers' and fathers' behavior, adolescents' self-representations and adolescents' adjustment: A mediational model. *Journal of Early Adolescence*, 22, 357-383.
- Saleiro, F., & Peixoto, F. (2005, August). *Quality of family relationships and school achievement: Relationships with self-esteem, academic self-concept and goals orientations in 12th grade students*. Paper presented at the 11th Conference of the European Association for Research on Learning and Instruction, Budapest.
- Scott, R., & Scott, W. A. (1998). *Adjustment of adolescents: Cross-cultural similarities and differences*. London: Routledge.
- Skaalvik, E. M. (1997). Self-enhancing and self-defeating ego orientation: Relations with task and avoidance orientation, achievement, self-perceptions, and anxiety. *Journal of Educational Psychology*, 89, 71-81.
- Skaalvik, S., & Skaalvik, E. M. (2005). Self-concept, motivational orientations, and help-seeking behavior in mathematics: A study of adults returning to high school. *Social Psychology of Education*, 8, 285-302.
- Vallerand, R. J., Fortier, M. S., & Guay, F. (1997). Self-determination and persistence in a real-life setting: Toward a motivational model of high school dropout. *Journal of Personality and Social Psychology*, 72, 1161-1176.
- Vazsonyi, A. T., & Flannery, D. J. (1997). Early adolescent delinquent behaviors: Associations with family and school domains. *Journal of Early Adolescence*, 17, 271-293.
- Wentzel, K. R. (1994). Family functioning and academic achievement in middle school: A socio-emotional perspective. *Journal of Early Adolescence*, 14, 268-291.
- Wentzel, K. R. (1998). Social relationships and motivation in middle school: The role of parents, teachers and peers. *Journal of Educational Psychology*, 90, 202-209.

Wong, E. H., Wiest, D. J., & Cusick, L. B. (2002). Perceptions of autonomy support, parent attachment, competence and self-worth as predictors of motivational orientations and academic achievement: An examination of sixth-and-ninth, grade regular education students. *Adolescence*, 37, 255-266.