

# PARENTAL CONTROL OF CHILD AS A PREDICTOR OF ACADEMIC PROCRASTINATION

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## ABSTRACT

This research aims to examine the relationship between the parental control of school duties in the first five grades of elementary school and academic procrastination on college. A new method was designed to assess the level of parental control of school duties. To assess procrastination, modified versions of Lay's Procrastination Scale for Students (PSS) and Procrastination Assessment Scale for Students (PASS) were used. The questionnaires were filled in by 155 students of Czech universities. Moreover, 102 parents of these students self-assessed their level of parental control. Polynomial multiple regression showed a significant quadratic relationship between parental control and procrastination. As predicted based on previous research, the results showed a strong positive relationship between parental control and procrastination for higher levels of parental control, and a weak, but still significant, negative relationship between parental control and procrastination for lower levels of parental control.

## KEYWORDS

Education, parental control, parental styles, procrastination, self-regulation

## Introduction

This study focuses on the relationship between academic procrastination and the level of parental control of school duties which the child was exposed to during first five grades of primary school. We understand academic procrastination as postponing work on school duties based on free will of the individual (Milgram, Mey-Tal and Levison, 1998), which leads to strong discomfort of the individual (Solomon and Rothblum, 1984) and creates a need to justify their behaviour to themselves (Ellis and Knaus In Vahedi, Mostafafi and Mortazanajad, 2009). The definition of parental control is based on research by Sad and Gürbüzürka (2013). The control of child's behaviour is a combination of the following factors: regular checks of child's everyday school duties, help with learning and preparation for exams, organization of child's free time (i.e. dividing the time for work and play), presence of manipulative and stressing practices or rewards and praise in case of child's success (i.e. system of rewards and punishments) and involvement in school affairs (e.g. regular attendance of PTA meetings).

The topic of procrastination has been heavily researched in recent years (Steel, 2007). The reason for that is an increasing number of procrastinating people in society as well as the major negative impacts of this behaviour on individual's life. About 50% of college students admit to regular procrastination that causes them numerous problems (Solomon and Rothblum, 1984; Milgram et al., 1998). For example, Tice and Baumeister (1997) showed that procrastinating students tend to have worse school results and more health complications at the end of a semester than their non-procrastinating peers. So far, the research on the causes of procrastination predominantly focused on personality dispositions such as perfectionism (Kaur and Kaur, 2011), self-efficacy and anxiousness (Haycock, McCarthy and Skay, 1998; Ferrari, Parker and Ware, 1992) and other intrapersonal characteristics (Özer, Demir and Ferrari, 2009; Rosário et al., 2009). Less attention has been devoted to external influences, such as family. Onwuegbuzie (2000) suggested aiming future research towards the social environment of an individual which contains variables that may contribute the development of procrastination.

The influence of parents on children in primary family might be one of the most important variables predicting later academic procrastination. Children spend most of their time with their parents and the parents may have major influence on shaping children's attitudes towards fulfilling duties. The relationship between procrastination or related variables (e.g. self-regulation, school results) and three parenting styles defined by Baumrind (1966) was empirically researched. In permissive parenting style, parents fully accept all wishes and forms of behaviour of their child. This parenting style does not involve punishments and the child is left to regulate their behaviour all by himself or herself. Authoritarian parenting style is on the opposite side of the spectrum. Parents try to shape and control child's behaviour according to a strict set of rules which are presented to the child in an absolutist manner. Parents often punish the child which substantially reduces child's autonomy. The third parenting style is called authoritative. It emphasises the development of child's autonomy and self-regulation. Parents require child to fulfil their duties, but do not use a system of punishments and prohibitions. Authoritative parenting style seeks a compromise between child's freedom and the development of responsibility. It is clear from their definitions that these parenting styles are associated with different levels of parental control and therefore probably also with different levels of parental control of school duties. A permissive parent is likely to control the child's fulfilment of school duties only minimally. An authoritative parent is likely to use a medium level of parental control of school duties and an authoritarian parent is likely to control child's fulfilment of school duties the most. Given this perspective, we consider studies focused on parenting styles to be the main source of insight into the relationship between the level of parental control and procrastination.

In previous research, the effect of authoritarian parenting style on child's school success is described to the greatest extent. Using this style, parents gain psychological control over their children through manipulation which decreases child's performance and motivation and therefore causes the formation of the tendency to procrastinate (Mih, 2013). High levels of parental criticism towards children are also a distinct predictor of academic procrastination (Frost, Heimberg, Holt, Mattia and Neubauer, 1993). Furthermore, high demands on the child may cause increased perfectionism (Mih, 2013) which may consequently lead to procrastination as the child is not willing to work on the task for the fear of an inadequate result. On the contrary, authoritative parenting style positively correlates with the ability to deeply process learned information and induces effort and persistency in learning (Mih, 2013), hence may lead towards a lower tendency to procrastinate. The effect of permissive parenting style has not yet been explored in great detail. Huang and Prochner (2004) and Piotrowski et al. (2012) conducted studies about the effect of permissive parenting style on self-regulation and found a weak negative relationship. This helps us in estimating the basic trend in the relationship between permissive style and procrastination as procrastination is negatively related to self-regulation.

We presume that highly controlling parents take over their child's responsibility of organizing efforts in fulfilling school duties and diminish the chance that the child will form healthy self-control and habits for successful task fulfilment. The system of external rewards and punishments may also substitute child's intrinsic motivation for extrinsic motivation. A child of highly controlling parents, similarly to one of authoritarian parents, should therefore have lower motivation, higher fear of failure, and thus a higher tendency to procrastinate. A child of non-controlling parents should be less sensitive to external demands and less able to deal with them due to a non-demanding manner of permissive parenting. Since the child didn't need self-regulation during childhood, it is less likely to have learned it and thus more likely to procrastinate in future. A child of medium controlling parents have the least tendency to procrastinate. Such a child should be accustomed to external demands and at the same time their intrinsic motivation should not be suppressed by excessive punishments and rewards. He or she is likely able to independently develop healthy self-control and habits for successful task fulfilment. In current study, examine how parental control of school duties in first grades of primary school predicts future academic

procrastination on college. We focused on the early school age because work habits learned in childhood have a major impact on work abilities in adulthood (Corno and Xu, 2004). Based on previous research, we hypothesized that a nonlinear relationship exists between parental control of school duties and future academic procrastination in which high and low levels of parental control predict higher level of academic procrastination.

## **Methods**

### **Sample**

The data were collected from 153 Czech college students (87 women, 66 men) and 100 of their parents. The sample was recruited based on the availability of students with roughly the same academic workload. Only the students who a) were enrolled in at least one class with mandatory attendance, b) had to finish at least 5 and no more than 20 assignments, essays or projects and c) had to pass at least 4 and no more than 10 final exams (all in one semester) were recruited. These criteria were employed to exclude students with extremely low or high demands in one semester, because it could affect their scores of procrastination.

### **Methods**

Two questionnaires were used. The first assessed the level of academic procrastination and the second assessed the level of parental control. The latter questionnaire had two versions - one for students and one for their parents - which were identical in their content.

#### *Parental control of school duties questionnaire*

Since there is no suitable method for in-depth assessment of the level of the parental control of their child's school duties, we created a new questionnaire for this research. This questionnaire consists of 15 items in which students reflect on their experience of the parental control of their school duties from the first five grades of primary school on five-point Likert scale. This questionnaire was loosely inspired by Turkish Parental Involvement Scale used by Sad and Gürbüzürk (2013). Some items were adopted (e.g. help with homework, communication with teachers and usage of rewards and punishments) and new items were added to cover all the facets of parental control. Prior data collection, we conducted a cognitive interview with 6 representatives of our target population. This interview confirmed the clarity of all items. The final questionnaire was highly internally consistent in the version for students ( $\alpha = .89$ ) as well as parents ( $\alpha = .93$ ).

#### *Academic procrastination questionnaire*

This questionnaire is a combination of two existing student procrastination scales. The first one is PASS (Procrastination Assessment Scale for Students). From this scale we used the part that assesses academic procrastination prevalence. This part consists of 12 five-point Likert scale items of which 6 focus on the tendency to postpone work on tasks in various parts of academic functioning and the other 6 items explore to what extent this is seen as a problem by the student (Solomon and Rothblum, 1984 In Gabrhelík, 2008). To describe facets of procrastination omitted in PASS (e.g. the tendency to engage in other activities instead of working on an assigned task), we also used modified version of Lay's Procrastination Scale for Students (PSS). We excluded 8 items, which were irrelevant to the academic context, and added 7 new items that focused on facets of academic procrastination not covered in the original version of PSS (e.g. problems with estimating difficulty of tasks, attendance and time management). Some of the new items were inversely scored versions of already covered facets. The modified PSS consists of 19 items rated on a five-point Likert scale. The final questionnaire showed high internal consistency ( $\alpha = .95$ ).

### **Procedure**

Students who met above stated requirements on academic workload and whose parent agreed with participating in this study were sent a link to the questionnaires. After a student filled in the questionnaires, a unique link to the parent version of the parental control questionnaire was generated. The student was then asked to send this unique link to the parent who was more involved in the control of his or her school duties in primary school.

## Results

Two polynomial regressions were employed to analyse relationship between academic procrastination on collage and parental control of school duties at primary school as assessed by students and their parents. Student assessed control and parent assessed control share only 70% of variance ( $r = .85$ ,  $p < 0,001$ ) and thus were analysed separately. All variables have nearly normal distribution and their descriptive statistics can be found in Tab. 1. This table also shows descriptives after excluding cases with missing data, which were used in regression analyses. As the means remained unchanged after the exclusion of incomplete cases, any relationship of missing data with analysed phenomena is highly unlikely. Two models were tested in each regression: linear model (model 1) with parental control being the only predictor and quadratic model (model 2), which also included parental control squared. The data have met requirements for employing polynomial multiple regression in both cases. Both variables of parental control were centred on means to ensure easier interpretation and eliminate multicollinearity.

Variable	N	M	SD	Min	Max	Correlations		
						P	PCS	PCP
Procrastination (P)	166	93,31	25,82	36	149			
Parental control – student (PCS)	170	46,53	12,23	15	75	.274**		
Parental control – parent (PCP)	111	47,41	13,34	15	75	.344**	.855**	
Parental control – student*	155	46,65	12,39	15	75			
Parental control – parent*	100	47,33	13,95	15	75			

\*values after excluding cases with missing data in Procrastination

**Tab. 1: Descriptive statistics and Pearson correlations of variables**

The first regression analysed the relationship between procrastination and the parental control assessed by students. In this case, a linear model explains 8% of variance ( $F(1, 153) = 12.21$ ,  $p < .01$ ,  $R^2 = .08$ ). Adding a quadratic form of the predictor increased explained variance significantly by 10 percentage points ( $F(2, 152) = 16.92$ ,  $p < .001$ ,  $R^2 = .18$ ) which supported our hypotheses of the nonlinear relationship between procrastination and parental control. The positive  $\beta$  value of the quadratic predictor implies a U-shaped relationship in which the level of procrastination is high for low levels of parental control, then decreases and reaches the minimum in 37.78 points of parental control, and finally increases again with the increasing level of parental control (see Tab. 2).

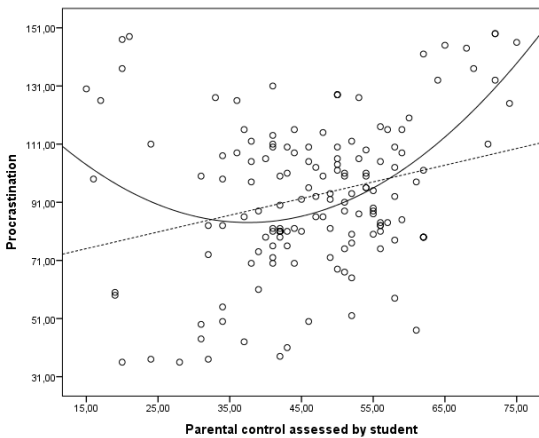
Variable	Assessed by students						Assessed by parents					
	Model 1			Model 2			Model 1			Model 2		
	<i>B</i>	<i>SE</i>	$\beta$	<i>B</i>	<i>SE</i>	$\beta$	<i>B</i>	<i>SE</i>	$\beta$	<i>B</i>	<i>SE</i>	$\beta$
Constant	93,22***	2,03		87,26***	2,33		92,94***	2,77		82,64***	3,23	
PC	.57**	.16	.27	.71***	.16	.34	.73**	.2	.34	1,12***	.2	.53
PC <sup>2</sup>				.04***	.01	.34				.05***	.01	.47
<i>R</i> <sup>2</sup>		.08**			.18**			.12			.30	
$\Delta R^2$					.11**						.18**	

\*\*p < 0,01; \*\*\*p < 0,001

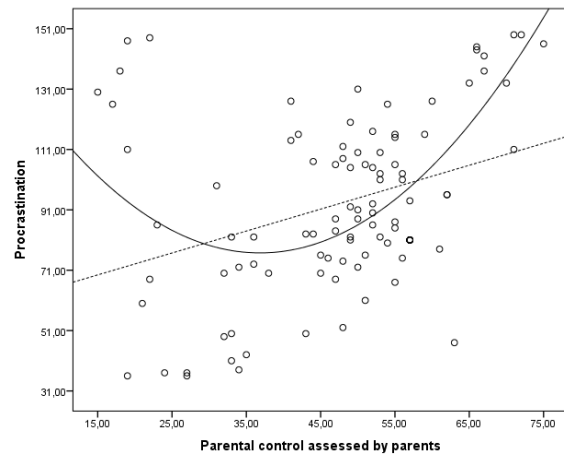
**Tab. 2 Polynomial multiple regressions of centred parental control on procrastination**

For the parental control assessed by parents, the second regression matches the results of the first one. The only differences are more explained variance for a linear ( $F(1, 98) = 13.20, p < .01, R^2 = .12$ ) as well as quadratic model ( $F(2, 97) = 20.77, p < .001, R^2 = .30$ ) and a more dramatic increase of explained variance after adding a quadratic form of the predictor (by 18 percentage points). This regression function reaches its minimum at 36.13 points of parental control.

Despite a strong quadratic relationship, the significant  $\beta$  coefficient implies a positive trend between the predictors and the dependent variable. It is also evident from Figure 1 and Figure 2 that there is an obvious relationship between the predictors and the independent variable for the high levels of parental control, while the negative relationship for the low levels of parental control is far less clear. Some of the respondents with low parental control procrastinate a lot and some seem not to procrastinate much which leads us to think that the relationship between parental control and procrastination in the low levels of parental control may be moderated by another variable. Therefore, although significant, the quadratic model does not fit the data as well in the lower levels of parental control as it does in the higher levels which implies heteroscedasticity. This issue is taken into account in the interpretation of these results.



**Figure 1 Quadratic relationship between parental control (X) and procrastination (Y) determined by student.**



**Figure 2 Quadratic relationship between parental control (X) and procrastination (Y) determined by parent of student**

## Discussion

The aim of this study was to examine whether parental control of child’s school duties in the first five grades of primary school relates to their academic procrastination on college. We found support

for out hypotheses that low and high levels of parental control are associated with academic procrastination on college. Based on our research, we conclude that the extent to which parents controlled their child's studies is a significant predictor of child's future academic procrastination. High levels of parental control are associated with high levels of procrastination. This finding is consistent with previous research which showed a close relationship of highly controlling authoritarian parenting style and procrastination (Mih, 2013) and a low capability for self-regulation (Vahedi et al., 2009; Huang and Prochner, 2004; Piotrowski et al., 2012).

Based on our findings, there is also a negative relationship between parental control and procrastination in low levels of parental control. However, this relationship is not as strong as in the case of high levels of control. This finding is consistent with research by Huang a Prochner (2004) which showed a weak negative relationship between self-regulation and procrastination yet differs from the results by Piotrowski et al. (2012). Piotrowski's research implies that permissive parenting style is a stronger negative predictor of self-regulation than the remaining two parenting styles. In future, research should focus on a deeper understanding of permissive parenting style which corresponds to our concept of low parental control. The lack of empirical evidence in this area hinders our understanding of the influence of parenting style on child's self-regulation and efficacy. Moreover, our results suggest that students who were exposed to the medium level of parental control procrastinate less than their peers that were exposed to lower or higher levels of parental control. Since the medium level of parental control is linked to authoritative parenting style, this finding is consistent with results by Mih (2013), Vahedi et al. (2009), Piotrowski et al. (2012) and Huang and Prochner (2004).

Parents' approach to the fulfilment of child's school duties during the first years of primary school influence child's later approach towards fulfilment of academic duties. According to our research, the correct approach to raising non-procrastinating child is a medium level of parental control. Parents should be neither indifferent to child's fulfilment of school duties, nor take over all of child's responsibility for school duties.

While interpreting our results, it is necessary to keep in mind specifics of our sample. Since we excluded students with an extremely low or high academic workload, we can generalize our results only to a population of students with a more or less moderate academic workload. We expect that in case of students with a low workload, the found relationship would have been weaker, because these students would not have had tasks to postpone and the effect of parental control could not have fully emerged. Also in case of students with a high academic workload, the relationship would have been probably weaker due to a homogenous level of procrastination. A very high number of tasks could have resulted in the need of postponing tasks even by students who would not have otherwise procrastinated and thus the effect of parental control would not have proved so strong. The reason for this is that in order to emerge, the relationship between parental control and procrastination requires student to have an opportunity to procrastinate. Even though we excluded students with an extremely high and low workload, the amount of opportunities for procrastination could have differed substantially in our sample. Our respondents were students of a wide variety of academic fields that may differ in the amount of external control from teachers. For example, students who do not have to present the progress of their work regularly during the semester are more likely to get more tasks accumulated at the end of the semester which might result in more intense procrastination. Conversely, students who have frequent deadlines and exams have potentially more opportunities to procrastinate leading to more frequent procrastination.

It is also necessary to take the use of self-assessment questionnaires into account. In this research, self-assessment questionnaires proved to be very efficient because the only alternative way of exploring the relationship between procrastination on college and parental control in primary school is very demanding 15 years long longitudinal study. On the other hand, these questionnaires are a subject to various possible errors and biases in self-assessment. In the current study, this is apparent

from an imperfect correlation between parental control assessed by students and parents. We controlled the effect of these errors by collecting data from both students and their parents. A strong correlation between both assessments and similar results of statistical analyses increase the validity of our findings.

Our findings may prove useful in educational and pedagogical contexts. Appropriate parenting may help in preventing child's future procrastination and protect the child from its harmful consequences such as increased stress levels inducing frequent health complications (Tice and Baumeister, 1997). This research could also serve as a warning for parents who in the attempt to make their child successful overly focus on their school performance and duties since the first grades of primary school. This effort may paradoxically prove harmful to their children. Our recommendation for future research is to further explore the relationship of procrastination and parental control in low levels of parental control. Our result shows that low levels of parental control predict high levels of future procrastination in the majority of our sample, however, for some respondents, our results showed that low levels of parental control are associated with very low levels of future procrastination. It seems that under certain circumstances, a benevolent and permissive approach may be effective in preventing future procrastination. The focus of future studies could be set on discovering potential moderators which cause discrepancies in the effect of low parental control on procrastination.

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