Restrictive and Supportive Parenting: Effects on Children's School Affect and Emotional Responses

Karen D. Annear
Gregory C. R. Yates
University of South Australia

Abstract

In this project upper primary school students were surveyed about their general liking for school, and reasons for going to school. Their parents were asked to respond on a questionnaire indicating their restrictiveness and also support for their child's autonomy. Data were collected from 92 middle SES two-parent families and analysed using SmartPLS path modelling. It was found that children of mothers high on autonomy support enjoyed school more, and endorsed cognitive learning reasons for attending. Restrictive parenting (in either mothers or fathers) did not relate significantly to school affect, but was associated with elevated levels of negative emotional symptoms, notably loneliness and unhappiness.

Introduction

In what ways do parents influence their children's disposition toward school? In a major review of the research literature into parental involvement factors, Pomerantz, Moorman, and Litwack (2007) noted that parental impact on the child's school adjustment has been linked with eight aspects of parental conduct: (a) level of monitoring and control, (b) support for child's growth and autonomy, (c) focus on the process of learning, (d) focus on child's inherent ability, (e) level of general positive affect, (f) level of negative affect, (g) positive expectations of child's potential, and (h) negative expectations of child's potential. Of these, dimensions (b), (c), (e) and (g) clearly exert positive effects, but the remaining dimensions often appear more closely linked into adverse outcomes. In the present project we sought to further investigate linkages between parental factors and students' liking for school.

The role of autonomy support

A sizable body of recent research has examined the impact of autonomy support as a parenting dimension. Such support is defined as allowing children to explore their environments, make choices, express ideas, take initiative, assume responsibilities, and actively solve their own problems. The appropriate response of the parent is seen as one of encouraging and supporting the natural processes of socialization, and to assume a role of "authoritative management". In contrast, controlling parents are seen as authoritarian in their management strategies, i.e., attempting to channel their children toward adult-set agendas through the application of commands, pressure, sanctions, and emotional tactics such as love withdrawal. The advantages of autonomy support over psychological controlling tactics have been uncovered by many studies, as reviewed in Pomerantz et al. (2007). For example, Steinberg, Lamborn, Dornbusch and Darling (1992) showed that supportive practices in parents predicted school achievement in adolescents, within the context of authoritative parenting styles. School achievement was associated with students perceiving their parents as authoritative. On the other hand, perceiving parents as authoritarian was associated with lower achievement.

In an American study based on children from grades 3 to 6, Grolnick and Ryan (1989) reported that student grades correlated with their research interviewers' ratings of parental autonomy support at a level of 0.46 for mothers, and 0.33 for fathers. In a large scale study comparing Chinese to American children around 12 years of age, Wang, Pomerantz, and Chen (2007) found that autonomy support correlated with grades more strongly in the American sample than the Chinese sample (0.28 vs. 0.14). In both countries the link between parental autonomy support and their children's academic learning strategies was a highly significant one (correlations of 0.42 and 0.40). In the Wang et al. study, the measure of parental autonomy support stemmed from child ratings. It is apparent that ratings from children and parents as to parental control styles generally are found to correlate around 0.3 or lower (Bogels, & van Melick, 2004; Grolnick, Ryan & Deci, 1991; Schwarz, Barton-Henry, & Pruzinsky, 1985; Simons, Whitbeck, Conger, & Wu, 1991; Soenens, Duriez, Vansteenkiste & Goossens, 2007).

In their review paper, Pomerantz et al. (2007) concluded that "one reason that parent's autonomy support versus control may benefit children's achievement is because it provides motivational resources that foster positive engagement in school" (p. 383). In a Taiwanese study, d'Ailly (2003) reported links between students' intrinsic school motivation at the upper primary level, and their ratings of autonomy support concerning their mothers (but not fathers). Bronstein, Ginsburg and Herrera (2005) found that general support for child autonomy at the level of the family, predicted student school grades over a two-year period, as well as the students' self-

perceived academic competency over that period. Bronstein et al. concluded that "parents' everyday engagement with their children in ways that encourage independent thinking, problem solving skills, and self-efficacy may serve to promote achievement and foster motivation for academic work" (p. 574). Grolnick et al. (1991) found links between middle school students' feelings of competency and the level of autonomy support they felt they received from their parents.

Hence, there are strong reasons to assume that the manner in which students relate to the school experience can follow on from the type and quality of psychological tactics employed by their parents. The parent-child relationship may set up expectations as to underlying goals of the adult-child relationship. In essence, the available research indicates that: (a) children are able to report upon stylistic differences within parenting repertoires, and (b) researchers have been able to relate these reports to indices pertaining directly to significant educational outcomes.

The role of restrictive parenting

In their review, Pomerantz et al. (2007) drew attention to the literature associated with restrictive parenting. Inevitably, parents monitor and provide strongly directive information to their children, but the manner in which this goal is achieved can be either facilitative or detrimental to the child's need to establish autonomy and self-identity. A compelling distinction has been articulated within the work of Steinberg et al. (1992) and especially Barber (1996, 2002) who carefully discriminate behavioural control from psychological control. Behavioural control is consistent with social learning factors such as modelling, reinforcement, and direct information-giving tactics such as verbal induction. But psychological control is accounted for by the use of power and restrictiveness. Psychological control methods are geared to the child's compliance with parental decisions, where the child's input is minimal and possibly irrelevant to the agenda. Psychological control implies the expectation of obedience with minimal recognition of the needs of the developing young person.

As reviewed by Barber and Harmon (2002), an extensive research literature attests to negative effects within children and adolescents linked to parental indices of psychological control and restrictive parenting practices. Such outcomes include reduced self-esteem and depressive tendencies (Barber 1966; Garber, Robinson, & Valentiner, 1997), social withdrawal, (Mills & Rubin, 1998), hopelessness feelings (Shek, 2007), impaired moral decision making (Boyes & Allen, 1993), internalising symptoms (Barber, Olsen, & Shagle, 1994; Doyle & Markiewicz, 2005), maladaptive perfectionist tendencies (Soenens, Elliott, Goossens, Vansteenkiste, Luyten & Duriez, 2005), and empathic perspective-taking problems (Soenens, Duriez, Vansteenkiste, & Goossens, 2007).

Within infants and preschool children, restrictive parental control has been linked to negative emotionality (Paulussen-Hoogeboom, Stams, Hermanns, & Peetsma, 2007). Further, the available data suggest that the negative effects of restrictive parenting practices extend well beyond childhood. Luyckx, Soenens, Goossens, and Vansteenkiste (2007) reported that parental psychological control predicted a relative lack of development within dimensions of self-identity formation in early adulthood. In a notable longitudinal study, Kasser, Koestner, and Lekes (2002) compared the expressed values of adults when aged 31 to ratings made on their parents 26 years earlier. Adults displaying values reflecting social conformity had parents rated as high on the restrictive dimension. Similarly, lack of self-direction in adulthood was linked to restrictive parenting, with these relationships found to be independent of social class and gender.

Significantly, it has been found that whereas parental warmth appears to facilitate the intergenerational transmission of personality traits (in that adolescents can resemble their parents on personality test instruments) restrictive parenting can serve to inhibit this natural process (Zentner & Renaud, 2007). However, there is also published evidence that harsh parenting practices themselves can be transmitted to the next generation through natural social learning and modeling processes (Scaramella & Conger, 2003; Simons et al., 1991).

Relationship between parenting dimensions

The implicit assumption that autonomy support and restrictive parenting practices constitute opposing ends of a continuum has not been born out within recent studies. Although such styles are clearly divergent, knowing that parents are low on autonomy support does not imply they will use restrictive control methods. Similarly, the absence of psychological control in parenting practices does not imply that such parents are encouraging and fostering their children's autonomy. In an important study based on reports from 9,600 adolescents, Silk, Morris, Kanaya, and Steinberg (2002) found that the adolescents' ratings on their parents on the two dimensions correlated at -0.18. Structural equation modeling revealed the two factors were only weakly related, and were differentially related to outcome measures such as internalising symptoms. Desjardins, Zelenski, and Coplan (2008) reported that, within a sample of mothers at a Canadian community centre, parental warmth and restrictiveness on self-report measures correlated at a non-significant level. Interestingly, in this study, neither parental index correlated significantly with measures of subjective well being or happiness. However, in an earlier study, Coplan, Hastings, Lagace-Seguin, and Moulton (2002) had found that authoritarian mothers exhibited high levels of negative emotions in dealings with children's misbehaviour.

The present study

In the present study we sought to further investigate the notion, as advanced by Pomerantz et al. (2007) that parental factors may impact directly upon student motivational levels within the educational context. We postulated that students whose parents employ autonomy support methods could exhibit a specific advantage over other students: That of appreciating why they attend school. Such students may report they enjoy attending school. These speculations are based on the idea that an underlying goal of adult-child interaction will involve aspects such as socialization, skill development, active decision making, acquiring knowledge, and developing into a successful, well-adjusted human being. Such an agenda is aligned with, and may stem directly from, parental practices consistent with autonomy support. In short, children may "pick up the message" that school involves important activities which their parents place value upon, and so encourage and reward their child's self-development and wider achievements beyond the home.

These ideas are consistent with the finding that supportive parenting predicts the emergence of successful identify formation (Luyckx et al., 2007). School offers one possible avenue serving goals such as the young person's development, identity, and autonomy. Such goals are likely to be articulated when parents employ supportive practices. Furthermore, in a project based on young adult participants within China, Vansteenkiste, Zhou, Lens and Soenens (2005) reported positive correlations between the adults' perceptions of parental support they had received and their use of effective study strategies such as time management and focused concentration. In a study based on a similar population, Chan and Chan (2007) found that young adults who rated their parents as authoritarian tended to endorse competitive performance goals (in contrast to intrinsic learning goals) within their tertiary studies. In a study based on Korean and American adolescents, Mantzicopoulos and Oh-Hwang (1998) found that those who reported their parents as authoritarian evidenced lower scores on orientation to work, i.e., a reduced pride and pleasure in successful task completion.

In the present study, we were able to collect data from students in the upper primary school years, and their parents, both mothers and fathers. We speculated that autonomy support in parents would link to students' general positive affect at school. Using items drawn from the Longitudinal Surveys of Australian Youth (Marks, 1998), we sought to measure school affect in several ways, specifically overall liking for school, and perceived reasons for attending. Also tapped were the student's emotional symptoms in terms of two aspects: (a) internalising aspects such as unhappiness and feeling lonely, and (b) externalising aspects such as being angry and using bad language. Given the patterns reported in earlier studies, we generally expected that negative emotional symptoms would relate to the parental control dimension, whereas the autonomy support dimension would relate more closely to the positive school-related motivational indices.

Method

Participants

The participants in this study were 276 individuals, consisting of 92 family units of student, mother, and father. The students (51 males and 41 females) were drawn from Year 6 and 7 classes in 4 neighbouring schools in metropolitan Adelaide. The age range was from 10.1 to 12.10 years, with a median of 11.10 years. The schools served well-established areas generally described as middle class, with 20% of the students being listed as eligible for assistance under the governmental aid program. Preliminary means testing revealed no significant differences in data collected from the 4 sites.

Procedures

Parents of students in Years 6 and 7 across the 4 schools were targeted through material sent home with each child. In all, 327 family units received the information materials, consent forms, and two copies of the Parent Questionnaire. This resulted in 92 completed parent sets being returned in sealed envelopes with the student to the school. An additional 30 questionnaires were received, from either a mother or father, but not used as the study was restricted to traditional two-parent family units. The project was able to be carried out through the active cooperation of the 14 teachers concerned. Since the teachers were aware of the parents who had given consent, they allowed KA to administer the child questionnaire to the appropriate students, on a class by class basis. For each individual case, the teacher placed the completed student questionnaire into the same envelope as the parents' questionnaires and simultaneously removed the consent form from the envelope. This procedure served to match individual students with their parents whilst preserving anonymity. The project was carried out with approval of the Human Research Ethics Committee, University of South Australia (Application 42/07).

Measures and instrument development

Student questionnaire This consisted of 32 items in two sections: (a) items concerned with attitudes to school, and (b) items concerned with emotions. Students were asked to indicate their level of agreement with each of the statements along a 5-point Likert scale (*Strongly disagree, disagree, unsure, agree, strongly agree*). In the first section, half of the items were drawn from the Longitudinal Surveys of Australian Youth, specifically the 1998 report entitled "Attitudes to School" (Marks, 1998). In addition, we added in several new items with the intention of tapping three constructs: (a) general liking for school or positive school affect, (b) learning benefits of school, and (c) social/emotional benefits of school.

However, initial principal components analyses indicated that only two factors could be articulated meaningfully, which we labelled School Affect, and Cognitive Learning

Benefits. Oblimin rotation was used to further identify the items measuring these constructs, and the 2-factor resolution is shown in Table 1. Three items loaded upon both factors, and so were discarded, since construct clarity (as evidenced by average variance extraction indices within a PLS model) is the essential precondition for the planned partial least squares (PLS) analysis. An additional 6 items, originally intended to tap social and personal purposes for going to school, failed to align within a coherent structure, and could not be used within further analyses.

Item		Loading
	Factor 1: School affect (λ=4.38, ·=.86)	
1*	At school I do really interesting work	.69
3*	I feel happy at school	.73
4*	I like learning at school	.79
5	School is boring (reversed)	.73
6*	I enjoy being at school	.81
8	I do not like going to school (reversed)	.85
	Factor 2: Cognitive learning purpose (λ=1.77, ·=.72)	
11*	I am learning skills that will help me when I leave school	.79
12*	Things I learn will help me in adult life	.74
13*	Learning in school is necessary for future life	.69
21*	My future depends on what I learn at school	.61
22	School will help me to develop mentally	.64

Notes: Loadings stem from oblimin resolution, with factor correlation score of r=.31.
** Items based on the work of Marks (1998).*

Table 1: Two Factor Resolution of Student Questionnaire Responses

In addition, students' emotions were tapped using 5-point scales. Students were asked to indicate how often, during the past month, they experienced each of the following eight emotions: Felt lonely, confused, unhappy, depressed, or used bad language, got into fights, got angry, and yelled at others. We modelled these items on those used by Barber et al. (1994) and Doyle and Markiewicz (2005). Consistent with these studies, principal components analysis indicated 2 clear factors that we labeled Internalising and Externalising, defined by 3 items each. The resolution is shown in Table 2. Two items (confusion, and fighting) failed to load cleanly into either factor and so were not used in further analyses.

Item		Oblim
	Factor 1: Internalising symptoms (λ=3.08, ·=.80)	
25	…felt lonely	.84
27	…felt unhappy or sad	.86
28	…felt really depressed	.83
	Factor 2: Externalising symptoms (λ=1.13, ·=.74)	
29	…sworn and used bad language	.85
31	…been angry and destroyed things	.74
32	…been angry and yelled at others	.85

Notes: Loadings based on oblimin rotation, with factors correlating at r=0.41. Frequency of emotion during past month assessed using a 5-point scale: 1 (never) to 5 (all the time).

Table 2: Two Factor Resolution on Students' Self-Reported Emotional Symptoms

Parent questionnaire This questionnaire was developed by the present authors, but based around items selected from the Childrearing Practices Report (Rickel & Biasatti, 1982). However, instead of the more traditional Likert-type format, we employed a bi-polar presentation method, asking each parent to position themselves between two apparently contrasting statements or anchors on each item. A 7-point line-type scale was used, with numbers marking gradations. For example, Item 11 consisted of two anchors: (a) *I would call myself a restrictive parent* and (b) *I would not call myself a restrictive parent.* This approach was adopted in the explicit goal of making the questionnaire acceptable to parents given the procedure of sending the instrument into homes without prior contact.

The presumption was that the bipolar method, compared to other formats, appeared less confronting or invasive. We felt this assumption vindicated in that we obtained an acceptably high response level at 28%. In an earlier study within a similar location, Hutchinson and Yates (2008) obtained data from only 11% of fathers when approached in the similar manner using Likert scales. It can also be noted that Desjardins et al. (2008) also reported on an unacceptably low response rate (i.e. insufficient data) on the part of fathers when asked to respond to the Rickel and Biasatti measure on a "sent-home" basis.

Factor analyses were conducted on mothers' and fathers' datasets separately. In both instances, two clear operative factors emerged, based around the same item sets. The factors were labeled "Restrictiveness" and "Autonomy Support". The 2-factor oblimin resolutions are shown in Table 3, which depicts loadings in the case of mothers' and fathers' data independently. Three further items were embedded in the original questionnaire: (a) whether or not it was acceptable to use guilt on children, (b)

whether or not children need guidance, and (c) whether or not parents know what "is best" for their children. These three items failed to load meaningfully into either of the two isolated factors and so were discarded. The two factors were then scored in "naturally opposing" directions, i.e., high scores on Restrictiveness indicate restrictive parenting, and high scores on Autonomy Support indicate supportive parenting.

		Mother Data	Father Data
	Factor 1: Parental Restrictiveness (Mother: λ=3.02, ·=.64; Father: λ=1.25, ·=.64)		
1	Children should obey their parents' and teachers' decisions vs. Children should be allowed to question adults' decisions	.74	.73
3	Left to themselves children are going to misbehave vs. Left to themselves, children can be trusted to behave responsibly	.78	.78
9	Children must never be angry with their parents vs. Children should freely express their anger about parents	.72	.60
11	I would call myself a "restrictive" parent vs.I would not call myself a "restrictive" parent	0.46	.59
	Factor 2: Parental Autonomy Support (Mother: λ=1.33, ·=.73; Father: λ=3.27, ·=.78)		
5	Children should be told what is right and wrong vs. Children can be expected to know what is right and wrong for themselves	.66	.68
6	Children should accept their parents' values vs. Children ought to establish their own values	.84	.85
7	Children should accept their parents' standards vs. Every child has to set their own standards	.91	.87
8	Children should not keep secrets from their parents vs. As unique individuals, children can keep secrets from their parents	.49	.66

Notes: The participants were 92 mothers and 92 fathers.
Initial loadings based upon oblimin structure matrices.
The correlation between the 2 factors was r=.33 in case of mothers, and . r=.33 in case of fathers.

Table 3: Two Factor Resolution on the Parent Questionnaire (Bipolar Items)

Descriptive information concerning the constructed factors is shown in Table 4. Means testing procedures found significant effects attributable to student gender only in the case of Internalising symptoms, with girls reporting higher levels than boys, *X*s of 6.4 and 5.5, $F(1,90)=4.7$, $p=.03$. It can also be noted that mothers and fathers expressed similar (i.e., not significantly different) levels in regards to both autonomy support and restrictiveness. Further, in the Likert response items, the score of 3 represents the neutral or midpoint level of *unsure* along the 5-point scales. Hence, the mean of 18.2 out of 30, as shown for School affect in Table 4 approximates the midpoint position of 18.0 remarkably closely.

Results

Intercorrelations between the student measures and their parents' questionnaire scores are shown in Table 5. Of note is that mothers and fathers appeared relatively more similar in restrictiveness (r =.47) than in autonomy support (r =.22), even though the actual means across mothers and fathers revealed no significant effects (as shown in Table 4).

Factor construct	Possible Range	Mean	SD
Maternal restrictiveness	4 to 28	14.9	3.9
Maternal autonomy support	4 to 28	12.1	4.0
Paternal restrictiveness	4 to 28	15.9	4.1
Paternal autonomy support	4 to 28	12.0	4.4
School affect (C)	6 to 30	18.2	3.7
Cognitive learning purpose (C)	5 to 25	20.6	2.9
Internalising symptoms (C)	3 to 15	5.9	2.1
Externalising symptoms (C)	3 to 15	5.6	2.2

Note: N = 92. (C) indicates child response.

Table 4: Means and deviations for all constructs

Construct	2	3	4	5	6	7	8
1. School affect (C)	.40**	-.13	-.34**	.23*	-.06	.02	-.04
2. Cognitive purpose (C)	-	-.05	-.13	.20	.00	.05	.00
3. Internal symptoms (C)		-	.46**	.00	.26*	-.21*	.24*
4. External symptoms (C)			-	-.10	.16	-.07	.05
5. Maternal autonomy support				-	-.42**	.22*	.20
6. Maternal restrictiveness					-	.16	.47**
7. Paternal autonomy support						-	-.46**
8. Paternal restrictiveness							-

*Note: *p<.05 **p<.01 (C) indicates child response.*

Table 5: Pearson Intercorrelations Between Constructs

Relationships between parental dispositions and student indices were investigated using the partial least squares approach (PLS) to path modeling. For this study, PLS was chosen partly as this approach does not hinge upon large samples . The software used was "SmartPLS", version 2M3 (Ringle, Wende, & Will, 2005). In practice, a PLS model develops in two stages: (a) the measurement model is tested by performing reliability

and discriminative validity analyses on each of the measures to ensure that reliable measures of the constructs are inherent; and (b) the inner structural model is then tested by estimating the paths between the constructs, determining their significance as well as the predictive ability of the model. The PLS procedure calculates an estimate for each construct or latent variable, derived from corresponding observed variables, thus partitioning the hypothesised inner model into its component constructs. To evaluate the model against observed data, an iterative procedure fits observed measures to corresponding latent variables, then estimates relationships amongst the latent variables. A least squares fit between observed and modeled parameters is computed. A best-fit solution is regarded when the least squares function stabilises between iterations.

Since the approach is variance-based (as distinct from covariance-based), the PLS procedure has been described as soft-modeling and is claimed to be most useful in investigating descriptive and predictive relationships rather than confirmatory analysis (Sellin & Keeves, 1997). A readable review of the procedure has been published by Haenlein and Kaplan (2004). To test for the significance of path coefficients, SmartPLS employs bootstrapping sampling procedures allowing paths to be expressed in terms of *t*-test values. In our analyses, we used samples set at 500. Further, construct integrity is indicated through average variance extraction indices (AVE). In all reported analyses below, these figures were within the accepted AVE range of .49 or higher.

Investigating school affect factors

It was apparent that in the case of the fathers' data, significant relationships between parental restrictiveness and their children's school related affect scores were not found. Similarly, restrictiveness in mothers appeared not to link significantly to child school-related affect. However, a significant impact was noted in the case of the maternal autonomy support factor. Autonomy support from mothers was found to predict students' general school affect, path of .27, t=4.20, p<.01, R-square of 0.08. Similarly, maternal autonomy support predicted their children's expressed purpose for schooling, in terms of cognitive learning, path of .22, t=2.91, p<.01, R-square of .05. These relationships are shown in Figure 1, which shows the final model after non-significant relationships have been trimmed. The diagram depicts both the inner and the outer measurement models, where the outer values represent factor loadings based on the PLS variance model (which obviously differ slightly from the exploratory Oblimin loadings reported earlier).

As an innovative feature, the SmartPLS program affords an option to test for possible moderation effects. Applying this option indicated that the two significant relationships, as shown in Figure 1, were not moderated by the student gender factor. That is, the statistical impact of the depicted relationships was similar for both boys and girls within the current dataset.

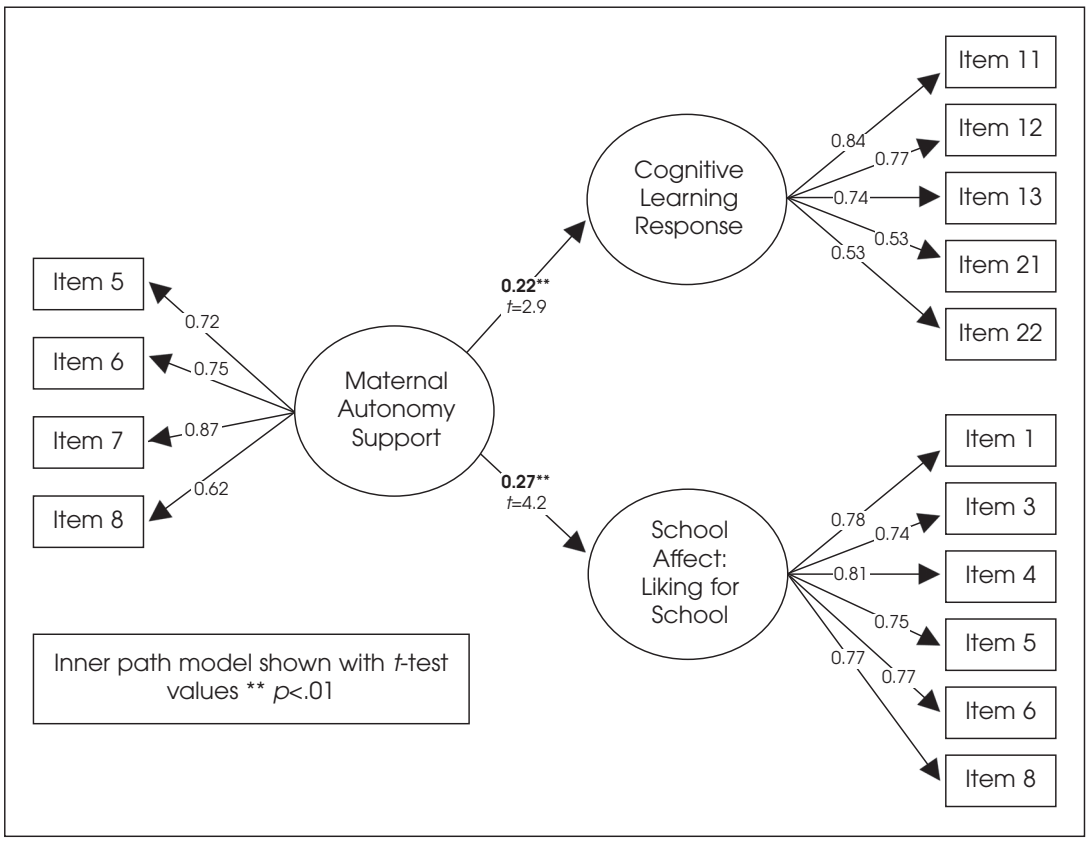

Figure 1: Maternal effects on children's liking for school and cognitive learning purpose

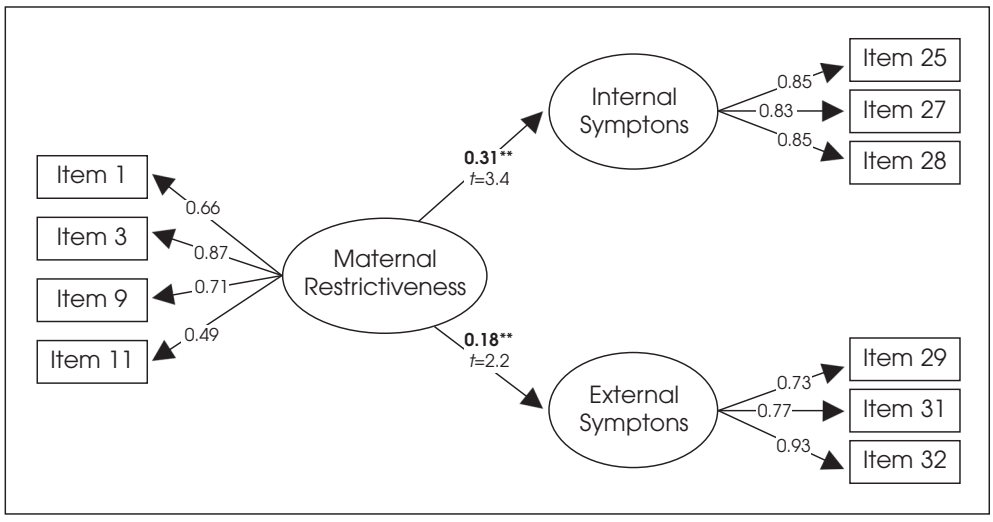

Figure 2: Maternal effects on child negative emotional symptoms

Investigating emotional symptoms

Significant effects were obtained between restrictive parenting and their children's expression of emotional symptoms. In the case of the mothers' dataset, this is shown in Figure 2. The link between restrictiveness in mothers and children's internalising appeared as highly significant, path of 0.31, t=3.41, p<.01, R-square of 0.1. The path from maternal restrictiveness to child externalising symptoms was of lesser magnitude, but was also significant, path of 0.18, t=2.21, p<.05, R-square of .08. Moderation analyses indicated that these relationships were not moderated by student gender.

In the case of the fathers' dataset, an essentially similar pattern appeared (see Figure 3). It was found that fathers' restrictiveness significantly predicted student emotional symptoms, as indexed by internalising symptoms, path of .28, t of 2.6, p<.05, R-square of .08. Moderation analysis indicated that this effect was not moderated by student gender.

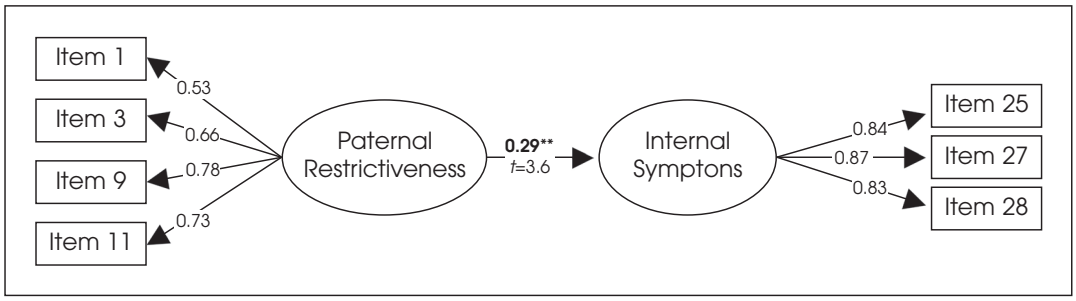

Figure 3: Paternal effects on child negative emotional symptoms

Since it was evident that children's internalising symptoms linked to restrictiveness on the part of either mothers or fathers, hierarchical regression was used to investigate their cumulative impact. In the event, additive effects were not found. That is, significant effects were evident when **either** mothers or fathers were entered into the regression model initially (i.e. consistent with PLS analyses, Figures 2 and 3). However, adding in the other parent into the models at step 2 failed to show significant increments (i.e., from 10% to 12%) in variance explained. We also used regression to investigate if the additive effect of parental restrictiveness (both mothers and fathers combined) would be significant in predicting externalising symptoms, but this analysis also was not significant.

It can be noted that internalising symptoms were predicted by paternal restrictiveness (positively), and paternal autonomy support (negatively). By way of supplementary analysis, we investigated if the impact of restrictiveness was moderated by autonomy support (i.e., would high levels of support counteract the impact of restrictiveness?). We tested for this using median splits on the paternal support factor to generate two groups: children with supportive fathers, and children with less supportive fathers. These two

groups did not diverge on any other measure, and we concluded that paternal support in itself did not moderate the impact of other factors in predicting unhappiness.

In further supplementary analyses, we examined for effects possibly associated with discrepancy between mothers and fathers in their expressed parenting styles. We did this by calculating discrepancy scores, i.e. differences between mothers and fathers in their expressed levels of restrictiveness and support. Within the current dataset, we found no significant effects on the student indices that could be meaningfully linked to these statistically defined differences in expressed parenting styles.

Discussion

As reviewed in the introduction, there is a growing body of evidence linking specific parenting practices to specific indices directly relevant to school-related affect and motivation. The present findings add to this evidence. The results can be summarised thus:

1. Students' liking for school was associated with level of autonomy support expressed by their mothers. However, paternal levels of such support appeared not to have a measured impact on school-related affect.
2. Students' awareness of the learning or cognitive reasons for going to school was clearly linked to the maternal autonomy support factor.
3. Parental restrictiveness, on part of mothers or fathers, did not appear to affect their children's enjoyment of school, or their awareness of reasons for going to school.
4. Parental restrictiveness, on part of mothers and fathers, had a marked impact upon their children's expression of negative emotions, these effects being strongest in the case of internalising symptoms such as loneliness, sadness and depression.
5. Although paternal autonomy support did appear to link in with reduced levels of negative emotional symptoms, this effect was not strong enough to counteract the impact of restrictive parenting on negative internalising symptoms.

The specific finding that primary school students who reported they liked school had mothers who expressed high levels of maternal autonomy support is consistent with prior research findings, as reviewed in depth within the introduction to this paper (e.g., Barber 1996; Pomerantz et al., 2007). It is suggested that parental support helps

the child to appreciate reasons for attending school, but especially in terms of wider school-related goals such as acquiring knowledge and preparing for the future. An inspection of the questionnaire as shown in Table 1 of this paper reveals that the items labeled "cognitive learning purpose" might equally be labeled "orientation to the future". That is, cognitive reasons for attending school must implicate the notion that learning is occurring, within the present, which will be of considerable benefit to the individual within the future. Hence, schooling represents a projection of the family context in which the available adults are inherently trustworthy and working toward the personal development of the younger generation. Our data suggest that such an idealistic view is facilitated by early contact with parents, or at least mothers, who endorse and use supportive, as distinct from restrictive, parenting practices.

From path analyses, we obtained evidence for the important role played by mothers, as both (a) facilitating positive school-related affect through autonomy support, and (b) also being implicated in negative emotional symptoms when they subscribe to restrictive parental practice. Overall, maternal effects were stronger than paternal effects, a finding that appears consistent with earlier studies based on child reports (d'Ailly, 2003; Grolnick et al., 1991). However, restrictive fathers were linked into negative child internalising symptoms at almost the same level as mothers. In statistical terms, it mattered little whether parental restrictiveness stemmed from either mother or father. Further, the statistical impact of mothers and fathers restrictiveness was not additive in our data. That is, it was sufficient for either parent to be restrictive, and having both did not add to the level of prediction. In contrast, it can be noted that in a well-controlled study, Simons and Conger (2007) recently furnished evidence indicating adaptive effects for supportive parenting were greatest when both parents were rated as authoritative by their research team. Further, Fletcher, Steinberg, and Sellers (1999) have reported on adverse child outcomes associated with perceived inconsistencies between mothers and fathers in control strategies.

One important aspect of the present study lies in the use of data obtained from both sets of parents. Within this research area, parental psychological control is indexed typically through child reports. That is, children are asked questions such as "My parents tell me their ideas are correct and I should not question them" (Silk et al., 2002, p. 122). However, in the present study we inquired of parents whether "Children should be allowed to question adults' decisions" (see Table 3). It is important to establish a level of consistency across studies, especially when dependent variables invoke dysphoric elements. Unhappy young people may produce negative evaluations of their parents in a manner that could be difficult to cross-validate. In a survey with 18-year-old students, Schwarz et al. (1985) found that the students tended to describe their parents as less accepting and more psychologically controlling than their parents, both mothers and fathers independently, described themselves. Albrecht, Galambos,

and Jansson (2007) found that young adolescents with internalising and aggressive problems showed increases over a 2-year period in their perception of both parents as psychologically controlling.

However, such observations certainly are not meant to undermine the use of child reports in this area. In reviewing measurement considerations, Morris et al. (2002) noted that, "Because psychological control is in the eye of the controlled, it is especially crucial that any assessment of this construct take into account the child's subjective experience" (p. 131). Hence, within this current paper we employ the term "restrictive parenting" in referring to the parents' expressed attitudes. We note the high level of consistency between what was found, and the published studies into perceived psychological control. As noted in the introduction, correlations between child and parent sources as to parental styles typically are of low magnitude, and hence it is important to recognise the nature and source of data published in this research area. For example, in the Grolnick et al. (1991) study, it was reported that mother-derived ratings on autonomy support correlated with their children's rating on the same dimension at 0.14, i.e. statistically significant, but of low magnitude, whereas the correlation between child and fathers' ratings on this dimension failed to correlate significantly. In the study of Bogels and van Melick (2004) the scores of children and their mothers on ratings of maternal acceptance was 0.15, although this increased to 0.33 in the case of maternal psychological control. It can also be noted that the Mills and Rubin (1998) study, cited earlier, used observers to rate videotapes of mother-child interactions in defining psychological control strategies.

Methodological limitations

A methodological issue is that we were successful in obtaining a relatively high level of questionnaire return from parents, at around 28%. In an earlier project with a similar target group, we had obtained responses from only 11% of fathers. Other writers have also commented on problems in obtaining paternal cooperation (e.g. Desjardins et al., 2008). We tend to attribute part of this success to the use of the bipolar method, rather than traditional Likert items. The current instrument we see as a derivative of the well-established Rickel and Biasatti (1982) questionnaire. However, based upon current experience, it would be desirable to increase the number of items, and specifically attempt to reword items to draw out the divergence between autonomy support and restrictive practices. Through applying psychometric principles we duly 'lost' several promising items from the original set of bipolar anchors. Hence, it would be highly desirable to add to the item pool in any future use of this instrument. In particular, specific items need to be included to tap neglectful parenting. There is a possible danger of interpretation with the current items, as shown in Table 1, in that neglectful parents may tend to endorse some items we interpret as autonomy support. But there is vast theoretical difference between these constructs. Autonomy support implies a

structure implicating active guidance, and monitoring, often through the use of information, reinforcement, and correctives. Neglectful parenting implies the absence of such elements, and it is well established that neglectful parenting is linked with adverse educational outcomes (e.g., Aunola, Stattin, & Nurmi, 2000).

Other limitations

The present study was conducted within schools serving predominantly white middle class suburbs within an Australian city. Hence, it is possible to speculate that the participants inhabited a relatively benign world generally characterised by caring adults. Within such contexts, it makes sound sense for parents to adopt an attitude of strong autonomy support and low restrictiveness. However, this may not be the case within other contexts. Within a less benign environment, parental restrictiveness may equate with the need for strong guidance, direct information, and a high level of monitoring. In such contexts active monitoring and restrictiveness can signify caring adults where obedience to adult directives is critical to healthy development (Dearing, 2004; Smetana & Daddis, 2002). Thus, we conclude by suggesting that our data pertain to negative impacts attributable to parental restrictiveness within particular contexts. But the boundary conditions of this phenomenon remain to be defined.

References

Albrecht, A. K., Galambos, N. L., & Jansson, S. (2007). Adolescents' internalizing and aggressive behaviors and perceptions of parents' psychological control: A panel study examining direction of effects. *Journal of Youth and Adolescence*, *36*, 673-684.

Aunola, K., Stattin, H., & Nurmi, J. E. (2000). Parenting styles and adolescents' achievement strategies. *Journal of Adolescence*, *23*, 205-222.

Barber, B. K. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development*, *67*, 3296-3319.

Barber, B. K. (2002). *Intrusive parenting: How psychological control affects children and adolescents*. Washington D.C.: American Psychological Association.

Barber, B. K., & Harmon, E. (2002). Violating the self: Parental psychological control of children and adolescents. In B. Barber (Ed.), *Intrusive parenting: How psychological control affects children and adolescents* (pp. 15-53). Washington DC: American Psychological Association.

Barber, B. K., Olsen, J. E., & Shagle, S. C. (1994). Associations between parental psychological and behavioral control and youth internalized and externalized behaviors. *Child Development*, *65*, 1120-1136.

Bogels, S. M., & van Melick, M. (2004). The relation between child-report, self-report, and partner report of perceived parental rearing behaviors and anxiety in children and adults. *Personality and Individual Differences*, *37*, 1583-1596.

Boyes, M. C., & Allen, S. G. (1993). Styles of parent-child interaction and moral reasoning in adolescence. *Merrill-Palmer Quarterly*, *39*, 551-570.

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 styles. *Educational Psychology*, *27*, 157-172.

Coplan, R. J., Hastings, P. D., Lagace-Seguin, D. G., & Moulton, C. E. (2002). Authoritative and authoritarian mothers' parenting goals, attributions, and emotions across different childrearing contexts. *Parenting Science and Practice*, *2*, 175-235.

D'Ailly, H. (2003). Children's autonomy and perceived control in learning: A model of motivation and achievement in Taiwan. *Journal of Educational Psychology*, *95*, 84-96.

Dearing, E. (2004). The developmental implications of restrictive and supportive parenting across neighborhoods and ethnicities: Exceptions are the rule. *Journal of Applied Developmental Psychology*, *25*, 555-575.

Desjardins, J., Zelenski, J. M., & Coplan, R. J. (2008). An investigation of maternal personality, parenting styles, and subjective well-being. *Personality and Individual Differences*, *44*, 587-597.

Doyle, A. B., & Markiewicz, D. (2005). Parenting, marital conflict and adjustment from early- to mid-adolescence: Mediated by adolescent attachment style? *Journal of Youth and Adolescence*, *34*, 97-110.

Fletcher, A. C., Steinberg, L., & Sellers, E. B. (1999). Adolescents' well-being as a function of perceived interparental inconsistency. *Journal of Marriage and the Family*, *61*, 599-610.

Garber, J., Robinson, N. S., & Valentiner, D. (1997). The relation between parenting and adolescent depression: Self-worth as a mediator. *Journal of Adolescent Research*, *12*, 12-33.

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

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.

Haenlein, M., & Kaplan, A. M. (2004). A beginner's guide to partial least squares analysis. *Understanding Statistics*, *3*(4), 283-297.

Hutchinson, A. J., & Yates, G. C. R. (2008). Maternal goal factors in adaptive and maladaptive childhood perfectionism. *Educational Psychology*, *28*, 795-808.

Kasser, T., Koestner, R., & Lekes, N. (2002). Early family experiences and adult values: A 26-year prospective longitudinal study. *Personality and Social Psychology Bulletin*, *28*, 826-835.

Luyckx, K., Soenens, B., Goossens, L., & Vansteenkiste, M. (2007). Parenting, identity formation, and college adjustment: A meditational model with longitudinal data. *Identity*, *7*, 309-330.

Mantzicopoulos, P. Y., & Oh-Hwang, Y. (1998). The relationship of psychosocial maturity to parenting quality and intellectual ability for American and Korean adolescents. *Contemporary Educational Psychology*, *23*, 195-206.

Marks, G. N. (1998). *Attitudes to school life: Their influence and their effects on achievement and leaving school: Longitudinal surveys of Australian youth, Report No. 5*. Melbourne: Australian Council for Educational Research.

Mills, R. S. L., & Rubin, K. H. (1998). Are behavioural and psychological control both differentially associated with childhood aggression and social withdrawal? *Canadian Journal of Behavioural Science*, *30*, 132-136.

Morris, A. S., Steinberg, L., Sessa, F. M., Avenevoli, S., Silk., J. S., & Essex, M. J. (2002). Measuring children's perceptions of psychological control: Developmental and conceptual considerations. In B. K. Barber (Ed.), *Intrusive parenting: How psychological control affects children and adolescents* (pp. 125-159). Washington D.C.: American Psychological Association.

Paulussen-Hoogeboom, M. C., Stams, G. J. J. M., Hermanns, J. M. A., & Peetsma, T. T. D. (2007). Child negative emotionality and parenting from infancy to preschool: A meta-analytic review. *Developmental Psychology*, *43*, 438-435.

Pomerantz, E. M., Moorman, E. A., & Litwack, S. D. (2007). The how, whom, and why of parents' involvement in children's academic lives: More is not always better. *Review of Educational Research*, *77*, 373-410.

Rickel, A. U., & Biasatti, L. L. (1982). Modification of the Block child rearing practices report. *Journal of Clinical Psychology*, *38*, 129-134.

Ringle, C. M., Wende, S., & Will, A. (2005). *SmartPLS (2.0)*. Hamburg: University of Hamburg.

Scaramella, L. V., & Conger, R. D. (2003). Intergenerational continuity of hostile parenting and its consequences: The moderating influence of children's negative emotional reactivity. *Social Development*, *12*, 420-I439.

Schwarz, J. C., Barton-Henry, M. L., & Pruzinsky, T. (1985). Assessing child-rearing behaviours: A comparison of ratings made by mother, father, child, and sibling on the CRPBI. *Child Development*, *56*, 462-479.

Sellin, N., & Keeves, J. P. (1997). Path analysis with latent variables. In J. P. Keeves (Ed.), *Educational research, methodology, and measurement: An international handbook* (pp. 633-640). Oxford: Pergamon.

Shek, D. T. L. (2007). A longitudinal study of perceived parental psychological control and psychological well-being in Chinese adolescents in Hong Kong. *Journal of Clinical Psychology*, *63*(1), 1-22.

Silk, J. S., Morris, A. S., Kanaya, T., & Steinberg, L. (2003). Psychological control and autonomy granting: Opposite ends of a continuum or distinct constructs? *Journal of Research on Adolescence*, *13*, 113-128.

Simons, R. L., & Conger, R. D. (2007) Linking mother-father differences to a typology of family parenting styles and adolescent outcomes. *Journal of Family Issues*, *28*, 212-241.

Simons, R. L., Whitbeck, L. B., Conger, R. D., & Wu, C. (1991). Intergenerational transmission of harsh parenting. *Developmental Psychology*, *27*, 159-171.

Smetana, J. G., & Daddis, C. (2002). Domain-specific antecedents of parental psychological control and monitoring: The role of parenting beliefs and practices. *Child Development*, *73*, 563-580.

Soenens, B., Duriez, B., Vansteenkiste, M., & Goossens, L. (2007). The intergenerational transmission of empathy-related responding in adolescence: The role of maternal support. *Personality and Social Psychology Bulletin*, *33*, 299-311.

Soenens, B., Elliott, A. J., Goossens, L., Vansteenkiste, M., Luyten, P., & Duriez, B. (2005). The intergenerational transmission of perfectionism: Parents' psychological control as an intervening variable. *Journal of Family Psychology*, *19*, 358-366.

Steinberg, L., Lamborn, S. D., Dornbusch, S. M., & Darling, N. (1992). Impact of parental practices on adolescent achievement: Authoritative parenting, school involvement, and encouragement to succeed. *Child Development*, *63*, 1266-1281.

Vansteenkiste, M., Zhou, M., Lens, W., & Soenens, B. (2005). Experiences of autonomy and control among Chinese learners: Vitalizing or immobilizing? *Journal of Educational Psychology*, *97*, 468-483.

Wang, Q., Pomerantz, E. M., & Chen, H. (2007). The role of parent's control in early adolescents' psychological functioning: A longitudinal investigation in the United States and China. *Child Development*, *78*, 1592-1610.

Zentner, M., & Renaud, O. (2007). Origins of adolescents' ideal self: An intergenerational perspective. *Journal of Personality and Social Psychology*, *92*(3), 557-574.