Journal of Moral Education
Vol. 37, No. 2, June 2008, pp. 205–223

Parenting dimensions and adolescents' internalisation of moral values

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This study examined relations between parenting dimensions (involvement, autonomy support and structure) and adolescents' moral values internalisation. A sample of 101 adolescents (71% female; 76% white; *M* age=16.10, *SD*=1.17) reported on the parenting behaviour of one of their parents and on their own moral values. Four forms of values regulation were assessed (external, introjected, identified and integrated), as well as overall internalisation. Structure was positively linked to external and introjected regulation, involvement was positively associated with identified and integrated regulation and structure was negatively linked to overall internalisation. Additionally, positive interactions were found for autonomy support and involvement predicting identified and integrated regulation. Implications for parenting and moral education are discussed.

Introduction

Of critical importance to the proper functioning of society is children's development of moral values and their ability to independently regulate their thoughts, emotions and behaviour in line with these values (Steinberg, 1990). The degree to which adolescents see moral values as important to them has been linked to their tendencies toward moral action (Bond & Chi, 1997; Hardy & Carlo, 2005; Padilla-Walker & Carlo, 2007). Although many have argued that parents play a central role in the socialisation of such values (e.g. Grusec & Kuczynski, 1997; Hoffman, 2000) and much effort is going into advancing conceptual understanding of the appropriation of values (Grusec & Kuczynski, 1997; Grusec *et al.*, 2000), few studies have directly examined links between parenting and adolescents' internalisation of values (for exceptions, see Knafo & Schwartz, 2003; Padilla-Walker, 2007; Padilla-Walker & Carlo, 2007). Further, research is most importantly needed to elucidate the role of parenting in the socialisation of moral values specifically, as results of such research may prove useful for assisting parents in fostering the moral development, adaptive functioning and well-being of their children. Understanding

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ISSN 0305-7240 (print)/ISSN 1465-3877 (online)/08/020205-19

DOI: 10.1080/03057240802009512

of the mechanisms of moral values socialisation might also prove invaluable for other parties involved in the moral education of children, such as schools, churches and other youth-serving institutions. Thus, the present study examined the associations between parenting dimensions and the internalisation of moral values in adolescence.

Internalisation of values in the current study was conceptualised as the process by which adolescents progressively accept values and integrate them into their sense of self, such that their behaviour becomes internally controlled or self-regulated rather than primarily externally controlled (Grusec & Goodnow, 1994; Grolnick *et al.*, 1997; Grusec, 2002). Prior studies of values internalisation have often involved younger children and have conceptualised internalisation of values as compliance with parental demands in the absence of surveillance (e.g. Kochanska, 2002). However, in adolescence, values can become further internalised such that teenagers accept values as their own and eventually use them to define their sense of self (Deci & Ryan, 1991). Indeed, because adolescence is a period of identity exploration and development, adolescents may explore values that are different from those taught in the home, which makes this developmental age a particularly important one in which to study values development. Although most common definitions of internalisation involve a process of transferring values from an external source of control or motivation to an internal source, few theories of internalisation identify the sequences or levels of this process.

The model of internalisation of values that seems to most fully capture the essence of this process is that proposed by Deci and Ryan (1991). They outline the following four forms of values-regulation arranged on a continuum according to the degree of internalisation or self-regulation: *external* regulation, where behaviour is externally controlled through threat of external punishment or promise of external rewards; *introjected* regulation, where values are taken in but not fully accepted and, thus, behaviour is still motivated by control from external sources, such as the seeking of approval or avoidance of disapproval from parents; *identified* regulation, where individuals accept values as their own by identifying with the importance of the values and the behaviours they dictate; and *integrated* regulation, where values are assimilated into the self-system and are unified with the individual's other values, goals and motives. Hence, at the two lower levels of internalisation (external and introjected), compliance with values is experienced as being controlled (either externally or internally), whereas at the two higher levels (identified and integrated), value-congruent behaviour is seen as being more autonomous or self-initiated. The pinnacle of internalisation, then, is when values become part of one's sense of self and behaviour freely emerges from the self.

Deci and Ryan's (1991) model provides an outline for understanding the internalisation of values generally and seems to apply equally well to moral and non-moral values. In line with this notion, Blasi (1995) has argued that the degree to which moral values have been internalised into one's sense of self is an important part of moral development and functioning. For, when moral values are central to an individual's sense of self, those values are more likely to motivate moral action

(Hardy, 2006). Thus, Deci and Ryan's (1991) model provides a nice conceptual framework for examining moral values internalisation.

During childhood and adolescence, parents play an important role in either fostering or hindering the process of values internalisation (Grusec & Kuczynski, 1997; Grolnick, 2003). Grolnick *et al.* (1997) outlined three dimensions of parenting that seem most facilitative of greater internalisation of values. The first dimension of facilitative parenting is parental *involvement*, wherein parents show interest in and knowledge of their child's life and demonstrate that they have invested in their child's choices and activities. Such positive relatedness induces children to be more willing and motivated to attend to, accept and comply with parental values and expectations. The second facilitative parenting dimension is *autonomy support*, which involves the extent to which parents encourage a strong sense of agency in their children, helping children feel they can choose and self-initiate their own actions. Third, the dimension of *structure* entails information and guidelines to help children successfully self-regulate. Providing appropriate structure involves delineating clear expectations, conveying the importance of those expectations, outlining consequences associated with meeting or not meeting the expectations and consistently following through with those consequences. However, inappropriate structure, which emphasises obedience and compliance with demands, can give children feelings of being pressured or controlled and can be counterproductive (Hoffman, 2000; Grolnick, 2003; Barber *et al.*, 2005). In other words, inappropriate structure can be controlling rather than autonomy supportive and can, thus, lead children and adolescents to be more externally regulated (i.e. regulated by fear of punishment or anticipation of reward).

Interestingly, these three dimensions of facilitative parenting are similar to the dimensions of parenting commonly outlined in the parenting styles literature (Baumrind, 1971; Maccoby & Martin, 1983; Steinberg *et al.*, 1992). Specifically, Baumrind (1971) and Maccoby and Martin (1983) highlight the importance of the two dimensions, *responsiveness* and *demandingness*, which are similar to the involvement and structure dimensions proposed by Grolnick and colleagues (1997). More recently, Steinberg and colleagues (1992) referred to these dimensions as *acceptance/involvement* and *strictness/supervision* and Barber and colleagues (2005) as *parental support* and *behavioural control*, respectively. Although using different names, these different groups of scholars are essentially referring to the same two key dimensions of parenting. Steinberg *et al.* (1992) added a third dimension labelled *psychological autonomy granting*, which they suggested becomes important particularly in adolescence—this is in line with the autonomy support dimension of Grolnick *et al.* (1997).

As far as we are aware no studies have examined the role of these three facilitative parenting dimensions of involvement, structure and autonomy support in the internalisation of moral values in adolescence. However, considerable research has examined links between parenting and moral values internalisation in young children, where internalisation is typically conceptualised as compliance with parental norms in the absence of external punishments or rewards. For instance,

Hoffman (2000) reviews abundant evidence confirming his notion that autonomy-supportive structure (i.e. inductive parenting) fosters moral internalisation, whereas controlling structure (i.e. power assertion) is hindering and leads to a focus on rewards and punishments. Moreover, Kochanska and Aksan (2004) review research suggesting that responsive parent-child relationships lead children to be more eager to internalise parental moral values.

Given the general nature of the mechanisms of values internalisation, research on the internalisation of other, non-moral types of values in adolescence also seems relevant. A number of studies have found the three facilitative parenting dimensions to be linked to greater values internalisation and other-related positive outcomes for adolescents. For example, involvement (Grolnick *et al.*, 1991; Grolnick & Slowiaczek, 1994; Ryan *et al.*, 1994) and autonomy support (Grolnick & Ryan, 1989; Grolnick *et al.*, 1991) have been linked to greater values internalisation and self-regulation regarding academic achievement in adolescence. Further, an experimental study involving college students yielded support for the influence of social contexts that provide autonomy support and structure on values internalisation (Deci *et al.*, 1994). Specifically, when the experimenter provided participants with a meaningful rationale for engaging in the experimental tasks, acknowledged the participants feelings or emphasised their ability to choose their actions, participants were more likely to spend more time on the task and to report greater feelings of freedom, enjoyment and importance. Thus, there is evidence for the relation of these parenting dimensions to non-moral values.

The present study

Despite the extant theoretical discussions on the importance of parenting to the socialisation of moral values, direct empirical research on the links between parenting and moral values internalisation is sparse, especially in adolescence. Yet, given the hypothesised central role of parents in the moral lives of adolescents, it would seem valuable to uncover the types of parenting most strongly associated with moral values internalisation. Hence, the purpose of the present study was to explore relations between parenting dimensions and internalisation of moral values in adolescence. Specifically, relations were examined between the parenting dimensions of involvement, autonomy support and structure and adolescents' internalisation of moral values as conceptualised within Deci and Ryan's (1991) framework of values self-regulation.

Given the sparse research on parenting and internalisation of moral values, it was in some cases difficult to generate specific *a priori* hypotheses. However, based on conceptual work on parenting, as well as prior empirical studies conducted on internalisation in other domains (e.g. academic motivation; Grolnick *et al.*, 1997), tentative hypotheses were developed. In line with expectations of Grolnick *et al.* (1997), it was hypothesised that all three parenting dimensions (involvement, autonomy support and structure) would be positively associated with relative autonomy. This would likewise suggest that all three parenting dimensions would be

more strongly linked to the more self-regulated forms of values regulation (identified and integrated) than to the more controlled forms (external and introjected).

Parenting scholars have argued for the importance of work examining the independent and relative effect of different parenting dimensions (Steinberg *et al.*, 1989; Barber *et al.*, 2005). Thus, in the present study, bivariate correlation analyses were conducted to consider the associations among the parenting dimensions of moral values internalisation and regression analyses were conducted to test the unique effect of each parenting dimension on values internalisation. Further, these studies examining the independent effects of parenting dimensions have also suggested the presence of interactions among parenting dimensions. In other words, it might be that structure is only a facilitative dimension of parenting when in a context of involvement and autonomy support. To examine these possibilities, regression analyses were also conducted to test for interaction effects.

As an outcome, internalisation of moral values in adolescence was captured in two different ways. Adolescents' tendencies to use each of the four forms of values regulation (external, introjected, identified and integrated) were assessed. Additionally, a score was created for each individual that reflected their overall level of internalisation (termed 'relative autonomy': Grolnick & Ryan, 1989) or their general preference for using internal, self-regulated forms of values regulation, as opposed to external, controlled forms of values regulation. Although Deci and Ryan (1991) generally refer to external, introjected, identified and integrated as four forms of self-regulation, they have on occasion also conceptualised them as forms of internalisation of values (e.g. Grolnick *et al.*, 1997). This is because these forms of self-regulation might be thought of as the degree to which behaviour in line with values is regulated internally (such as by an appreciation for the values) or externally (such as by desire for reward). Thus, in the present study Deci and Ryan's (1991) framework was used to examine relations between parenting and moral values internalisation for each form of values regulation, as well as for relative autonomy.

Methods

Participants

The sample included 101 students (71% female; 76% white; M age=16.10, SD=1.17) from a Midwestern public high school in the US. Approximately 47% were living with both biological or adoptive parents, while approximately 14% were living with one biological or adoptive parent and one other adult parental figure. Further, roughly 35% of adolescents had two parents who had completed at least four years of post-secondary education (e.g. college, university or technical school).

Procedure

Data for the present study were collected as part of a larger study investigating adolescent-parent relationships and moral functioning in adolescence. Participants were recruited through visits to high school classrooms. Adolescents who expressed

interest were given letters and consent forms to take home to their parents. Those who returned their letters and signed parental consent participated in the project with one of their parents. To improve participation rates, some parents whose children did not return letters were contacted by telephone and asked about their possible interest in participating in the project. Those who expressed interest were enrolled in the project and families were compensated $20 for their involvement. Adolescents came individually with one parent to the research lab for data collection; 79 participated with their mothers while 22 participated with their fathers. Data for the present study came from self-report questionnaires completed by the adolescents during these data collection sessions. There were no missing data on any of the variables used in these analyses.

Measures

Parenting dimensions. Three dimensions of parenting (involvement, autonomy support and structure) were assessed using the 15-item adolescent-report Parenting Styles Inventory II (PSI-II: Darling & Toyokawa, 1997; Darling *et al.*, 2005); Darling and colleagues label these three dimensions responsiveness, autonomy-granting and demandingness. There were five items that assessed parental involvement (α=.73; sample item: 'My parent spends time just talking to me'), five that assessed autonomy support (α=.67; sample item: 'My parent believes I have a right to my own point of view') and five that assess structure (α=.70; sample item: 'My parent really expects me to follow family rules'). Adolescents were asked to respond to the 15 statements using a 5-point scale from 1 (strongly disagree) to 5 (strongly agree) as they pertained to the parent that was participating in the project with them. Composites for each of the three parenting style dimensions were created by calculating the mean of the five items for the corresponding subscale. This measure of parenting has shown adequate reliability and validity in prior studies (Darling & Toyokawa, 1997; Darling *et al.*, 2005, 2006).

Internalisation of moral values. Moral values internalisation was assessed using the 24-item adolescent-report Moral Values Internalisation Questionnaire based on the Self-Determination Theory approach to internalisation (Deci & Ryan, 1991) and adapted from the Prosocial Self-Regulation Questionnaire used by Ryan and Connell (1989). Participants were presented with six different question stems and each question stem was followed by four items (see Appendix 1). The question stems asked participants to rate the importance of different reasons why they might or might not engage in a certain behaviour, on a scale from 1 (not at all important) to 5 (very important). Because this measure specifically assessed moral values internalisation, two of the question stems pertained to the value of fairness, two to the value of honesty and two to the value of kindness. The four items that followed each question stem were four different reasons why they might or might not engage in the behaviour mentioned in the stem. Of the four items for each question stem, there was one for each of the four forms of values regulation posited by Deci and Ryan (1991). In other words, in total there were six items for external values

regulation (α=.78), six for introjected values regulation (α=.84), six for identified values regulation (α=.71) and six for integrated values regulation (α=.77).

As an example of how the question stems and items were arranged, the following was a sample question stem reflecting the value of kindness: 'How important is each of the following reasons why you might decide to do something nice for someone else.' For this question stem there were four reasons to be rated: one corresponding to external values regulation ('Because I want others to be nice to me'), one for introjected values regulation ('Because I want other people to think I am a nice person'), one for identified values regulation ('Because I think it is good to do nice things for others') and one for integrated values regulation ('Because I am a nice person'). See Appendix 1 for more examples. Each question stem is listed, followed by the four items arranged in the order of external to integrated values regulation or internalisation.

Composite scores for each level of internalisation (i.e. each form of values regulation) were created by calculating the mean of the six items corresponding to each level. Additionally, a composite of overall internalisation, or relative autonomy, was created by differentially weighting individual composite scores on the four levels (-2 for external, -1 for introjected, +1 for identified and +2 for integrated), as done by Grolnick and Ryan (1989). This relative autonomy composite is a score that indicates the degree to which adolescents prefer using more internalised modes of values regulation (identified and integrated) as compared to less internalised modes of values regulation (external and introjected). Although the items used in the present study have not been used previously, the general measurement format has demonstrated adequate reliability and validity in prior studies (Grolnik & Ryan, 1989; Ryan & Connell, 1989).

Results

Preliminary analyses

Means and standard deviations of the main study variables are presented in Table 1. Additionally, we conducted analyses of variance (ANOVAs) to assess gender differences in the study variables. No significant gender differences were found on any study variable. Further, ANOVAs were used to assess whether the gender of the parent was related to adolescent responses. No significant differences for parent gender were found on the three parenting style dimensions. However, both parent and adolescent gender were included as statistical control variables in the regression analyses reported below because the results differed somewhat when they were omitted.

Bivariate correlations were also conducted for the continuous study variables (see Table 1). Age was negatively correlated with introjected values regulation, but not significantly related to the other variables. Because of the link with introjected values regulation, however, age was included as a statistical control variable in the regression analyses that follow. Parental involvement was associated positively with autonomy support and identified and integrated values regulation. In addition,

Table 1. Means, standard deviations and bivariate correlations among primary variables

	1	2	3	4	5	6	7	8	9
1. Adolescent age	-								
2. Involvement	.04	-							
3. Autonomy support	.12	.30**	-						
4. Structure	−.13	.02	−.30**	-					
5. Externalised	−.08	.18	−.12	.25**	-				
6. Introjected	−.22*	.16	−.08	.25**	.73***	-			
7. Identified	−.03	.39***	.12	−.01	.33***	.47***	-		
8. Integrated	.04	.33***	.09	.04	.45***	.58***	.76***	-	
9. Relative autonomy index	.16	.10	.22*	−.28**	−.74***	−.51***	.27**	.21*	-
M	16.10	4.14	3.79	3.75	3.94	4.14	4.34	4.23	.79
SD	1.17	.69	.70	.74	.83	.78	.54	.61	2.02
Range	14–18	2.20–5	1.60–5	1.40–5	1.50–5	1.33–5	2.17–5	2.17–5	−2.5–6.83

Notes: *$p<.05$, **$p<.01$, ***$p<.001$.

autonomy support correlated negatively with structure and positively with relative autonomy. Structure was related positively to external and introjected values regulation and negatively with relative autonomy. As far as correlations among the internalisation variables were concerned, the four forms of values regulation were all associated positively with each other, but to varying degrees. Lastly, external and introjected values regulation were both related negatively to relative autonomy, while identified and integrated values regulation were both related positively to relative autonomy.

Regression analyses of parenting dimensions and moral values internalisation

Five separate hierarchical regression analyses were conducted to assess links between parenting dimensions and moral values internalisation (see Table 2). Prior to conducting these analyses, interaction terms were created for the parenting dimensions by mean centring the parenting variables and then creating three product terms. Age was also mean centred prior to these analyses. In each regression analysis, the statistical control variables (adolescent age, adolescent gender and parent gender) were entered in the first step, the three parenting dimensions (involvement, autonomy support and structure) were simultaneously entered as predictors in the second step and the three interaction terms were entered in the third step. One regression analysis was conducted for each of the four forms of values regulation and one regression analysis was conducted for relative autonomy.

For external values regulation, in step two of the regression analysis, $R^2=.14$, $F(6,94)=2.45$, $p<.05$, structure was positively associated with external values regulation ($\beta=.23$), while involvement and autonomy support were not significantly related. Addition of the interaction terms in the third step did not account for a significant amount of additional variance and none of the interaction terms was significant.

For introjected values regulation, the second step of the regression analysis, $R^2=.14$, $F(6,94)=2.45$, $p<.05$, likewise found structure to be the only parenting dimension significantly related to the outcome ($\beta=.22$); however, adolescent age was also a significant negative predictor. Inclusion of the interaction terms in step three did not explain a significant amount of additional variance and none of the interaction terms was significant.

For identified values regulation, in the second step of the regression analysis, $R^2=.18$, $F(6,94)=3.45$, $p<.01$, involvement was positively linked to identified values regulation ($\beta=.39$), but autonomy support and structure were not significantly related. In the third step, although addition of the interaction terms did not account for a significant amount of additional variance, $\Delta R^2=.05$, $\Delta F(3,91)=2.05$, *ns*, the interaction of involvement and autonomy support was significant ($\beta=.24$). As can be seen in Figure 1, this positive interaction suggests that the relation between autonomy support and identified values regulation is dependent upon the level of parental involvement such that at higher levels of involvement the relation between autonomy support and values regulation was more positive. In fact,

Table 2. Regression analyses of parenting style dimensions and moral values internalisation

	Internalisation of values									
	Level 1 Externalised		Level 2 Introjected		Level 3 Identified		Level 4 Integrated		Relative Autonomy Index	
	B(*SE*)	*β*	*B*(*SE*)	*β*	*B*(*SE*)	*β*	*B*(*SE*)	*β*	*B*(*SE*)	*β*
Step 1:										
Adolescent age	−.07(.07)	−.10	−.16(.07)	−.23*	−.02(.04)	−.05	.01(.05)	.01	.30(.17)	.17
Adolescent gender	.19(.18)	.11	.14(.17)	.08	.18(.12)	.15	.22(.14)	.16	.10(.45)	.02
Parent gender	.25(.20)	.12	.08(.19)	.04	.02(.13)	.02	−.004(.15)	−.002	−.56(.49)	−.12
R^2	.03		.06		.02		.03		.04	
Step 2:										
Adolescent age	−.05(.07)	−.07	−.14(.07)	−.21*	−.03(.04)	−.07	.003(.05)	.005	.22(.17)	.12
Adolescent gender	.18(.18)	.10	.14(.17)	.08	.19(.11)	.16	.23(.13)	.17	.13(.44)	.03
Parent gender	.28(.20)	.14	.10(.18)	.06	−.03(.12)	−.02	−.04(.14)	−.03	−.78(.48)	−.16
Involvement	.23(.12)	.19	.19(.12)	.17	.30(.08)	.39*	.28(.09)	.32*	.21(.30)	.07
Autonomy support	−.13(.13)	−.10	−.04(.12)	−.04	.03(.08)	.04	.03(.09)	.04	.38(.31)	.13
Structure	.26(.12)	.23*	.23(.11)	.22*	−.01(.07)	−.01	.04(.08)	.05	−.66(.28)	−.24*
R^2	.14*		.14*		.18*		.14*		.14*	
ΔR^2	.10*		.08*		.16*		.11*		.10*	
Step 3:										
Adolescent age	−.05(.07)	−.07	−.14(.07)	−.20*	−.03(.04)	−.06	.02(.05)	.03	.24(.17)	.14
Adolescent gender	.18(.19)	.10	.11(.17)	.07	.18(.11)	.16	.21(.13)	.15	.12(.44)	.03
Parent gender	.25(.20)	.13	.08(.19)	.04	−.03(.12)	−.02	−.09(.14)	−.06	−.80(.48)	−.16
Involvement	.23(.13)	.19	.18(.12)	.16	.32(.08)	.41*	.29(.09)	.33*	.26(.30)	.09
Autonomy support	−.17(.14)	−.14	−.05(.13)	−.04	.05(.09)	.06	−.002(.10)	−.003	.43(.34)	.15
Structure	.21(.13)	.19	.21(.12)	.20	.01(.08)	.01	−.001(.09)	−.002	−.63(.30)	−.23*
Involvement X Autonomy support	−.08(.20)	−.04	.16(.19)	.09	.30(.13)	.24*	.33(.14)	.23*	.94(.49)	.20
Involvement X Structure	.13(.17)	.09	.05(.16)	.04	−.03(.11)	−.03	.17(.12)	.16	−.002(.41)	−.001
Autonomy support X Structure	−.14(.19)	−.08	−.10(.18)	−.06	.19(.12)	.17	−.03(.13)	−.02	.52(.46)	.12
R^2	.14*		.15		.23*		.22*		.18*	
ΔR^2	.01		.02		.05		.08*		.04	

Notes: N=101; *p<.05.

Adolescent gender coded as 0 (male), 1 (female); Parent gender coded as 0 (male), 1 (female).

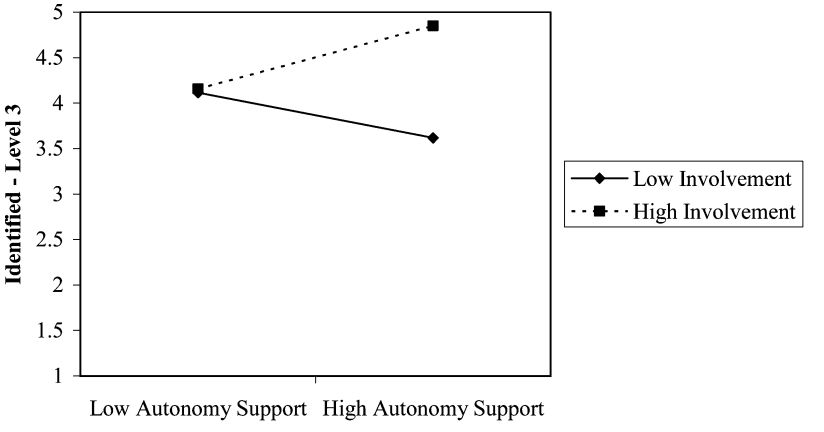

Figure 1. Plotted interaction for autonomy support and involvement predicting identified internalisation

this figure suggests that at low levels of involvement the relation between autonomy support and identified values regulation may be negative.

Similarly, for integrated values regulation, step two of the regression analysis, $R^2=.14$, $F(6,94)=2.55$, $p<.05$, found only responsiveness to be a significant predictor ($\beta=.32$). Additionally, inclusion of the interaction terms in step three accounted for a significant amount of additional variance, $\Delta R^2=.08$, $\Delta F(3,91)=2.97$, $p<.05$. Further, once again the interaction between involvement and autonomy support was significant ($\beta=.23$). More specifically, as indicated in Figure 2, as with identified values regulation, at higher levels of parental involvement the relation between autonomy support and integrated values regulation is more positive than at lower levels.

Surprisingly, in the second step of the final regression analysis, wherein relative autonomy was the outcome, $R^2=.14$, $F(6,94)=2.53$, $p<.05$, structure was the only

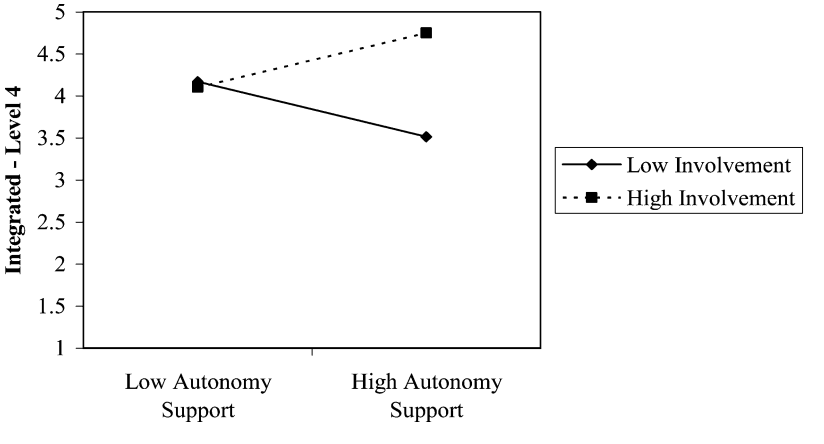

Figure 2. Plotted interaction for autonomy support and involvement predicting integrated internalisation

significant predictor, and it was negatively related to relative autonomy ($\beta = -.24$). Further, addition of the interaction terms in the third step did not significantly increase the variance explained and none of the interaction terms was significant—although there was a positive trend for the interaction of involvement and autonomy support.

Due to concerns about social desirability bias in research using self-report data, particularly data prone to these biases such as data on morality, the above reported regression analyses were rerun adding a measure of social desirability (Crowne & Marlowe, 1964) as a covariate in the initial step. Only two findings changed with inclusion of social desirability. First, the strength of the beta coefficient ($\beta = .22$) for parental structure predicting introjected values regulation dropped such that it became only marginally significant ($\beta = .19$, $p = .06$). Second, the additional variance accounted for by step three $\Delta R^2 = .08$, $\Delta F(3,91) = 2.97$, $p < .05$, dropped below significance, $\Delta R^2 = .06$, $\Delta F(3,90) = 2.52$, $p = .06$. Given that these results did not differ substantially from those reported above, the original results were retained.

Discussion

The purpose of the present study was to assess the link between parenting dimensions (involvement, autonomy support and structure) and the internalisation of moral values during adolescence. In terms of bivariate relations, adolescents who rated their parent higher on involvement scored higher on the two advanced forms of values regulation (identified and integrated), while those who rated their parent as higher on structure scored higher on the two less advanced forms of values regulation (externalised and introjected). Further, adolescents who rated their parent higher on autonomy support showed higher relative autonomy, while those who rated their parent higher on structure showed lower relative autonomy. Results for the regression analyses, which considered the unique effect of the parenting dimensions on moral values internalisation, were similar, with the exception that parental autonomy support did not remain a significant predictor of adolescent relative autonomy. Lastly, in the case of identified and integrated values internalisation, involvement and autonomy support interacted such that the relation between autonomy support and values internalisation was dependent upon the level of parental involvement.

While the pattern of results provide intriguing insights regarding links between parenting and adolescents' internalisation of moral values, several of the findings were not consistent with *a priori* expectations. Specifically, it was anticipated that structure would have a positive impact on values internalisation and, thus, that in the present analyses it would be positively associated with adolescents' relative autonomy. However, as indicated above, it was negatively associated with relative autonomy. The most likely interpretation of this pattern of findings is that the parenting measure used in the present study did not assess an adaptive form of structure that reflected autonomy support, but, rather, seemed to assess a more controlling, maladaptive form of structure. Recent evidence suggests structure may

be a complex facet of parenting that is difficult to cleanly assess (Barber *et al.*, 2005). When structure involves excessive pressure, surveillance and focus on compliance, it can be seen negatively by adolescents and can actually hinder values internalisation. There are several indicators that the structure assessed in the present study may have largely been perceived negatively by adolescents. First, in bivariate correlations structure was negatively correlated with parental autonomy support. Thus, parents who were seen as providing more structure were seen as providing less autonomy support. Second, in the bivariate correlations and regression analyses structure was positively associated with the two controlled forms of values regulation (externalised and introjected) and was negatively associated with relative autonomy. This suggests that adolescents who reported their parents as providing higher levels of structure were less motivated to comply with values based on some appreciation for the value itself and more motivated to comply with values in order to avoid negative consequences (e.g. punishment) or to receive positive consequences (e.g. approval). Hence, this pattern of results strongly suggests that the structure assessed in the present study may be the type identified previously as controlling structure (Grolnick *et al.*, 1997; Grolnick, 2003).

The fact that these findings regarding structure were unexpected and that the structure subscale of the parenting measure did not perform as we had anticipated, does not diminish the importance of the results. Rather, a key message gleaned from these results is the sensitive role of structure in adolescents' internalisation of values. Specifically, the results suggest that controlling structure, while it may be associated with greater compliance with values based on anticipated consequences, may actually hinder the process of values being accepted and internalised. This is consistent with prior discussions and studies of controlling structure (Grolnick *et al.*, 1997; Grolnick, 2003). Thus, while structure, if provided in an autonomy supportive way, can help youth understand the importance of values and give them guidance in living those values, thus facilitating values internalisation, controlling structure results in mere behavioural compliance, with the values remaining external to the self.

In addition to the results for structure, several interesting findings emerged for parental involvement. As expected, teens who reported their parent as being higher on involvement also scored higher on the two advanced forms of values regulation (identified and integrated). However, surprisingly, involvement was not significantly associated with adolescent relative autonomy in the bivariate correlations or the regression model. It is unclear why this was the case. In prior studies, involvement has sometimes (Grolnick *et al.*, 1991; Grolnick & Slowiaczek, 1994; Ryan *et al.*, 1994), though not always (Grolnick & Ryan, 1989), been linked to the relative autonomy index. However, even when significant findings do emerge, the associations are often modest (Grolnick *et al.*, 1991; Ryan *et al.*, 1994). In this study, involvement did show positive, but non-significant, relations to the two less advanced forms of values regulation (externalised and introjected). Therefore, it is possible that involvement has some role in facilitating all four forms of values regulation, resulting in non-significant or modest relations with the relative

autonomy index. Thus, as Grolnick and colleagues have argued (Grolnick *et al.*, 1997; Grolnick, 2003), it seems that parental involvement may play a role in moral values internalisation, but further research is needed to better elucidate the nature of this association.

A few interesting findings also emerged for links between autonomy support and moral values internalisation. Adolescents who reported their parent as being more autonomy supportive also scored higher on the relative autonomy index. However, in the presence of the other predictors in the regression model, this relation dropped below significance. Given the negative bivariate association between autonomy support and structure, it is understandable that in the regression model a substantial portion of the covariance between autonomy support and relative autonomy was accounted for by structure. In other words, there seems to be overlap between the autonomy support and structure subscales such that in regression analyses autonomy support no longer accounted for a significant amount of unique variance in relative autonomy.

In addition to direct effects of the parenting dimensions on values internalisation, interaction effects were uncovered for identified and integrated internalisation. Specifically, it was found that while at higher levels of parental involvement autonomy support is positively linked to values internalisation, this relation becomes negative at lower levels of involvement. This result reinforces the notion that the importance and specific role of various aspects of parenting might hinge upon other facets of the parenting context (Barber *et al.*, 2005). In this case, providing independence in a context with low parental concern and involvement may not be adaptive.

Taken together these findings do seem to indicate that autonomy support may play a role in facilitating internalisation. Few studies have examined the role of parental autonomy support in positive adolescent development (most studies have focused on involvement and structure); hence, more work is needed in this area. In particular, further research is needed to disentangle the roles of autonomy support and structure. Although Barber *et al.* (2005) argue that these two facets of parenting are separate dimensions (rather than opposite ends of a continuum), they do not seem to be completely orthogonal.

Despite the interesting findings regarding the relations between parenting and moral values internalisation in adolescence, there were several limitations to the present study. First, the study was a cross-sectional design, limiting our ability to draw causal inferences from the results. Specifically, given the methodology used, it was unclear whether or not the parenting dimensions had causal influence on adolescents' moral values internalisation. For instance, an alternative explanation may be that teenagers who more readily internalise moral values have a better relationship with their parents and, thus, perceive their parents as more involved, autonomy supportive and less controlling (Kerr & Stattin, 2003). A second limitation is that all the measures were adolescent-report. Thus, the pattern of results could be confounded by other variables, such as social desirability or differences in style of speech. Still, research suggests that adolescents' self-reports

are more robustly related to adolescents' behaviour than parent reports, particularly when studying internal traits (Clarke *et al.*, 1992). Further, results in the present study did not differ substantially when statistically controlling for social desirability. Nevertheless, future research would benefit from multiple informant data. The third limitation of the current study is the relatively small sample size, which might account for some of the non-significant findings. More importantly, the representation of certain subpopulations—particularly males and ethnic groups other than European American—was insufficient to allow for the relations between parenting and moral values to be compared across these groups. Thus, future research should examine these questions using a larger, more diverse sample and should examine gender and ethnic differences in the role of parenting in moral values socialisation.

Conclusion

The present study was a much-needed examination of relations between parenting dimensions and adolescents' moral values internalisation. The pattern of results reported provides important insights into the role of different parenting dimensions in terms of predicting different forms of values regulation as well as overall internalisation of moral values. Specifically, it seems that all three dimensions of parenting examined here (involvement, autonomy support and structure) may play a role in the internalisation of moral values in adolescence. Whereas controlling structure was associated with more controlled values regulation, involvement and autonomy support were linked to more autonomous values regulation.

These findings have a number of implications for moral education more broadly. Some have argued that the classroom should be patterned to some extent after the home, with effective teachers being those that emulate certain parental characteristics (Zhang, 2007). In this vein, the present findings regarding structure lend support to evidence that although authoritarian classroom environments might engender compliance with class rules, they might not facilitate deeper internalisation of moral values necessary for compliance with moral values outside of the classroom context (Barone, 2004). Also, the results regarding links between parental involvement and higher level values internalisation are in line with prior work suggesting that the quality of the teacher-student relationship might be of critical importance for the fostering of moral character in school settings (Halstead & Taylor, 2000). Specifically, just as adolescents might attend more to warm and involved parents, and be more likely to accept their explicit and implicit moral values messages, adolescents might respond similarly to concerned and involved teachers.

In closing, the present findings have important applied implications. Insight may be gleaned from these results that can aid those involved in moral or character education programs in knowing how to best facilitate moral values internalisation in adolescents. The upshot is that although controlling interactions with youth may lead to immediate compliance, this way of relating with adolescents may hinder the processes by which they accept moral values and are autonomously guided by them in their lives. Rather, parents and teachers should be educated about ways to

improve the quality of their relationships with adolescents and to provide structure conducive to the adolescent's sense of autonomy, self-efficacy and individual identity. Given these findings and the paramount importance of better understanding of predictors of adolescent moral development, further work on the links between parenting dimensions and moral values internalisation in adolescence is warranted. Such research efforts will prove fruitful because greater understanding of the parenting dimensions that are facilitative or hindering to moral values internalisation could provide information critical for improving how we socialise morality in our society.

Acknowledgements

The authors greatly appreciate the assistance and cooperation of the staff, students and parents of Lincoln Public Schools, Lincoln, Nebraska, particularly the staff from Lincoln High School. The authors are also indebted to the following undergraduate research assistants for their help with data collection and entry: Jason Kisling, Jeff Babl, Sommer Jindra, Veronica Barra, Karen Petro, Shaun Connors, George Nightingale, Hannah Boeka, Laura Peterson, Ashley Schwieger, Jody Hoffman, Skyler Stokes, Jamie Boesche, Hope Van Houten, Jeremy Miller and Lucy Santamaria.

References

Barber, B. K., Stolz, H. E. & Olsen, J. A. (2005) Parental support, psychological control and behavioral control: assessing relevance across time, culture and method, *Monographs of the Society for Research in Child Development*, 70(4), 1–137.

Barone, T. N. (2004) Moral dimensions of teacher-student interactions in Malaysian secondary schools, *Journal of Moral Education*, 33(2), 179–196.

Baumrind, D. (1991) Parenting styles and adolescent development, in: J. Brooks-Gunn, R. Lerner & A. C. Petersen (Eds) *The encyclopedia of adolescence* (New York, Garland), 746–758.

Blasi, A. (1995) Moral understanding and the moral personality: the process of moral integration, in: W. M. Kurtines & J. L. Gewirtz (Eds) *Moral development: an introduction* (Needham Heights, Allyn & Bacon), 229–253.

Bond, M. H. & Chi, V. M. (1997) Values and moral behaviour in mainland China, *Psychologia*, 40(4), 251–264.

Clarke, G. N., Lewinsohn, P. M., Hops, H. & Seeley, J. R. (1992) A self- and parent-report measure of adolescent depression: the Child Behavior Checklist Depression scale (CBCL-D), *Behavioral Assessment*, 14(3–4), 443–463.

Crowne, D. P. & Marlowe, D. (1964) *The approval motive* (New York, Wiley).

Darling, N., Cumsille, P., Caldwell, L. L. & Dowdy, B. (2006) Predictors of adolescents' disclosure to parents and perceived parental knowledge: between- and within-person differences, *Journal of Youth and Adolescence*, 35(4), 667–678.

Darling, N., Cumsille, P. & Peña-Alampay, L. (2005) Rules, legitimacy of parental authority, and adolescent autonomy in Chile, the Philippines and the United States, *New Directions in Child and Adolescent Development*, 108, 47–60.

Darling, N. & Toyokawa, T. (1997) Construction and validation of the parenting styles inventory II (PSI-II) (Unpublished manuscript).

Deci, E. L., Eghrari, H., Patrick, B. C. & Leone, D. R. (1994) Facilitating internalization: the self-determination theory perspective, *Journal of Personality*, 62(1), 119–142.

Deci, E. L. & Ryan, R. M. (1991) A motivational approach to self: integration in personality, in: R. A. Dienstbier (Ed.) *Nebraska symposium on motivation, 1990: perspectives on motivation* (Lincoln, University of Nebraska Press), 237–288.

Grolnick, W. S. (2003) *The psychology of parental control: how well-meant parenting backfires* (Mahwah, Lawrence Erlbaum Associates).

Grolnick, W. S., Deci, E. L. & Ryan, R. M. (1997) Internalisation within the family: the self-determination theory perspective, in: J. E. Grusec & L. Kuczynski (Eds) *Parenting and children's internalisation of values: a handbook of contemporary theory* (New York, John Wiley & Sons), 135–161.

Grolnick, W. S. & Ryan, R. M. (1989) Parent styles associated with children's self-regulation and competence in school, *Journal of Educational Psychology*, 81(2), 143–154.

Grolnick, W. S., Ryan, R. M. & Deci, E. L. (1991) Inner resources for school achievement: motivational mediators of childrens' perceptions of their parents, *Journal of Educational Psychology*, 83(4), 508–517.

Grolnick, W. S. & Slowiaczek, M. L. (1994) Parent's involvement in children's schooling: a multidimensional conceptualization and motivational model, *Child Development*, 65(1), 237–252.

Grusec, J. E. (2002) Parenting socialization and children's acquisition of values, in: M. H. Bornstein (Ed.) *Handbook of parenting (vol. 5): practical issues in parenting* (2nd edn) (Mahwah, Lawrence Erlbaum Associates), 143–167.

Grusec, J. E. & Goodnow, J. J. (1994) Impact of parental discipline methods on the child's internalisation of values: a reconceptualization of current points of view, *Developmental Psychology*, 30(1), 4–19.

Grusec, J. E., Goodnow, J. J. & Kuczynski, L. (2000) New directions in analyses of parenting contributions to children's acquisition of values, *Child Development*, 71(1), 205–211.

Grusec, J. E. & Kuczynski, L. (Eds) (1997) *Parenting and children's internalisation of values: a handbook of contemporary theory* (New York, John Wiley & Sons).

Halstead, J. M. & Taylor, M. J. (2000) Learning and teaching about values: a review of recent research, *Cambridge Journal of Education*, 30(2), 169–202.

Hardy, S. A. (2006) Identity, reasoning, and emotion: an empirical comparison of three sources of moral motivation, *Motivation and Emotion*, 30(3), 207–215.

Hardy, S. A. & Carlo, G. (2005) Religiosity and prosocial behaviours in adolescence: the mediating role of prosocial values, *Journal of Moral Education*, 34(2), 231–249.

Hoffman, M. L. (2000) *Empathy and moral development: implications for caring and justice* (New York, Cambridge University Press).

Kerr, M. & Stattin, H. (2003) Parenting of adolescents: action or reaction?, in: A. C. Crouter & A. Booth (Eds) *Children's influence on family dynamics: the neglected side of family relationships* (Mahwah, Lawrence Erlbaum Associates), 121–151.

Knafo, A. & Schwartz, S. H. (2003) Parenting and adolescents' accuracy in perceiving parental values, *Child Development*, 74(2), 595–611.

Kochanska, G. (2002) Committed compliance, moral self and internalisation: a mediational model, *Developmental Psychology*, 38(3), 339–351.

Kochanska, G. & Aksan, N. (2004) Conscience in childhood: past, present and future, *Merrill-Palmer Quarternly*, 50, 299–310.

Maccoby, E. & Martin, J. (1983) Socialization in the context of the family: parent-child interaction, in: E. M. Hetherington (Ed.) *Handbook of child psychology (vol. 4): socialization, personality, and social development* (New York, John Wiley & Sons), 1–101.

Padilla-Walker, L. M. (2007) Characteristics of mother-child interactions related to adolescents' positive value and behaviors, *Journal of Marriage and Family*, 69(3), 675–686.

Padilla-Walker, L. M. & Carlo, G. (2007) Personal values as a mediator between parent and peer expectations and adolescent behaviours, *Journal of Family Psychology*, 21(3), 538–541.

Ryan, R. M. & Connell, J. P. (1989) Perceived locus of causality and internalisation: examining reasons for acting in two domains, *Journal of Personality and Social Psychology*, 57(5), 749–761.

Ryan, R. M., Stiller, J. D. & Lynch, J. H. (1994) Representations of relationships to parents, teachers and friends as predictors of academic motivation and self-esteem, *Journal of Early Adolescence*, 14(2), 226–249.

Steinberg, L. (1990) Autonomy, conflict and harmony in the family relationship, in: S. S. Feldman & G. R. Elliot (Eds) *At the threshold: the developing adolescent* (Cambridge, Harvard University Press), 255–276.

Steinberg, L., Elmen, J. D. & Mounts, N. S. (1989) Authoritative parenting, psychosocial maturity and academic success among adolescents, *Child Development*, 60(6), 1424–1436.

Steinberg, L., Lamborn, S. D., Dornbusch, S. M. & Darling, N. (1992) Impact of parenting practices on adolescent achievement: authoritative parenting, school involvement and encouragement to succeed, *Child Development*, 63(5), 1266–1281.

Zhang, J. H. (2007) Of mothers and teachers: roles in a pedagogy of caring, *Journal of Moral Education*, 36(4), 515–526.

Appendix 1. Question stems and items for the Moral Values Internalisation Questionnaire

How important is each of the following reasons for why you might decide not to cheat on a test in school?

1. Because if I get caught, I could get an F on my test.
2. Because I would not want my teacher to think I am a cheater.
3. Because I believe cheating is dishonest.
4. Because I am not a dishonest person.

How important is each of the following reasons for why you might decide to tell the truth when given an opportunity to lie?

5. Because I wouldn't want to get in trouble for lying.
6. Because I would not want people to think of me as a liar.
7. Because I think telling the truth is the right thing to do.
8. Because I consider myself an honest person.

How important is each of the following reasons for why you might do something nice for someone else?

9. Because I want others to be nice to me.
10. Because I want other people to think I am a nice person.
11. Because I think it is good to do nice things for others.
12. Because I am a nice person.

How important is each of the following reasons for why you might decide not to make fun of another person for making a mistake?

13. Because then someone might make fun of me.
14. Because I would not want others to think I am mean.
15. Because it is wrong to make fun of others.

16. Because I do not think of myself as a mean person.

How important is each of the following reasons for why you might not take something that doesn't belong to you?

17. Because if I get caught I could get in trouble.
18. Because other people would be disappointed in me.
19. Because I think stealing is unfair.
20. Because I don't think of myself as a person who is unfair.

How important is each of the following reasons for why you might pay someone back who has lent you money?

21. Because I might want to borrow from them again some time.
22. Because I would want other people to think I am fair.
23. Because I think paying someone back is the fair thing to do.
24. Because I consider myself to be a fair person.