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Aggressive behavior in early elementary school children: Relations to authoritarian parenting, children's negative emotionality and coping strategies

Siu Mui Chan<sup>1</sup>

Hong Kong Institute of Education

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<sup>1</sup> All correspondence should be directed to S. M. Chan at [smho@ied.edu.hk](mailto:smho@ied.edu.hk)

### Abstract

This study examined whether authoritarian parenting, children's negative emotionality and negative coping strategies independently or jointly predict children's aggressive behavior at school. Participants included the teachers and mothers of 185 Hong Kong Chinese children (90 girls and 95 boys) aged 6 to 8. Teachers rated the children's aggressive behavior at school, and mothers reported how often they adopted an authoritarian parenting style and rated the children's negative emotionality and coping strategies. A model predicting children's aggressive behavior with maternal authoritarian parenting and children's negative emotionality affecting children's aggressive behavior at school through the mediating effect of children's negative coping strategies was examined. Mother's adoption of authoritarian parenting was not related to their perception of the children's negative emotionality. Neither authoritarian parenting nor negative emotionality alone predicted children's aggressive behavior at school. The mediation model was supported. The results imply that school personnel should take children's emotionality into consideration when offering training programmes on emotion coping strategies for children.

**Keywords:** aggression, coping strategies, authoritarian parenting, negative emotionality.

## Aggressive behavior in early elementary school children: Relations to authoritarian parenting, children's negative emotionality and coping strategies

Aggressive behavior in school can have far-reaching adverse consequences for the child exhibiting the behavior and create a stressful environment for peers and teachers. It can affect social competence and school performance of the child (Chen, Dong, & Zhou, 1997; Chen, Rubin, & Li, 1995; Rubin, Bukowski, & Parker, 1998) and is found to have high stability (Chen, Wang, Chen, & Liu, 2002). The adverse effects can be pervasive. It has long been a major concern of researchers and practitioners in Western society (Acosta, Albus, Reynolds, Spriggs, & Weist, 2001). Recently, teachers have noted that aggressive behavior in young children has become a problem in both Hong Kong and mainland China (Fung & Tsang, 2006) but studies on aggressive behavior of Chinese children is far less in number as compared to those conducted with Western children.

Research on children's aggression has approached this problem by examining three categories of factors: (a) children's internal factors, such as temperament, gender and emotion-regulation abilities; (b) socialization factors, such as parenting styles and parental behavior; and (c) contextual factors, such as family structure and school climate (Rubin, Buryess, Dwyer, & Hastings, 2003). The present study focused on factors belonging to the first two categories of factors. Several studies have concluded that negative parenting predicts young children's maladaptive emotion coping strategies (e.g., Calkins, Smith, Gill, & Johnson, 1998; Stansbury & Zimmermann, 1999) and aggressive behavior (Chen et al., 1997; Chen et al., 2002). Children's emotionality and coping strategies have also been found to be related to children's aggressive behavior (Eisenberg et al., 1995; Eisenberg, Fabes, Shepard, et al., 1997). Therefore, the present study examined the effects of authoritarian parenting,

children's emotionality and coping strategies on children's aggressive behavior.

### *Emotion Coping Strategies and Aggressive Behavior*

Coping starts when a child experiences or expects to experience strong emotions (Losoya, Eisenberg, & Fabes, 1998). The definition of coping proposed by Karoly (1993) was adopted in this study. Karoly defines coping as regulating emotions by means of "modulation of thought, affect, behavior, or attention via deliberate or automated use of specific mechanisms and supportive metaskills" (p. 25).

Peer interactions are characterized by high emotion arousal (Garner & Estep, 2001). Problems in emotion regulation have been found to be linked with children's social and behavioral problems (Eisenberg, Fabes, Guthrie, & Reiser, 2000). Therefore, children's emotion coping skills are essential to their social functioning as these skills affect their ability to manage complex interpersonal exchanges with peers (Denham, 2001; Parke, 1994; Saarni & Crowley, 1990). Failure to learn effective or constructive ways of regulating emotion appears to underlie the association between authoritarian parenting and children's aggressive behavior.

### *Chinese Authoritarian Parenting as Related to Children's Aggressive Behavior and Negative Coping Strategies*

Both the literature and research findings describe Chinese parents as more controlling or authoritarian than their Western counterparts (Chen et al., 1997; Chen et al., 1998; Pearson & Rao, 2003). While Chinese parents are described as authoritarian, many studies conducted in Western societies have found that authoritarian or harsh parenting is related to children's negative coping strategies and aggressive behavior (e.g., Fabes, Leonard, Kupanoff, & Martin, 2001; Jones, Eisenberg, Fabes, & MacKinnon, 2002; Stansbury & Zimmermann, 1999).

Authoritarian parenting is a label for parenting that is low in responsiveness and

warmth and high in coercive control. The disciplinary strategies used include physical punishment, verbal hostility and nonreasoning (Lagace-Seguin & d'Entremont, 2006; Robinson, Mandleco, Olsen, & Hart, 1995). Nevertheless, Chao (1994) asserts that authoritarian parenting, which has been found to lead to undesirable developmental outcomes in Western societies, may not have the same effects among Chinese children because of the different meaning associated with it for Chinese people. Since Chao's study, an increasing number of researchers have conducted studies with Chinese samples to investigate whether the influence of authoritarian parenting on children's development is culturally unique or common (e.g., Chen et al., 1997; Pearson & Rao, 2003).

Chen and colleagues conducted a series of studies examining Chinese negative parenting. They found that authoritarian parenting is associated with 8-year-old children's aggressive and disruptive behavior at school (Chen et al., 1997), and that power assertion by parents is related to the aggressive behavior of 4-year-old children (Chen, Wu, Chen, Wang, & Cen, 2001) and physical and verbal aggression of 2-year-old children (Chen et al., 2002), both displayed in laboratory settings. Nelson, Hart, Yang, Olson, and Jin (2006) also found that aversive parenting is associated with physical and relational aggression of children aged 4 to 6, rated by peers. These studies conducted with Chinese parents and children in mainland China provide evidence that authoritarian parenting has the same detrimental effects on children's social development as it does in Western societies. However, compared to the number of studies conducted with Western parents and children, studies on the relationship between Chinese authoritarian parenting and social development of junior graders are still few (Chang, Schwartz, Dodge, & McBride-Chang, 2003; Zhou, Eisenberg, Wang, & Reiser, 2004), especially those with Chinese populations outside of mainland

China.

Authoritarian parenting may be related to children's aggressive behavior in several ways. The underlying mechanism may be a social learning process, in which children model the coercive and controlling disciplinary style of their parents and adopt a similar style in their social interactions with peers (Nelson et al., 2006). Other than the negative behavior, the negative emotion associated with authoritarian parenting may also have adverse effects. Parents' negative expressivity is likely to arouse children's negative emotions which in turn hampers children's ability to focus or control attention on their parents' teaching. As a result, they are less likely to benefit from parental teaching including how to handle or regulate emotions (Garner & Estep, 2001; Hoffman, 2000). In the same direction, Blair (2002) suggests that children who always experience negative emotions may have difficulty in applying higher order cognitive processes such as reflective planning and problem solving, and when these processes are underused, they are underdeveloped. These children may then be unable to regulate their emotions when experiencing negative emotions during peer interactions.

Eisenberg, Cumberland, and Spinrad (1998) highlight the mediating role of children's emotion coping strategies in the process. They postulate that children experiencing negative parenting are less likely to maintain an optimal level of arousal for learning constructive ways of coping with emotions and may, instead, model the negative emotion coping strategies of their parents. The findings of Garner and Estep (2001) support this postulation. They found that maternal anger directed towards the child predicted the child's nonconstructive coping, such as venting and physical and verbal retaliation in peer social interactions. They explain that, expressing high levels of negative emotions, mothers may fail to teach their children emotion regulation and

social problem-solving strategies.

The above discussion implies that family and peer groups are not separate systems because parental child rearing practices and interactive styles influence children's learning of emotion coping strategies which may be transferred to peer interactions. However, studies on the mediating process between family and peer groups are limited (see Mize, Pettit, & Meece, 2000). The finding of Smith et al. (2006) that children's coping strategies mediated the association between parental socialization and children's psychosocial adjustment provides some support for the mediation model. In Chang et al.'s (2003) study, maternal harsh parenting predicted the emotion regulation of Chinese children aged 4 to 6 years as rated by mothers, which in turn predicted the aggressive behavior at school of children as rated by teachers. Zhou et al. (2004) found that Chinese children's effortful control mediated the association between authoritarian parenting and children's social competence. The aforementioned research findings suggest that children's negative coping strategies mediate the effects of authoritarian parenting on their aggressive behavior at school.

In the present study, both the direct effects of authoritarian parenting on children's aggressive behavior and its indirect effects as mediated by children's coping strategies were examined.

#### *Children's Negative Emotionality as Related to Their Aggressive Behavior and Coping Strategies*

Emotionality has been conceptualized as a temperamental variable (Eisenberg et al., 1995; Goldsmith & Campos, 1982) and is operationalized in terms of intensity of emotion (e.g., Larsen & Diener, 1987) and frequency of affect (e.g., Watson, Clark, & Tellegen, 1988); in other words, emotionality is how easily emotions are aroused and how intense they are (Eisenberg et al., 1995). It follows then that emotionality is

related to coping with emotions. Negative emotionality predicts problem behavior better than general emotionality does (Eisenberg, Fabes, Shepard, et al., 1997), so negative emotionality was included as a variable in the present study.

Emotional intensity has been linked to children's anger reactions in the school context (Eisenberg, Fabes, Nyman, et al., 1994), and negative emotionality has been found to be associated with children's externalizing behavior in several studies (e.g., Rothbart, Ahadi, & Hershey, 1994). However, whether negative emotionality leads to aggressive behavior may depend on how well the child can control his/her emotions (Eisenberg et al., 2000). Research findings suggest that problems in regulating emotion may result in externalizing behavior (Cole, Michel, & O'Donnell Teti, 1994; Cole & Zahn-Waxler, 1992). Hypothetically, children with high negative emotionality, meaning that they are easily and intensely aroused, need to make a greater effort or develop more effective coping strategies to regulate or manage emotions (Morris, Silk, Steinberg, Myers, & Robinson, 2007). However, these children may become too aroused to engage in effective coping strategies and are so overwhelmed that they express their emotions inappropriately (Eisenberg, Fabes, Shepard, et al., 1997; Goodvin, Carlo, & Torquati, 2006; Lengua & Long, 2002). Aggressive behavior may then be displayed.

Eisenberg and colleagues reported that negative emotionality together with poor emotion regulation predicted externalizing problems (Eisenberg, Fabes, Shepard, et al., 1997; Eisenberg, Fabes, Guthrie, et al., 2000; Eisenberg, Guthrie, Fabes, et al., 2000). In their studies, emotion coping strategies were not included as a measure of emotion regulation. Instead, emotion regulation was measured in terms of temperamental traits such as attentional regulation, effortful control, ego control or how well the child can control his/her emotions (Rydell, Berlin, & Bohlin, 2003). These traits are



dispositional in nature (Derryberry & Rothbart, 1997; Rothbart & Bates, 1998) and hence are not easily amenable to intervention.

In the present study, emotion coping strategies were included. An important developmental task of children of junior elementary school age is to develop the ability to self-regulate their emotions (Shields & Cicchetti, 1997). To help aggressive children, especially those with high negative emotionality, an examination of children's learned emotion coping strategies would, therefore, be helpful. Research has found that children's negative emotionality and destructive or non-constructive emotion coping strategies predicted their problem behavior (Eisenberg, Fabes, Bernzweig, & Karbon, 1993; Eisenberg, Fabes, & Guthrie, 1997; Eisenberg, Fabes, Nyman, et al., 1994; Eisenberg et al., 1995). The influences of emotionality and coping strategies were found to be additive or correlated in these studies. Whether coping strategies mediate the influence of negative emotionality on aggressive behavior, however, has not been examined.

Based on the above discussion, the current study examined both the direct effect of children's negative emotionality on their adoption of coping strategies and the mediating role of children negative coping strategies on the association between children's negative emotionality and their coping strategies.

#### *Children's Negative Emotionality and Authoritarian Parenting*

Children with high emotional reactivity need to develop better coping strategies to regulate their emotions or emotionally driven behavior. It follows that they would benefit more from parental behavior that facilitate them to widen their coping strategies repertoire or refine their coping skills. By the same token, these children will also suffer more when parental behavior exacerbates their emotional reactions. On the other hand, some researchers suggest that parenting behavior may be a

function of children's characteristics (Keller & Bell, 1979; Lengua & Kovacs, 2005).

For example, Eisenberg and Fabes (1994) found that mothers' reports of their responses to children's expression of negative emotions were related to their perception of the children's temperament, and Chang et al. (2003) suggested that children's negative emotionality may be the trigger for authoritarian parenting.

Therefore, the present study also examined whether children's negative emotionality has positive effects on mothers' adoption of an authoritarian parenting style.

### *The Current Study*

A major task of first and second grade children is to adjust to the new challenges of elementary school (Zhou et al., 2004). Chan and Wong (2004) observe that the transition from preschool to elementary school taxes both children's emotion coping skills and social competence. Children have to learn to make new friends, face greater academic demands and learn to abide by school rules and regulations. These new challenges can lead to frustration, anger, anxiety and fear. At the same time, the role of teachers in handling children's emotions and solving social conflicts reduces once children transit from preschool to elementary school (Chan & Wong). Failure to cope with these emotions may result in children's aggressive behavior. Therefore, it is important to examine school children's coping strategies and aggressive behavior. Such studies are especially important in the Chinese classroom, where great emphasis is placed on controlling negative emotions so that a harmonious learning environment for all students can be maintained (Zhou et al., 2004).

Based on the discussion above, we proposed the following hypotheses:

1. Maternal authoritarian parenting, children's negative emotionality and children's coping strategies have direct and independent effects on children's aggressive behavior.

2. Children's negative emotionality predicts maternal authoritarian parenting directly.
3. Children's coping strategies mediate the effects of maternal authoritarian parenting and children's coping strategies on children's aggressive behavior.

The model of children's aggressive behavior that comprises these hypotheses is shown in Figure 1, which also depicts the results obtained from structural equation modeling.

## Method

### *Participants*

The data for this study were drawn from a larger project on emotion socialization patterns of Chinese mothers (Chan, Bowes, & Wyver, in press). Fabes et al. (1999) commented that most studies on the relations between children's emotionality and social behavior had data of both variables reported by the same reporter. To avoid this bias, the participants of the present study included both mothers and teachers of 185 Hong Kong resident Chinese children (90 girls, 95 boys). The age of the children ranged from six to eight years, with a mean age of 7.14 years ( $SD = .72$ ). The mothers were recruited from 16 primary schools attended by their child, through the school principal or the chairperson of the parent-teacher association of the school. An information letter explaining the aims and methods of the study was sent to the mothers and those who agreed to participate returned a consent form. Over 90% of participating mothers (91.9%) in the sample were aged from 30 to 44. Only 3.8% of mothers were younger than 30 years and 4.3% were aged 45 or older. The sample was mainly high-school educated (81.1%). For the rest, 19 (10.3%) had primary school education level or below, and 16 (8.6%) had post secondary education level. All the mothers were of Chinese origin, literate in Chinese and spoke Cantonese at home.

### *Data Collection*

The data on authoritarian parenting, children's negative emotionality and their adoption of negative emotion coping strategies were collected through face-to-face meetings held with groups of mothers at their children's school. The group size varied from 4 to 16 at each school, depending on the number of mothers who returned consent forms and participated in the interview. The researcher, who is a native speaker of Cantonese, explained the purposes of the study again and reminded the mothers to answer all of the questions with reference to the child through whom they were recruited. The researcher then explained the rating scales to the mothers at the beginning of the session and read the items aloud one by one. The mothers provided individual responses on their copy of the questionnaire. The small groups allowed the researcher to clarify any questions raised by the participants about the items.

The English, Chinese or Social Studies teacher of the child completed the questionnaire on the child's aggressive behavior at school. It was expected that these teachers would have had more contact with the child than other teachers would because each of these three subjects took up at least eight lessons per week in Hong Kong primary schools.

### *Measures*

*Children's aggressive behavior at school.* To avoid the kind of reporter bias pointed out by Eisenberg, Champion, and Ma (2004), children's aggressive behavior was rated by their teachers instead of their parents, with eight items for measuring children's aggressive behavior adopted from the Teacher Checklist on children's social competence (Coie, Terry, Dodge, & Underwood, 1993). A sample item is "This child says mean things to peers, such as teasing or name calling." The Cronbach alpha of the items was .90 in the present study. The items were rated on a 6-point scale,

ranging from 1 (*never*) to 6 (*always*).

*Authoritarian parenting.* Authoritarian parenting was measured by the Authoritarian subscales of the Parental Behaviors Questionnaire (PBQ) developed by Robinson et al. (1995). The short form (Russell, Hart, Robinson, & Olsen, 2003) was used in the present study. The instrument has been found to be a valid and reliable measure of Chinese parenting (Chen & Luster, 2002; Wu et al., 2002). The Chinese version translated by Chen and Luster (2002) was used in the present study. The authoritarian subscale consists of 11 items (e.g., “Shoves child when the child is disobedient”). The items were rated on a 6-point scale, ranging from 1 (*never*) to 6 (*always*). The internal consistency of the scale was .79 in the present study.

*Children's coping strategies.* Following the studies of Eisenberg and colleagues (Eisenberg et al., 1993; Eisenberg, Fabes, Shepard, et al., 1997), items from the checklist of Ayers et al. (1990) were adopted to measure children's coping strategies. Children's coping strategies were assessed in two ways: global ratings of the use of various types of coping in stressful situations in general, and ratings of coping in one scenario involving social conflict. For the global ratings, mothers were asked to rate on a 6-point scale the likelihood that their child would engage in each of three general types of coping behavior when confronted with a problem situation: (a) emotional intervention (e.g., crying to elicit assistance from others to help solve the problem); (b) instrumental aggression (e.g., solving the problem by physical or verbal aggression); and (c) emotional aggression (e.g., using physical or verbal aggression to release pent-up feelings). The aforementioned definitions were explained to mothers with examples.

In addition to the global ratings, mothers were presented with a scenario of an everyday conflict (“When this child is hurt or angry because other children at school

made fun of him/her, this child is likely to...”) and were asked to rate the likelihood of their child responding in each of the three ways mentioned above; however, this time, concrete behavior instead of definitions was given for rating.

The global and scenario ratings were averaged to give measures of the children's adoption of each of the three coping strategies. This method of assessment has been used in studies on of children's emotion regulation and was found to have good reliability (Eisenberg et al., 1993; Eisenberg , Fabes, Nyman, et al., 1994).

*Negative emotionality.* Children's emotionality was reported by their mothers, who rated their child's negative emotional intensity and dispositional negative affectivity.

Negative emotional intensity was measured by a scale adapted by Eisenberg et al. (1993; Eisenberg, Fabes, Nyman, et al., 1994; Eisenberg, Fabes, & Murphy, 1996) and Jones et al. (2002) from the Affect Intensity Measure of Larsen and Diener (1987). Mothers were asked to rate their child's negative emotional intensity with five items from 1 (*very untrue*) to 6 (*very true*) (e.g., “When my child gets angry, it is easy for him/her to still be rational and not overreact”). In the present study, the Cronbach alpha of the scale was .58.

Dispositional negative affectivity was measured by six items adopted from the Positive and Negative Affect Schedule (PANAS) (Watson, Clark, & Tellegen, 1988). This scale measures the frequency with which children experience a certain emotion. Mothers were asked to report “how this child feels on average” on a 6-point scale ranging from 1 (*not at all*) to 6 (*extremely*) for three internal negative emotions (upset, afraid, nervous) and three external negative emotions (hostile, irritated, angry). In the present study, the Cronbach alpha was .69 for both the internalized and externalized negative affect.

The items used to measure children's aggressive behavior, coping strategies and negative emotionality were all adopted from studies conducted by Eisenberg and colleagues. The items were translated from English to Chinese and back translated into English by two Chinese psychology lecturers who have experience in teaching psychology in both English and Chinese.

#### *Plan for Data Analysis*

Preliminary analysis was conducted to find out descriptive data of the study and correlation among variables.

The hypotheses were tested simultaneously by conducting structural equation modeling to build a model of children's aggressive behavior. As suggested by Chang, Li, Li, and Liu (2005) and MacCallum, Widaman, Zhang, and Hong (1999), the items were combined into composite scores to achieve an acceptable sample-size-to-item ratio. This method has been shown to have satisfactory statistical properties and is widely used in structural equation modeling studies (Bandalos & Finney, 2001, Chang et al., 2005). For children's negative emotionality, scores on items on intensity of negative emotionality, frequency of negative internal affects and frequency of negative external affects were averaged separately to form three indicators. Items of emotional intervention strategies, instrumental aggression strategies and emotional aggression strategies were also averaged separately to form three composite scores of children's negative coping strategies. For children's aggressive behavior at school and mothers' adoption of an authoritarian parenting style, three to four items were randomly combined to form composite scores. After parceling, each variable was represented by three composite scores.

#### Results

The means, standard deviations and correlation coefficients among the variables

are reported in Table 1. The means of the aggressive behavior items were below the midpoint ( $M = 2.28$ ,  $SD = .93$ ). This indicates that according to their teachers, the children in the present study did not exhibit aggressive behavior at school very often. The mean of children's negative coping strategies ( $M = 3.10$ ,  $SD = .96$ ) was around the midpoint. In other words, some children in the present study did not display aggressive behavior as often as they used negative coping strategies. The means of children's negative emotionality ( $M = 3.66$ ,  $SD = .64$ ) and mothers' adoption of an authoritarian parenting style ( $M = 3.43$ ,  $SD = .68$ ) as reported by mothers were both around the midpoint.

[Insert Table 1 about here]

The correlation coefficients indicate that authoritarian parenting was significantly and positively correlated with children's negative emotion coping strategies,  $r(185) = .29$ ,  $p < .001$ , and aggressive behavior at school,  $r(185) = .24$ ,  $p < .01$ , but was not correlated with children's negative emotionality,  $r(185) = .03$ ,  $p = .673$ . Children's aggressive behavior was significantly and positively correlated with children's negative emotionality,  $r(185) = .17$ ,  $p = .02$  and negative coping strategies,  $r(185) = .34$ ,  $p < .001$ .

The results of structural equation modeling are presented in Figure 1. To facilitate interpretation, the standard scores are presented in the figure. The goodness of fit indexes support a good fit model,  $X^2(48, N = 185) = 82.98$ ,  $df = 48$ ,  $p < .001$ , CFI = .96, TLI (IFI) = .95, IFI = .96, RMSEA = .063). Although the chi square is significant, the model is supported by other indexes, and the chi square/degrees of freedom ratio (1.73) indicates that the model is valid (Byrne, 2001; Chang et al., 2003).

[Insert Figure 1 about here]



The model shows that children's negative emotionality was not a predictor of mother's adoption of an authoritarian parenting style ( $\beta = .11, p = .27$ ). Neither authoritarian parenting ( $\beta = .15, p = .08$ ) nor children's negative emotionality ( $\beta = .05, p = .67$ ) had a significant effect on children's aggressive behavior at school. Rather, both were significant predictors of children's adoption of negative coping strategies (authoritarian parenting,  $\beta = .27, p < .001$ ; negative emotionality,  $\beta = .57, p < .001$ ). Furthermore, children's adoption of negative coping strategies was a significant predictor of children's aggressive behavior at school ( $\beta = .34, p = .006$ ). The results provide evidence that the effects of authoritarian parenting and children's negative emotionality on aggressive behavior at school were mediated by children's adoption of negative emotion coping strategies.

### Discussion

Although Fung and Tsang (2006) reported that aggression is becoming a problem in primary schools in Hong Kong and mainland China, according to the teachers' report in the present study, aggression is not a serious problem among the early graders in the present study. Nevertheless, teachers in Chinese classrooms emphasize socially appropriate behavior (Zhou et al., 2004). Children who display aggressive behavior, even infrequently, may face strong social disapproval from both their teachers and peers. It is important therefore to find effective ways to help these children.

Findings of the present study replicated the results in previous studies with Chinese parents that authoritarian parenting is related to children's aggressive behavior. The relationship found between authoritarian parenting and children's aggressive behavior helps to extend the knowledge of the effects of authoritarian parenting on Chinese young children. Some researchers (e.g., Chao, 1994) claim that

authoritarian parenting may not have the same meaning among Chinese children as it does among Western children, and that the detrimental effects of authoritarian parenting found in Western societies may not be found among Chinese children. The present study found that the damaging effects of authoritarian parenting are mediated by children's negative coping strategies, which suggests that the detrimental effects of authoritarian parenting may be universal and that an authoritarian parenting style is relevant to the development of aggressive behavior in Chinese young children. Hence, the present study has shed light on the debate on unique versus common process regarding the influences of authoritarian parenting, and the results support the common process view.

The current study extends the knowledge on children's aggressive behavior and negative parenting by examining the mediating role of coping strategies on the relationship between the two. A mediation model was established. In the model, children's negative emotionality had no predictive power over their aggressive behavior or authoritarian parenting; thus ruled out the possibility that children's negative emotionality is the common factor affecting their aggressive behavior and authoritarian parenting.

In the model emerged from the results, the effect of authoritarian parenting on children's aggressive behavior was mediated by children's negative coping strategies. Results showed that the more authoritarian were the mothers, the more likely were their children to adopt negative coping strategies. The negative effects of authoritarian parenting on children's coping strategies may be explained by a process of social learning process. Authoritarian parents solve disciplinary problems by coercion, physical punishment and verbal reprimands. They are less likely to explain to their children the reasons behind their demands or punishment (Robinson et al., 1995).

Quite the reverse, the authoritarian parent, whose negative emotion is likely to be maintained at a high level, may only be able to provide a model of dysfunctional coping strategies such as physical coercion or verbal hostility for the child. Through symbolic modeling, children may form a social cognition or working model of how social conflicts can be solved by aggression (Mize et al., 2000). In other words, parents become their children's role models, and children transfer the strategies they have learned from their parents to the school context and adopt instrumental or emotional aggression strategies when they are frustrated or angry at school.

Authoritarian parents are also characterized by frequent expression of anger (Robinson et al., 1995). Under authoritarian parenting, children's emotion arousal level may be maintained at too high a level for the child to learn constructive ways of handling their emotions (Eisenberg et al., 1998; Garner & Estep, 2001). This factor interacts with children's negative emotionality discussed below.

Previous studies have found that negative emotionality and negative coping strategies, have independent and additive effects on children's aggressive behavior (e.g., Eisenberg et al., 1993; Eisenberg, Fabes, Shepard, et al., 1997). The present study adds new knowledge by examining the direct effects of children's negative emotionality and negative coping strategies on their aggressive behavior as well as coping strategy's role as a mediator between the relationship between authoritarian parenting and children's aggressive behavior.

Children's negative emotionality was found to have no direct effects on their aggressive behavior. Rather, the effects were mediated by children's negative coping strategies, namely, emotional intervention, emotional aggression and instrumental aggression. The results help to clarify how negative emotionality is associated with aggressive behavior. High negative emotionality can impede children's coping ability

in two ways. According to Eisenberg, Fabes, Murphy, et al. (1994), children with high negative emotionality tend to focus on themselves and be self-concerned. Then, it is likely that they become overwhelmed by their own emotions, and pay little or no attention to other people and their environment. As a result, they are less likely to learn from their parents when they are being punished or reprimanded by the authoritarian parent.

Blair (2002) offers another explanation from the cognitive viewpoint: high emotional responses hamper children's ability to exercise reflective planning and problem solving. As a result, these skills are underdeveloped, which may partly explain why children with high emotionality cannot apply effective or appropriate problem-focused coping strategies. These arguments imply that it is not likely that children with high negative emotionality will adopt constructive coping strategies such as instrumental coping or cognitive restructuring.

Neither is it likely that young children with high emotionality will adopt avoidance coping to release or modulate their emotions. As children with high negative emotionality experience strong negative emotions, avoidance coping strategies may not be able to help them release their emotions. In addition, it is not easy for school children to physically avoid others in the school setting. Finally, the cognitive abilities of early graders may limit their capacity to adopt cognitive avoidance strategies (Eisenberg, Fabes, & Guthrie, 1997). Compared to avoidant coping strategies, emotional aggression is a more effective and faster way to release strong emotions.

When children with high emotionality fail to regulate their strong emotions using emotion-focused strategies, they have to employ problem-focused strategies to manipulate the elicitors of their negative emotions (Eisenberg, Fabes, & Guthrie,

1997). Neither emotional intervention nor instrumental aggression requires high cognitive skills or abilities. These strategies are easily employed by early graders, who are limited by their cognitive abilities and occupied by strong emotions. Instrumental aggression is an immediate solution to an emotion-eliciting problem. An emotional intervention strategy is an easy way for these children to get their teacher to intervene in a classroom setting with many students. In Hong Kong, it is likely that teachers of early graders will try to tackle the problem for students so that the lesson can be conducted smoothly; hence, teacher responses may reinforce the adoption of this inappropriate coping strategy.

The finding of a positive relation between negative coping strategies and aggressive behavior replicates previous findings that negative coping strategies, such as aggressive coping, are associated negatively with appropriate social behavior (Losoya et al., 1998) and positively with problem behavior (Eisenberg et al., 1995).

The present study found that children's coping strategy was an important factor in the development of aggressive behavior. Although authoritarian parenting had no direct effect on children's aggressive behavior displayed at school, parents, as the primary socializing agent of young children, exert strong influence on children's learning of coping strategies, which are transferred to social interactions. Parental guidance is particularly important for children with high negative emotionality to help them develop constructive ways of coping with their emotions.

#### *Limitations of the Study and Suggestions for Future Research*

The present study has tried to avoid reporter bias by collecting data of children's aggression from a source and context which were different from those of children's negative emotionality and negative coping strategies. However, the data were reported by mothers and teachers but not children or their peers. Future studies could

supplement these reports by collecting data from children. Studying children's perception helps us to better understand how children's appraisal process affects their behavior so that we are in a better position to help them. Data collected from peers who are partners in children's interactions would also provide useful information for understanding children's socio-emotional competence. Generalized from the effect of authoritarian parenting, it is possible that the negative emotional climate of a classroom may interact with children's emotionality and affect children's coping strategies and social functioning. Disciplinary style of teachers is likely to be a correlate of children's coping strategies. These observations provide directions for future studies on children's aggressive behavior at school.

Another limitation of the current study is the low internal consistency of the Affect Intensity Measure and the Positive and Negative Affect Schedule in the present study. Scenario-based items which are more concrete may help mothers reflect on their children's emotionality more objectively. Since Chinese culture discourage the display of negative emotions (Ho, 1986), Chinese parents' perception of children's emotionality may be different from their Western counterpart's. It is worth establishing the validity and reliability of these measuring instruments with Chinese parents and children.

#### *Implications for School Teachers*

The findings of the present study have positive implications for school personnel. It is found that the negative effects of authoritarian parenting and children's negative emotionality on children's aggressive behavior are mediated by children's negative coping strategies. Although it is not easy for school personnel to change parents' parenting styles and children's emotionality, they can teach children positive or constructive coping strategies. Since children may not be able to learn these coping

strategies at home because of the authoritarian parenting style of their parents, teachers and school counselors can play a very important role in helping children to deal with their emotions.

The results show that intervention measures need to be tailored to cater to the attributes of children. Teachers, school social workers and/or school counselors need to identify the children who are most likely to develop aggressive behavior so that resources can be allocated to those who need them most. Negative emotionality is a significant factor affecting children's adoption of negative emotion coping strategies. School personnel need to pay more attention to children who are high in negative emotionality. Emotionality cannot be changed over a short period of time. Therefore, these children need to learn effective coping strategies. However, many emotion-regulating skills taught by school counselors such as counting to ten, walking away or displacing negative emotions in harmless ways may not be effective among these children. These micro-skills are emotion-focused skills that aim to subside the strong emotion after it is aroused. For children with high negative emotionality, these methods may not dissipate but rather escalate their negative emotions because the child may still dwell on the emotion-eliciting stimulus or the provoker even in their absence (Watson & Clark, 1984). Most likely, the child will resort to releasing the negative emotion in his/her habitual ways. Tattling to authorities is another strategy always encouraged by Chinese teachers of young children. However, children who always complain to teachers are likely to be ostracized and isolated by their peers.

Teachers or social workers should try to broaden the repertoire of coping strategies of children with high emotionality. Antecedent-focused emotion regulation skills such as cognitive restructuring may be effective for these children. Helping a child to modify his/her habitual pattern of appraisal of events can help the child not to

be so easily provoked. For example, teachers can help the child to put the problem in perspective and develop a positive reinterpretation (Power, 2004), or teach the child that forgiving others is a sign of social maturity that is praised by adults. This way of thinking is particularly promoted by Chinese parents who emphasize other-focused emotions. Releasing negative emotions by verbal means is another effective strategy. Expressing his/her anger or frustration helps a child release strong negative emotions (Greenberg, Kusche, Cook, & Quamma, 1995). Teachers can also help children to expand their vocabulary of emotions, and encourage them to solve problems by verbal means rather than through aggressive behavior. In addition, verbal strategies raise the child's awareness of his or her own emotions as well as releasing them.

School personnel could also consider incorporating topics about how children's coping strategies are related to their emotionality and social competence into parent education programs. Raising the awareness of parents of their influence on children's coping strategies and reminding parents to adopt age- and cognition-appropriate language and explanations in handling their children's emotions and aggressive behavior would help both parents and children (Power, 2004).



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#### Note on author

Siu Mui Chan is lecturer in Department of Educational Psychology, Counseling and Learning Needs, Hong Kong Institute of Education, Hong Kong.

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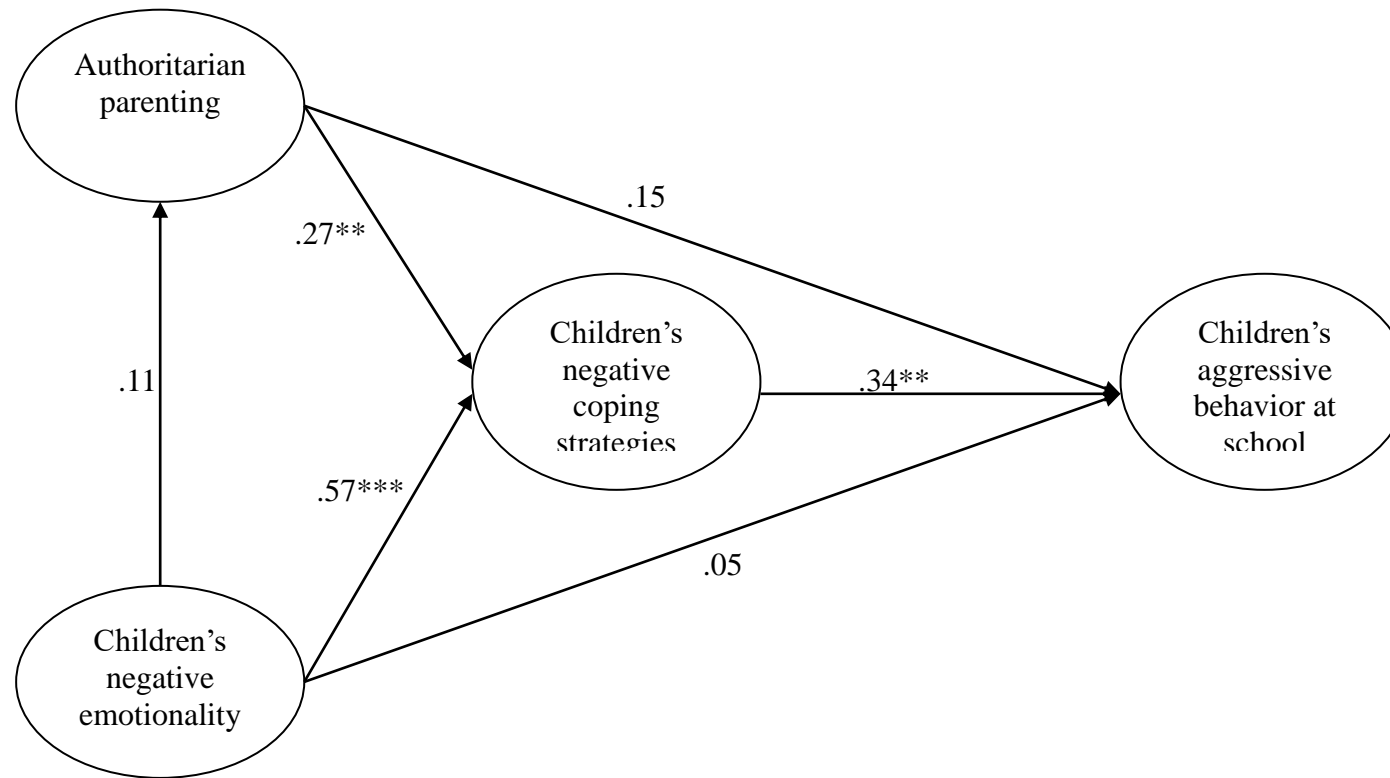


Figure 1. Results of Structural Equation Modeling of Children's Aggressive Behavior Predicted by Authoritarian Parenting, Children's Negative Emotionality and Negative Coping Strategies.

Note: \*\* and \*\*\* represent significance at the 1% and 0.01% level, respectively.

Table 1. Means, Standard Deviations and Correlation Coefficients of Aggressive Behavior, Authoritarian Parenting, Negative Emotionality and Negative Coping Strategies

	1	2	3	4
1. Children's aggressive behavior	1			
2. Mothers' adoption of authoritarian parenting	.24**	1		
3. Children's negative emotionality	.17**	.03	1	
4. Children's adoption of negative coping strategies	.34***	.29***	.35***	1
Mean ( $N = 185$ )	2.28	3.43	3.66	3.10
<i>SD</i>	.93	.68	.64	.96

Note: \*, \*\*, and \*\*\* indicate significance at the 5%, 1%, and 0.01% level, respectively.