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Chapter 6

TEMPERAMENT, SELF-REGULATION, AND SCHOOL ADJUSTMENT IN ASIAN AMERICAN CHILDREN

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Asian Americans have often been referred to as “model minorities” in the United States because they have been perceived as having achieved greater success than most other ethnic minority groups and sometimes even white Americans. In particular, Asian Americans have been stereotyped as high- or overachievers academically. However, this stereotype ignores the fact that there is often a bimodal distribution in Asian American students’ achievement (Kao, 1995). Furthermore, school success is primarily defined by grades or degree attainment and obscures the fact that pressures associated with the model minority stereotype may place Asian American children at significant risk for social, emotional, and behavioral problems at school (Ying, et al., 2001). This chapter will discuss school adjustment in the context of the model minority myth and acculturation as culturally relevant factors for Asian American children. Research has shown that effortful control is an intra-individual or temperamental factor that promotes achievement and protects against school maladjustment, and we review this literature and highlight its relevance for Asian American children’s schooling outcomes. In addition, we discuss the role of parenting in Asian American children’s self-regulation and school adjustment. This chapter will conclude

with implications for fostering academic resilience in Asian American children and working with their families in culturally sensitive ways.

Predicted to increase from approximately 5 percent to 9 percent of the U.S. population by 2050 (U.S. Census Bureau, 2008), Asian Americans represent one of the fastest-growing ethnic groups in the United States. Relative to other ethnic minority groups, Asian Americans may not represent the highest proportion of ethnic minority. Yet they often represent the highest proportion of high academic achievers in the United States. For example, Asian Americans are “overrepresented” among the top performers as indicated by high school grade point averages (GPAs) as well as standardized tests such as the Scholastic Aptitude Test, the Graduate Management Admissions Test, and the Graduate Record Examination test (Kao & Thompson, 2003; Thatchenkery & Cheng, 1997).

Even though statistics from GPAs and standardized tests may reinforce the stereotype that Asian Americans are model minorities, such statistics do not account for the fact that the Asian American population is a highly heterogeneous group. From a historical perspective, the term “Asian American” was constructed and used only after the 1960s, and the people that are included in this term have become increasingly diverse since then (Chan & Hune, 1995; Oyserman & Sakamoto, 1997). “Asian Americans” as an ethnic group encompasses more than 20 ethnic subgroups, each of which with their own cultural, linguistic, religious, and historical backgrounds (Leong & Lau, 2001). In the 1970s, Asian Americans primarily consisted of individuals from Chinese, Japanese, or Filipino backgrounds. By the 1990s, these three ethnic groups made up only a little more than half (approximately 57 percent) of all Asian Americans. The other portion of the Asian American population includes ethnic groups often labeled “Southeast Asians” (e.g., Vietnamese, Cambodian, and Laotian), Asian Indians, and Koreans (Chen & Hune, 1995; Cho, 1997). Because a substantial portion of Asian Americans are immigrants, some parents of Asian American children arrived in the United States with high levels of educational attainment and job skills, while others were relatively disadvantaged (Kao, 1995). Thus, the notion of Asian Americans as “model minorities” ignores the diversity among group members and the fact that many Asian Americans may have low socioeconomic status and could be underachieving and undereducated relative to other ethnic minority groups (Kao & Thompson, 2003).

Since Asian Americans are perceived as being the hard-working, resilient, and high-achieving “model minority,” they are also perceived to be less prone to mental health problems. In fact, earlier researchers thought that their extremely low rates of utilization of mental health services reflected

lower rates of psychopathology (Lin & Cheung, 1999). However, when Asian clients or patients were examined more closely, their conditions were significantly more severe and chronic and required more intensive treatment and longer care than patients of other races (Lin & Cheung, 1999). This is still the case today; compared to other ethnic groups, Asian Americans have the lowest utilization rate for mental health services and are more likely to present with severe mental health diagnoses (Zhang, Snowden, & Sue, 1998; Uba, 2003).

SCHOOL ADJUSTMENT AS MULTI-DIMENSIONAL

Despite being a fast-growing and heterogeneous ethnic group in the United States, there are relatively few systematic studies on the school adjustment of Asian American children. School adjustment has historically been conceptualized in terms of academic learning or achievement such as reading or mathematics. However, educators and researchers increasingly acknowledge that school adjustment pertains not only to functioning in the academic domain, but also the social-emotional and behavioral domains (Perry & Weinstein, 1998). Thus, children's attitudes and liking of school, academic motivation and engagement, and relationships with peers and teachers are important factors to consider as part of children's school adjustment (Birch & Ladd, 1996; Ladd & Price, 1987).

It is a common misperception that Asian Americans in general must be well adjusted in school since they have high rates of high school graduation and college completion (Lee, 1996). However, as previously highlighted, the statistics on Asian Americans' academic achievement may be misleading if ethnic group differences are not examined. In fact, the few studies that do examine school adjustment among Asian American ethnic groups have found that there are ethnic group differences between achievement and school adjustment (Eng, et al., 2008), and we describe such differences in the following sections. Furthermore, research has shown that cultural values and the acculturation process have a significant relationship to achievement and adjustment (Zhou, Peverly, Xin, Huang, & Wang, 2003).

Academic domain. School adjustment occurs in three primary domains: academic, social, and behavioral (Perry & Weinstein, 1998). Cultural values and the acculturation process have an influence on Asian American children's adjustment in each of the three domains. The academic domain, which consists of academic achievement and motivation, is a common area of focus for Asian American child research and the media (Eng, et al., 2008). Scholars suggest that the model-minority stereotype and assumption of group homogeneity detracts researchers from examining within group

ethnic differences that can provide insight to school adjustment of Asian American children (Castillo & Phommarath, 2006; Park, Goodwin, & Lee, 2003). However, when ethnic group differences are examined, the impact of cultural value and acculturation on adjustment is clear. For instance, Eng, et al. (2008) conducted a study on school achievement differences among Chinese and Filipino American adolescents. Using the National Longitudinal Study for Adolescent Health (ADD Health) data, the study found that Chinese American adolescents had greater academic achievement than Filipino American adolescents. Acculturation, the process of adopting the values, beliefs, and behaviors of another group, also had a significant impact on academic performance. Results of the study indicated that acculturation was a negative predictor of school achievement for Filipino American participants but not for Chinese American participants. That is, Filipino American adolescents who adopted cultural behaviors and values of the United States reported poorer academic achievement. Eng explains the findings by examining cultural differences between Chinese and Filipino cultures. Chinese and Filipino Americans share common cultural values such as collectivism, but they also have different cultural and historical backgrounds that may influence the level of resistance to acculturate to U.S. cultural values. For instance, due to Spanish colonization, many Filipinos have been exposed to Western cultures that are similar to U.S. culture. Furthermore, English is primarily used in schools in the Philippines, which makes assimilation to U.S. culture easier. Conversely, Chinese individuals may not have as much exposure to Western culture and have limited knowledge of English, thus making it difficult to acculturate to U.S. cultural norms.

Social domain. The model-minority stereotype, as well as misunderstanding of cultural norms, can also negatively impact school adjustment, particularly in the social domain (Lee, 1996; Lee & Koro-Ljungberg, 2007). The social domain consists of the quality of peer and adult relationships. Differences in cultural norms and expectations can often lead to misunderstandings that in turn influence the quality of peer and adult relationships with those who are unfamiliar with Asian culture. For instance, many Chinese children are taught to be formal in their relationships with authority figures in schools (e.g., teachers and principals) and that being silently attentive in class is a sign of respect for the teachers (Zhou, et al., 2003). However, in the United States, assertiveness and verbal interactions in class are valued and sometimes expected by teachers. When teachers do not take cultural backgrounds into account, Asian American children may be labeled as reserved, shy, and inhibited. In their study of Chinese American and European American adolescents, Zhou and colleagues (2003) found

that feelings toward teacher (e.g., respect and regard for authority figures) were significantly related to levels of stress primarily for Chinese American students.

Quality of peer relationships also has a significant impact on Asian American adolescents (Qin, Way, & Rana, 2008; Rosenbloom & Way, 2004). Research suggests that negative peer relationships can impact school performance and are associated with externalizing and internalizing problems (Rubin, Coplan, Nelson, Cheah, & Lagace-Seguin, 1999). For instance, Zhou, et al. (2003) found that Chinese American adolescents reported more stress in interpersonal relationships and felt excluded from social activities in comparison to their European American counterparts. Lack of acculturation can exacerbate problems in peer relationships. For instance, Lee & Koro-Ljunberg (2007) examined the experience of Korean adolescents who were attending U.S. schools for the first time. In their qualitative study, they found that all participants were bullied and teased by other students. Their lack of English proficiency led to name calling and being left out of group activities. One participant described her anguish when she stated, "I cried at home many times when it was time to begin the school" (p. 104).

Behavioral domain. Lack of school adjustment in the academic and social domains can ultimately lead to problems in the behavioral domain. The behavioral domain consists of externalized (e.g., anger, frustration, and fear) and internalized (e.g., sadness, anxiety, and shame) distress. However, public display of emotion is customarily viewed as undesirable in the Asian culture, and disclosing one's problems to another may be experienced as a loss of face for the self and the family. Therefore, Asian American children may not always readily verbalize or express their emotions even if they are under stress or distress. Instead, stress or distress experienced by Asian American children or adolescents may be somaticized (Chun, Enomoto, & Sue, 1996) as complaints of sleeplessness, loss of appetite, and stomach pains (Yagi & Oh, 1995). Negative emotions associated with anxiety, stress, or distress may also be externalized. For example, Yagi & Oh (1995) suggest that anxiety and stress may be manifested in maladaptive or destructive ways, such as aggressive behavior, alcohol or drug use, and risky or illegal activities. Scholars suggest that the model-minority stereotype exacerbates internalizing or externalizing problems for Asian American children, particularly for those who do not fit the stereotype (Lee, 1996). Furthermore, cultural expectations can also place pressure on Asian American children. For instance, during childhood, bringing honor to the family is often fulfilled through academic achievement (Seráfica, 1990). When not performing well academically, Asian American children

may view it as bringing dishonor to, and a loss of face for, their family (Castillo & Phoummarath, 2006). This can be particularly devastating for children whose parents sacrificed everything in their native country for them to have educational opportunities in the United States (Zhou, et al., 2003).

EFFORTFUL CONTROL AND SCHOOL ADJUSTMENT

From a bioecological perspective, children's school adjustment can be viewed as a cumulative function of current and earlier child and environmental (e.g., familial, peer, and communal) influences (Bronfenbrenner & Morris, 2006; Rivkin, Hanushek, & Kain, 2005). The next sections will focus on children's self-regulation as an intra-individual resource that may protect against school maladjustment or promote academic resilience, learning, and adjustment at school. In addition, parenting will be discussed as an extra-individual resource in Asian American children's school performance and adjustment.

Although there are diverse opinions on the types of skills children need to be academically and socially successful at school, empirical evidence increasingly points to self-regulatory skills as important prerequisites for school readiness, achievement, and social or behavioral adjustment (Bierman, et al., 2008; Blair, 2002; Payton, et al., 2008; Raver & Knitzer, 2002). School readiness is a concept about whether children enter formal learning environments with the developmental capacities and preparedness to learn and to be taught (Bierman, et al., 2008; Denham, 2006). Self-regulation has been defined as "the internally directed capacity to regulate affect, attention, and behavior to respond effectively to both internal and environmental demands" (Raffaelli, Crockett, & Shen, 2005, p. 54–55). Examples of self-regulatory abilities or skills include being able to plan ahead, resist distractions, and be goal-oriented (Rothbart, Ellis, Rueda, & Posner, 2003).

TEMPERAMENT AND EFFORTFUL CONTROL

In early childhood research, self-regulation has often been conceptualized as being part of the temperament system (Eisenberg, et al., 1995; Liew, McTigue, Barrois, & Hughes, 2008; Posner & Rothbart, 2000). Temperament refers to early and stable individual differences in emotional, attentional, and behavioral predispositions toward acting and reacting (Derryberry & Rothbart, 1997). Thus, temperament has been viewed as inborn qualities or the basic building blocks that provide the developmental foundations

for complex social-emotional and motor behaviors, personality, adaptation, and adjustment or psychopathology (Rothbart & Bates, 2006).

Effortful control has been identified as a prominent aspect of temperamental self-regulation. Effortful control refers to the volitional aspect of self-regulation, and is defined as the ability to voluntarily inhibit a dominant attentional or behavioral response to activate a subdominant response (Rothbart & Bates, 2006). Thus, effortful control involves self-control over attention and behavior. As such, effortful control is often demonstrated through self-control over behavior, but executive functioning is also intimately linked to effortful control (Sheese, Rothbart, Posner, White, & Fraundorf, 2008). For example, children would demonstrate effortful control by doing something they need to do over something they prefer to do, such as focusing attention and studying for an exam rather than looking through the window at friends playing outside and then joining them to play.

The need for children to exert effortful control becomes evident as early as preschool or kindergarten when teachers request children to pay attention, lower their voices, or wait and line up before going to the playground. As children transition into grade school, capacities for effortful control become increasingly important for learning and achievement as children are expected to remain seated and pay attention to academic lessons for extended durations. Furthermore, the need for effortful control extends beyond the academic domain into the social and behavioral domains of school adjustment, because children with emotional, attentional, or behavioral difficulties may experience poor social relationships with peers or teachers (Eisenberg, Hofer, & Vaughan, 2007).

Effortful control and academic achievement. Considering the formal learning environment that many children experience, it is no surprise that children's capacities for effortful control would be important for their learning and achievement. For children as young as kindergartners, nearly half of their school day is spent in structured or teacher-directed instruction (Rimm-Kaufmann, LaParo, Downer, & Pianta, 2005). In structured learning environments, children typically are expected to comply with teachers' requests and classroom rules, to work independently at their desks for extended periods, and to cope effectively with the negative emotions or frustrations. Given such expectations, it is not surprising that children with low levels of effortful control will likely encounter difficulties in their learning and achievement.

A growing body of empirical evidence confirms such a linkage between effortful control and academic achievement in preschool and school-aged children (e.g., Blair & Razza, 2007; Liew, et al., 2008; McClelland, et al., 2007). In a study of preschoolers enrolled in Head Start programs

(designed for low-income children and their families), children's abilities for effortful control contributed to their emergent mathematics and literacy skills (Blair & Razza). Similar results were found in a study with preschoolers from diverse socioeconomic backgrounds (McClelland, et al.). Effortful control continues to play a role in academic achievement throughout the elementary school years. For example, in a longitudinal study of first through third-graders who were predominantly from low-income and ethnic minority families and assessed by their school district as entering first grade with below-average literacy skills, effortful control predicted literacy achievement two years later (Liew, et al.). In middle childhood, effortful control predicted GPAs above any contributions from earlier GPAs and teacher-student relationship quality (Valiente, Lemery-Chalfant, Swanson, & Reiser, 2008).

Although few studies on effortful control and achievement have focused on Asian American children, similar patterns of results have been found in countries other than the United States, which may suggest that effortful control is linked to achievement across multiple cultures. In a longitudinal study of children living in Mainland China, effortful control at first or second grade predicted GPA four years later (Zhou, Main, & Wang, 2010). Interestingly, the prediction of GPA from effortful control was mediated by social competence. Zhou and colleagues speculate that children with high effortful control develop higher social competence, which in turn helps them to secure greater social-emotional and instructional resources for academic achievement. Thus, effortful control may promote skills in the social and behavioral domains of children's school adjustment, which in turn may then promote children's learning and academic achievement.

Effortful control and social functioning. In regards to the social and behavioral domains of children's adjustment, a large body of research shows a linkage between children's effortful control and their social competence. Generally, children with high levels of effortful control exhibit high levels of social skills (Eisenberg, Hofer, & Vaughan, 2007). In studies on preschool and school-aged children, a series of studies have shown that children's abilities to effortfully control their behavior or attention promote social competence, which includes skills such as socially appropriate behaviors, prosocial behavior, and peer acceptance (e.g., Eisenberg, et al., 1995; Liew, Eisenberg, & Reiser, 2004; Fabes, et al., 1999).

The pattern of relations between effortful control and social competence has been found in multiple countries with diverse cultures (Eisenberg, Zhou, Liew, Champion, & Pidada, 2006). For example, effortful control was positively related to peer competence and parent- and teacher-rated social functioning (assessed as a mixture of social skills and low problem

behaviors) in third-graders living in Indonesia (Eisenberg, Pidada, & Liew, 2001). This pattern of findings was replicated with the same group of children three years later (Eisenberg, Liew, & Pidada, 2004). With first and second-graders living in China, Zhou, Eisenberg, Wang, & Reiser (2004) found that high effortful control and low anger/frustration as reported by children's teachers predicted social functioning. Although there has been limited research on Asian Americans' effortful control and social functioning, we would expect that effortful control would play an important role in children's social competence. Regulation of emotions such as anger and frustration may be particularly important in Asian Americans, who typically are oriented toward collectivistic values. In individuals who value collectivism, the experience or public expression of emotions is typically viewed as at odds with the maintenance of interdependent social interaction and social harmony (Markus & Kitayama, 1991).

Effortful control and behavioral problems. While effortful control may promote social competence, there is also evidence indicating that effortful control may protect against behavioral problems. Numerous studies show that children with low levels of effortful control often exhibit behavioral problems (Eisenberg, Hofer, & Vaughan, 2007). Behavioral problems have often been broadly classified into internalizing problems (e.g., intro-punitive emotions or moods) and externalizing problems, such as harmful and disruptive behaviors to others (Olson, Sameroff, Kerr, Lopez, & Wellman, 2005; Zahn-Waxler, Klimes-Dougan, & Slattery, 2000). Yet there is substantial comorbidity between internalizing and externalizing problems, perhaps because both involve underlying problems with self-regulation (Kovacs & Devlin, 1998; Zahn-Waxler, Klimes-Dougan, & Slattery, 2000). Furthermore, behavioral problems and academic underachievement are often comorbid (Hinshaw, 1992).

In a series of studies involving longitudinal samples of school-aged children, Eisenberg and colleagues found a relatively consistent pattern where effortful control predicted low levels of externalizing behavior two and even four years later (e.g., Eisenberg, et al., 2005; Valiente, et al., 2003; Zhou, et al., 2007). Similarly, other researchers have found a negative relation between effortful control skills (e.g., delay of gratification and executive attention) and externalizing problems, including hyperactivity, distractibility, and aggression (Kochanska, Murray, & Harlan, 2000; Krueger, Caspi, Moffitt, White, & Stouthamer-Loeber, 1996). Zhou and colleagues have conducted several studies with children living in China and found similar patterns of results (Eisenberg, et al., 2007; Zhou, et al., 2008; Zhou, Eisenberg, Wang, & Reiser, 2004). In contrast to the consistent inverse relation found for effortful control and externalizing problems, research

findings on the relation between effortful control and internalizing problems have been somewhat mixed. But when relations were found, low effortful control (accompanied by high involuntary, or reactive control, such as impulsivity) tends to be associated with high internalizing problems (Eisenberg, Cumberland, et al., 2001). Even though few studies have focused on Asian American children's effortful control and behavioral problems, there is every reason to expect that effortful control would predict low levels of externalizing problems because emotions and behavior (e.g., anger and aggression) disrupt group harmony (Markus & Kitayama, 1991; Cheah & Rubin, 2004). In Asian cultures, abilities for effortful control of attention and emotional impulses are highly encouraged in children because it not only contributes to children's academic learning, but also helps maintain a harmonious learning environment for others in the group (Zhou, et al., 2004).

In summary, research has shown that effortful control is a temperament or personality characteristic that may protect against school maladjustment by enhancing social competence and reducing behavioral problems. In addition, research has shown that effortful control may promote sustained attention and persistence, which contribute to children's academic resilience, learning, and achievement. In light of the pressures imposed by the model-minority stereotype and the stress associated with the acculturation process, fostering Asian American children's development of self-regulatory capacities such as effortful control may be important in preventing mental health and academic problems.

PARENTING AND THE DEVELOPMENT OF EFFORTFUL CONTROL

Although children are born with certain temperaments and effortful control is considered to have a temperamental basis (Rothbart & Bates, 2006), that does not mean parenting has little influence on children's effortful control. In fact, numerous studies have documented linkages between parenting and children's development of effortful control (Eisenberg, Cumberland, & Spinrad, 1998; Karreman, van Tuijl, van Aken, & Dekovic, 2006). Overall, the research indicates that parents who are supportive and responsive (e.g., who express positive expressivity and warmth) to their children, particularly when children are upset or distressed, have children who exhibit high levels of effortful control, allowing them to maintain an optimal level of arousal rather than to become over-aroused in stressful situations (Carson & Parke, 1996; Carson, Burks, and Parke, 1993; Eisenberg, Gershoff, et al., 2001; Liew, Youngman, Smith, & Thoemmes, in press; Parke & Buriel, 2006).

Parenting Styles

Based on parenting behaviors of primarily European American samples, Baumrind (1971) identified general parenting styles that were associated with different child outcomes. In particular, parents who exhibit high control and high acceptance with their children have been classified as authoritative, and authoritative parents tend to have children who have positive developmental outcomes, including high levels of self-regulation and effortful control (Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994; Steinberg, Mounts, Lamborn, & Dornbusch, 1991; Eisenberg, Zhou, et al., 2005). In contrast, authoritarian parents are those who exhibit high control and low acceptance with their children. Generally, authoritarian parents (particularly those who are punitive and negative) tend to have children who have negative developmental outcomes, including low levels of effortful control (Eisenberg, Gershoff, et al., 2001).

Asian American parenting styles. Since much of the literature on parenting and effortful control has been based on the classic work on parenting styles by Baumrind (1971), empirical understanding of how Asian American parenting styles influence children's self-regulatory abilities is burgeoning but is in its nascent stage. In the parenting literature, Asian immigrant parents have often been classified as being authoritarian (Chao, 1994; Chiu, 1987). Recall that authoritarian parenting has traditionally been found to be associated with negative or punitive parenting and negative developmental outcomes for children. However, in collectivistic societies, authoritarianism and parental negativity may not be linked (Eisenberg, et al., 2009). Some researchers have expressed dissatisfaction with the application of parenting styles, which were developed in a Western context, to Asian American parenting. For instance, Chao (1994) believes that the Chinese terms *guan* (meaning "to govern," as well as "to love" and "to care for") and *jiao xun* ("to train children to be disciplined and hard-working") more accurately capture the essence of Asian American parenting than the traditional meaning of authoritarian parenting. In addition, these indigenous concepts of *guan* and *jiao xun* reflect or exemplify Confucian teachings on role relationships: (1) a person is defined by his or her relationships with others, (2) relationships are structured hierarchically, and (3) social order and harmony are maintained by each party honoring the requirements and responsibilities of the role relationships (Bond & Hwang, 1986).

Parenting styles and effortful control. There has been preliminary evidence of the salience of the training (e.g., *jiao xun*) parenting style. Chao (1994) found that after controlling for Chinese American mothers'

scores on the authoritarian and authoritative scales, the mothers were still higher on the training parenting style than European American mothers. As of yet, few studies have examined the role of this type of parenting on the development of Asian American children's self-regulatory capacities, such as effortful control. In a study on immigrant Chinese mothers and their preschool children, Cheah, Leung, Tahseen, & Schultz (2009) found that authoritative parenting predicted increased children's behavioral and attentional self-regulation abilities. Additionally, Rudy & Grusec (2006) found that directive behavior and strict rules were not associated with low parental warmth and a negative view of the child in mothers from collectivistic backgrounds. Highly directive parenting, which is often seen as characterizing authoritarian parenting, may not impede on children's adjustment in collectivistic cultures, perhaps because this type of parenting is viewed as appropriate and good for the child. Further, Bugental & Grusec (2006) suggest that it is not the high levels of control necessarily, but the punitive aspects of authoritarian parenting that are likely associated with maladjustment in collectivistic cultures. Punitive parenting has been found to be negatively related to children's effortful control and ego resilience in a sample of Chinese first- and second-graders (Eisenberg, Chang, Ma, & Huang, 2009).

Parental involvement and effortful control. In addition to parenting styles, another key aspect of Asian American parenting is parents' level of involvement in their children's education, beginning as early as the preschool years. Relative to European American parents, Asian American parents report greater involvement in teaching their children basic math, reading, and writing skills when they are in preschool (Schneider & Lee, 1990). Although substantial evidence shows that parental involvement is linked to Asian American children's academic performance, and emerging evidence shows that effortful control and academic achievement are related (Zhou, Main, & Wang, 2010), the linkages between parental involvement, children's development of effortful control, and academic achievement are not clearly established for Asian American children. Importantly, parental "over-involvement" and control may have a negative impact on children's adjustment. Hayashino & Chopra (2009) point out that Asian parents tend to use internal rather than external controls to discipline their children. As a result, children are often motivated to obey their parents and do well in school because of a fear of shame, rejection, and guilt placed upon them by their parents.

For Asian Americans, parents' use of control as a form of discipline may be effective in controlling children's behaviors because of the strong internalized values of filial piety and collectivism; however, there has been

limited research on long-term social-emotional consequences of this type of discipline. Of interest is a study by Chao (2009) who found that, relative to European American children, Asian American children feel less anger toward their parents' use of control, but when they do get angry, it has a more negative impact on their adjustment (Chao, 2009). Chao found that parents' use of behavioral and psychological control may have different consequences on the behavioral adjustment of Asian immigrant and European American youth because of the moderating effect of their interpretations (i.e., anger) toward control. In European American samples, feeling anger toward parents' use of psychological control may help youth distance themselves from the negativity associated with their parents' shaming or inducing of guilt and thus is associated with fewer problem behaviors. However, results suggested that for Asian American youth, feeling angry about their parents' controlling behaviors (e.g., parental monitoring) may hurt rather than help them. In Asian cultures, the expression of anger is highly discouraged and seen as inappropriate, which may explain why Asian immigrant youth report lower levels of anger with parental control compared with European American youth. In Asian immigrant youth, as with all youth, psychological control is associated with internalizing symptoms; however, psychological control seems to have less serious consequences for Chinese and Korean immigrants than for European Americans in terms of an association with externalizing behaviors such as drug use. Thus, the influence of parental control on Asian American children's adjustment must be understood in light of Asian cultural values (Chao, 2000). The results of this study, while not pertaining directly to self-regulation and effortful control, suggest that children's interpretations of their parents' directive or controlling behavior moderate the relationship between parenting styles and children's social-emotional and behavioral adjustment.

In summary, the literature on Asian American parenting suggests that some aspects of Asian parenting behaviors support children's development effortful control, while other aspects may hinder its development. While the value of education passed down from parents to children likely plays a role in the children's academic achievement, too much pressure and psychological control may negatively impact children's development of self-regulatory abilities and put them at risk for adjustment problems, such as internalizing symptoms when they do not meet expectations. Because traditional classifications of parenting styles may not readily apply to Asian American parents, there is a need for further research examining the Asian American parenting construct, as well as the relations between Asian American parenting and children's effortful control and adjustment.

In light of the pressures imposed by the model-minority stereotype and the stress associated with the acculturation process, fostering Asian American children's development of self-regulatory capacities such as effortful control may be important in preventing mental health and academic problems.

FOSTERING ACADEMIC RESILIENCE IN ASIAN AMERICANS

Given the notion that education is one of the primary viable avenues for social and economic mobility for Asian Americans in the United States, it should not be surprising that Asian American children and youth are under extreme pressures to achieve academically if they are to be considered "successful." However, it is important to recognize that children's school adjustment includes achievement, social, and behavioral domains. Thus, children's achievement may suffer when their social or behavioral needs are unmet. Because research has shown that effortful control contributes to academic, social, and behavioral functioning, fostering children's development of self-regulatory capacities such as effortful control may be important for academic resilience and school adjustment. In light of the pressures imposed by the model-minority stereotype and the stress associated with the acculturation process, Asian American children may benefit from interventions that enhance their effortful control abilities. For school professionals who are interested in implementing school-based intervention programs or curriculum that promote children's effortful control abilities, one resource that reviews and compares various programs is *Safe and Sound: An Educational Leader's Guide to Evidence-Based Social and Emotional Learning (SEL) Programs* (Collaborative for Academic, Social, and Emotional Learning, 2003). In addition to school-based interventions or curriculum, research has shown that parenting plays a role in the development of children's effortful control. Thus, parents may benefit from learning about parenting practices such as positive expressivity and parental warmth and support with children that research has shown to be parenting behaviors that are associated with children's development of effortful control.

While fostering academic resilience and school adjustment through the development of children's effortful control is important, it is equally vital for mental health professionals in schools to be sensitive to not only the academic, but also the social and behavioral domains of Asian American students' school adjustment. For example, an Asian American student could be doing extremely well academically but suffering from anxiety or depression. Making efforts to establish an emotional connection or

rapport with Asian American students and periodically checking in with them could make it easier for school professionals to detect internalizing or externalizing symptoms regardless of students' academic performance. Furthermore, it is important for mental health and school professionals to be mindful that acculturation differences between parents and children may heighten tension and pressures for Asian American students. Due to the values of filial piety and collectivism, children are often motivated to obey their parents because of a fear of shame and guilt placed upon them by their parents. This may potentially lead to negative short- or long-term emotional consequences for children. Although school professionals need to respect parents' cultural values, it is also important to encourage both parents and students to consider the developmental needs of the whole person (including academic achievement and social-emotional needs) in order for the student to be academically successful and psychologically healthy.

While the model minority myth suggests that Asian American children are problem-free in their school adjustment, the research gives us a balanced view of the self-regulatory (intra-individual) and parental factors that play a role in children's school adjustment. In fact, we see that some factors such as parental control and the value of collectivism can be both helpful and potentially harmful in children's school adjustment. Thus, it is important for researchers, educators, and mental health professionals who work with Asian American children to be aware of their unique risk and protective factors that contribute to their school adjustment. Additionally, there is a clear need for further research in the areas of relations between temperamental self-regulation, parenting, and school adjustment for Asian Americans.

REFERENCES

- Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology Monographs*, 4, 1–103.
- Bierman, K. L., Domitrovich, C. E., Nix, R. L., Gest, S. D., Welsh, J. A., Greenberg, M. T., et al. (2008). Promoting academic and social-emotional school readiness: The Head Start REDI program. *Child Development*, 79, 1802–1817.
- Birch, S. H., & Ladd, G. W. (1997). Children's interpersonal behaviors and the teacher-child relationship. *Developmental Psychology*, 34, 934–946.
- Blair, C. (2002). School readiness: Integrating cognition and emotion in a neurobiological conceptualization of children's functioning at school entry. *American Psychologist*, 57, 111–127.
- Blair, C., & Razza, R. P. (2007). Relating effortful control, executive function, and false belief understanding to emerging math and literacy ability in kindergarten. *Child Development*, 78, 647–663.

- Bond, M. H., & Hwang, K. K. (1986). The social psychology of Chinese people. In M. H. Bond (Ed.), *The psychology of the Chinese people* (pp. 213–264). Hong Kong: Oxford University Press.
- Bronfenbrenner, U., & Morris, P. A. (2006). The ecology of developmental processes. In W. Damon & R. M. Lerner (Series Eds.) & R. M. Lerner (Vol. Ed.), *Handbook of child psychology: Vol. 1: Theoretical models of human development* (6th ed., pp. 793–828). New York: Wiley.
- Bugental, D. B., & Grusec, J. E. (2006). Socialization processes. In N. Eisenberg (Vol. Ed.) & W. Damon & R. L. Lerner (Series Eds.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (pp. 366–428). New York: Wiley.
- Carson, J. L., & Parke, R. D. (1996). Reciprocal negative affect in parent-child interactions and children's peer competency. *Child Development, 67*, 2217–2226.
- Castillo, L. G., & Phoummarath, M. J. (2006). Culturally-competent school counseling with Asian American adolescents. *Journal of School Counseling, 4*(20), 2–19. Retrieved from <http://www.jsc.montana.edu/articles/v4n20.pdf>
- Chan, K. S., & Hune, S. (1995). Racialization and panethnicity: From Asians in American to Asian Americans. In W. D. Hawley and A. W. Jackson (Eds.), *Toward a Common Destiny: Improving Race and Ethnic Relations in American* (pp. 205–233). San Francisco, CA: Jossey-Bass.
- Chao, R. K. (1994). Beyond parental control and authoritarian parenting style: Understanding Chinese parenting through the cultural notion of training. *Child Development, 65*, 1111–1120. doi:10.2307/1131308
- Chao, R. K. (2000). Cultural explanations for the role of parenting in the school success of Asian-American children. In R. D. Taylor & M. C. Wang (Eds.) *Resilience across contexts: Family, work, culture, and community* (pp. 333–363). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Chao, R. K. (2009). Interpretations of parental control by Asian immigrant and European American youth. *Journal of Family Psychology, 23*(3), 342–354.
- Cheah, C. L., & Rubin, K. H. (2004). European American and Mainland Chinese mothers' responses to aggression and social withdrawal in preschoolers. *International Journal of Behavioral Development, 28*, 83–94.
- Chiu, L. H. (1987). Child-rearing attitudes of Chinese, Chinese-American, and Anglo-American mothers. *International Journal of Psychology, 22*:409–419. doi:10.1080/00207598708246782
- Cho, P. J. (1997). Asian American experiences: A view from the other side. *Journal of Sociology and Social Welfare, 24*, 129–154.
- Chun, C., Enomoto, K., Sue, S., 1996. Health-care issues among Asian Americans: implications of somatization. In: Kata, P.M., Mann, T. (Eds.), *Handbook of diversity issues in health psychology* (pp. 347–366). Plenum Press: New York.
- Collaborative for Academic, Social, and Emotional Learning (2003). *Safe and sound: An educational leader's guide to evidence-based social and emotional learning (SEL) programs*. Chicago: Author.

- Denham, S. A. (2006). Social-emotional competence as support for school readiness: What is it and how do we assess it? *Early Education and Development, 17*, 57–89.
- Denham, S. A. (2006). Emotional competence: Implications for social functioning. In J.L. Luby (Ed.), *Handbook of preschool mental health: Development, disorders, and treatment* (pp. 23–44). New York: Guilford Press.
- Derryberry, D., & Rothbart, M. K. (1997). Reactive and effortful processes in the organization of temperament. *Development and Psychopathology, 9*, 633–652.
- Eisenberg, N., Chang, L., Ma, Y., & Huang, X. (2009). Relations of parenting style to Chinese children's effortful control, ego resilience, and maladjustment. *Development and Psychopathology, 21*, 455–477.
- Eisenberg, N., Cumberland, A., Spinrad, T. L. (1998). Parental socialization of emotion. *Psychol. Inq. 9*:241–73.
- Eisenberg, N., Cumberland, A., Spinrad, T. L., Fabes, R. A., Shepard, S. A., Reiser, M., et al. (2001). The relations of regulation and emotionality to children's externalizing and internalizing problem behavior. *Child Development, 72*, 1112–1134.
- Eisenberg, N., Fabes, R. A., Murphy, M., Maszk, P., Smith, M., & Karbon, M. (1995). The role of emotionality and regulation in children's social functioning: A longitudinal study. *Child Development, 85*, 109–128.
- Eisenberg, N., Gershoff, E. T., Fabes, R. A., Shepard, S. A., Cumberland, A. J., Losoya, S. H., et al. (2001). Mothers' emotional expressivity and children's behavior problems and social competence: Mediation through children's regulation. *Developmental Psychology, 37*, 475–490.
- Eisenberg, N., Hofer, C., Vaughan, J. (2007). Effortful control and its socio-emotional consequences. In J. J. Gross (Ed.), *Handbook of emotion regulation* (pp. 287–306). New York: Guilford Press.
- Eisenberg, N., Liew, J., & Pidada, S. U. (2004). The longitudinal relations of regulation and emotionality to quality of Indonesian children's socioemotional functioning. *Developmental Psychology, 40*, 790–804.
- Eisenberg, N., Ma, Y., Chang, L., Zhou, Q., West, S. G., & Aiken, L. (2007). Relations of effortful control, reactive undercontrol, and anger to Chinese children's adjustment. *Development and Psychopathology, 19*, 385–409.
- Eisenberg, N., Pidada, S., & Liew, J. (2001). The relations of regulation and negative emotionality to Indonesian children's social functioning. *Child Development, 72*, 1747–1763.
- Eisenberg, N., Zhou, Q., Liew, J., Champion, C., & Pidada, S. (2006). Emotion, emotion-related regulation, and social functioning. In X. Chen, D. French, & B. Schneider (Eds.), *Peer relationships in cultural context* (pp. 170–197). Cambridge University Press.
- Eisenberg, N., Zhou, Q., Spinrad, T. L., Valiente, C., Fabes, R. A., & Liew, J. (2005). Relations among positive parenting, children's effortful control, and externalizing problems: A three-wave longitudinal study. *Child Development, 76*, 1055–1071.

- Eng, S., Kanitkar, K., Cleveland, H. H., Herbert, R., Fischer, J., & Wiersma, J. D. (2008). School achievement differences among Chinese and Filipino American students: Acculturation and the family. *Educational Psychology, 28*, 535–550. doi:10.1080/014434107018611308
- Fabes, R. A., Eisenberg, N., Jones, S., Smith, M., Guthrie, I., Poulin, R., et al. (1999). Regulation, emotionality, and preschoolers' socially competent peer interactions. *Child Development, 70*, 432–442.
- Hayashino, D. S., & Chopra, S. B. (2009). Parenting and raising families. In N. Tewari, & A. N. Alvarez (Eds.), *Asian American Psychology: Current Perspectives* (pp.317-336). New York: Taylor & Francis Group, LLC.
- Hinshaw, S. (1992). Externalizing behavior problems and academic underachievement in childhood and adolescence: Causal relationships and underlying mechanisms. *Psychological Bulletin, 111*, 127–155.
- Kao G. (1995). Asian-Americans as model minorities? A look at their academic performance. *American Journal of Education, 103*, 121–159.
- Kao, G., & Thompson, J. S. (2003). Racial and ethnic stratification in educational achievement and attainment. *Annual Review of Sociology, 29*, 417–442.
- Karremans A, van Tuijl C, van Aken MAG, et al. (2006). Parenting and self-regulation in preschoolers: a meta-analysis. *Infant Child Dev, 15*:561–79.
- Kochanska, G., Murray, K. T., & Harlan, E. T. (2000). Effortful control in early childhood: Continuity and change, antecedents, and implications for social development. *Developmental Psychology, 36*, 220–232.
- Kovacs, M., & Devlin, B. (1998). Internalizing disorders in childhood. *Journal of Child Psychology & Psychiatry, 39*, 47–63.
- Krueger, R. F., Caspi, A., Moffitt, T. E., White, J., & Stouthamer-Loeber, M. (1996). Delay of gratification, psychopathology, and personality: Is low self-control specific to externalizing problems? *Journal of Personality, 64*, 107–129.
- Ladd, G. W., & Price, J. M. (1987). Predicting children's social and school adjustment following the transition from preschool to kindergarten. *Child Development, 58*, 1168–1189.
- Lee, S. J. (1996). *Unraveling the "model minority" stereotype: Listening to Asian American youth*. New York: Teacher College Press.
- Lee, I., & Koro-Ljungberg, M. (2007). A phenomenological study of Korean students' acculturation in middle schools in the USA. *Journal of Research in International Education, 6*, 95–117. doi:10.1177/147524090706465
- Leong, F., & Lau, A. (2001). Barriers to providing effective mental health services to Asian Americans. *Mental Health Services Research, 3*(4), 201–214.
- Liew, J., Eisenberg, N., & Reiser, M. (2004). Preschoolers' effortful control and negative emotionality, immediate reactions to disappointment, and quality of social functioning. *Journal of Experimental Child Psychology, 89*, 298–319.
- Liew, J., McTigue, E., Barrois, L., & Hughes, J. N. (2008). Adaptive and effortful control and academic self-efficacy beliefs on literacy and math achievement: A longitudinal study on 1st through 3rd graders. *Early Childhood Research Quarterly, 23*, 515–526.

- Liew, J., Youngman, A., & Smith, T. R., Thoemmes, F. (under review). Parental expressivity, child physiological and behavioral regulation, and child adjustment: Testing a three-path mediation model.
- Lin, K. & Cheung, F. (1999). Mental health issues for Asian Americans. *Psychiatric Services, 50*, 774–780.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224–253.
- McClelland, M. M., Cameron, C. E., Connor, C. M., Farris, C. L., Jewkes, A. M., & Morrison, F. J. (2007). Links between behavioral regulation and preschoolers' literacy, vocabulary, and math skills. *Developmental Psychology, 43*, 947–959.
- Olson, S. L., Sameroff, A. J., Kerr, D. C. R., Lopez, N., & Wellman, H. M. (2005). Developmental foundations of externalizing problems in young children: The role of effortful control. *Development and Psychopathology, 17*, 25–45.
- Oyserman, D., & Sakamoto, I. (1997). Being Asian American: Identity, cultural constructs, and stereotype perception. *Journal of Applied Behavioral Science, 33*, 435–453.
- Park, C. C., Goodwin, A. L., & Lee, S. J. (2003). *Asian American identity, families, and schooling*. Greenwich, CN: Information Age Publishing.
- Parke, R. & Buriel, R. (2006). Socialization in the family: Ethnic and ecological perspectives. In N. Eisenberg (Ed.), *The handbook of child psychology: Social, emotional, and personality development* (6th ed., Vol. 3, pp. 429–504). New York: Wiley.
- Payton, J., Weissberg, R. P., Durlak, J. A., Dymnicki, A. B., Taylor, R. D., Schellinger, K. B., et al. (2008). *The positive impact of social and emotional learning for kindergarten to eight-grade students: Findings from three scientific reviews*. Chicago: Collaborative for Academic, Social, and Emotional Learning.
- Perry, K. E., & Weinstein, R. S. (1998). The social context of early schooling and children's adjustment. *Educational Psychologist, 33*, 177–194. doi:10.1207/s15326985ep3304_3
- Posner, M. I., & Rothbart, M. K. Developing mechanisms of self-regulation. *Development and Psychopathology, 12*, 427–441.
- Qin, D. B., Way, N., & Rana, M. (2008). Understanding psychological and social adjustment of Chinese American adolescents at school. *New Directions for Child and Adolescent Development, 121*, 27–42.
- Raffaelli, M., Crockett, L. J., & Shen, Y. (2005). Developmental stability and change in self-regulation from childhood to adolescence. *The Journal of Genetic Psychology, 166*, 54–75.
- Raver, C., & Knitzer, J. (2002). *Ready to enter: What research tells policy makers about strategies to promote social and emotional school readiness among three- and four-year old children*. New York: National Center for Children in Poverty.
- Rimm-Kaufman, S. E., LaParo, K. M., Downer, J. T., & Pianta, R. C. (2005). The contribution of classroom setting and quality of instruction to children's behavior in the kindergarten classroom. *Elementary School Journal, 105*, 377–394.

- Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005). Teachers, schools, and academic achievement. *Econometrica*, *73*, 417–458.
- Rosenbloom, S. R., & Way, N. (2004). Experiences of discrimination among African American, Asian American, and Latino adolescents in an urban high school. *Youth & Society*, *35*, 420–451.
- Rothbart, M. K., & Bates, J. E. (2006). Temperament. In W. Damon & R. M. Lerner (Series Eds.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (6th ed., pp. 99–166). New York: Wiley.
- Rothbart, M. K., Ellis, L. K., Rueda, M. R. & Posner, M. I. (2003). Developing mechanisms of temperamental effortful control. *Journal of Personality*, *71*, 1113–1143.
- Rubin, K. H., Coplan, R. J., Nelson, L. J., Cheah, C. S. L., & Lagace-Seguin, D. G. (1999). Peer relationships in childhood. In M. H. Bornstein & M. E. Lamb (Eds.), *Developmental psychology: An advanced textbook* (4th ed., pp. 451–502). Mahwah, NJ: Lawrence Erlbaum.
- Rudy, D., & Grusec, J. E. (2006). Authoritarian parenting in individualist and collectivist groups: Associations with maternal emotion and cognition and children's self-esteem. *Journal of Family Psychology*, *20*, 68–78.
- Schneider, B., & Lee, Y. (1990). A model of academic success: The school and home environment of East Asian students. *Anthropology and Education Quarterly*, *21*, 358–377. doi:10.1525/aeq.1990.21.4.04x0596x
- Serafica, F. C. (1990). Counseling Asian-American parents: A cultural-developmental approach. In F. C. Serafica, A. I. Schwebel, R. K. Russell, P. D. Isaac, & L. B. Myers (Eds.), *Mental health of ethnic minorities*. New York: Praeger.
- Sheese, B., Rothbart, M., Posner, M., White, L.K. & Fraundorf, S.H. (2008). Executive attention and self-regulation in infancy. *Infant Behavior & Development*, *31*, 501–510.
- Steinberg, L., Lamborn, S. D., Darling, N., Mounts, N. S., & Dornbusch, S. M. (1994). Over-time changes in adjustment and competence among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development*, *65*, 754–770. doi:10.2307/1131416
- Steinberg, L., Mounts, N. S., Lamborn, S. D., & Dornbusch, S. M. (1991). Authoritative parenting and adolescent adjustment across varied ecological niches. *Journal of Research in Adolescence*, *1*, 9–36.
- Thatchenkery, T. J., & Cheng, C. (1997). Seeing beneath the surface to appreciate what "is": A call for a balanced inquiry and consciousness raising regarding Asian Americans in organizations. *Journal of Applied Behavioral Science*, *33*, 397–406.
- Uba, L. (2003). *Asian Americans: Personality Patterns, Identity, and Mental Health*. New York: Guilford Press.
- US Census Bureau. 2008. <http://www.census.gov/population/www/projections/popproj.html>
- Valiente, C., Eisenberg, N., Smith, C. L., Reiser, M., Fabes, R. A., Losoya, S., et al., (2003). The relations of effortful control and reactive control to children's

- externalizing problems: A longitudinal assessment. *Journal of Personality*, 71, 1171–1196.
- Valiente, C., Lemery-Chalfant, K., Swanson, J., & Reiser, M. (2008). Prediction of children's academic competence from their effortful control, relationships, and classroom participation. *Journal of Educational Psychology*, 100, 67–77.
- Yagi, D.T., & Oh, M.Y. (1995). Counseling Asian American Students. In C.C. Lee (ed.), *Counseling for Diversity: A Guide for School Counselors and Related Professionals* (pp. 61–83). Boston: Allyn & Bacon.
- Ying, Y., Lee, P., Tsai, J., Hung, Y., Lin, M., & wan, C. (2001). Asian American college students as model minorities: An examination of their overall competence. *Cultural Diversity and Ethnic Minority Psychology*, 7, 59–74.
- Zahn-Waxler, C., Klimes-Dougan, B., & Slattery, M. J. (2000). Internalizing problems of childhood and adolescence: Prospects, pitfalls, and progress in understanding the development of anxiety and depression. *Development and Psychopathology*, 12, 443–466.
- Zhang, A. Y., Snowden, L. R., & Sue, S. (1998). Differences between Asian and white Americans' help seeking and utilization patterns in the Los Angeles area. *Journal of Community Psychology*, 26, 317–326.
- Zhou, Q., Eisenberg, N., Wang, Y., & Reiser, M. (2004). Chinese children's effortful control and dispositional anger/frustration: Relations to parenting styles and children's social functioning. *Developmental Psychology*, 40, 352–366.
- Zhou, Q., Hofer, C., Eisenberg, N., Reiser, M., Spinrad, T. L., & Fabes, R. A. (2007). The developmental trajectories of attention focusing, attentional and behavioral persistence, and externalizing problems during school-age years. *Developmental Psychology*, 43, 369–385.
- Zhou, Q., Main, A., & Wang, Y. (in press). The relations of temperamental effortful control and anger/frustration to Chinese children's academic achievement and social adjustment: A longitudinal study. *Journal of Educational Psychology*.
- Zhou, Z., Peverly, S. T., Xin, T., Huang, A. S., & Wang, W. (2003). School adjustment of first-generation Chinese-American adolescents. *Psychology in the Schools*, 40, 71–84. doi:10.1002/pit.10070
- Zhou, Q., Wang, Y., Deng, X., Eisenberg, N., Wolchik, S. A., & Tein, J. (2008). Relations of parenting and temperament to Chinese children's experience of negative life events, coping efficacy, and externalizing problems. *Child Development*, 79, 493–513.