

## Controlling and Autonomy-Supportive Parenting in the United States and China: Beyond Children's Reports

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Research comparing the predictive power of parents' control and autonomy support in the United States and China has relied almost exclusively on children's reports. Such reports may lead to inaccurate conclusions if they do not reflect parents' practices to the same extent in the two countries. A total of 394 American and Chinese children ( $M_{\text{age}} = 13.19$  years) and their mothers reported on mothers' controlling and autonomy-supportive parenting in the academic arena; trained observers coded such parenting in the laboratory. Children's reports were associated modestly with mothers' reports and weakly, if at all, with observers' reports in both the United States and China. Parenting predicted children's academic and emotional functioning similarly in the two countries, irrespective of reporter.

There has been much research in the West, particularly the United States, on the role of parents' control in the development of children's psychological functioning (for reviews, see Grolnick & Pomerantz, 2009; Soenens & Vansteenkiste, 2010). Parents' heightened controlling practices—that is, their attempts to intrude on children's thoughts, feelings, and behaviors—predict dampened adjustment among children, such that children often develop academic and emotional problems (e.g., Barber, 1996; Grolnick, Gurland, DeCoursey, & Jacob, 2002). In contrast, when parents are autonomy supportive—that is, they encourage children's self-direction by adopting children's perspective and allowing children to make decisions—children flourish (e.g., Grolnick & Ryan, 1989). Children have been assumed to suffer when parents are controlling rather than autonomy supportive in part because such parenting undermines children's basic need for autonomy (e.g., Grolnick, Deci, & Ryan, 1997; Soenens & Vansteenkiste, 2010).

It has been argued that in countries such as China where less significance appears to be placed on the autonomy of the individual (for a review, see Oyserman, Coon, & Kimmelmeier, 2002),

controlling parenting is not as detrimental as in the West (e.g., Chao, 1994; Soenens, Vansteenkiste, & Van Petegem, 2015). Contrary to this proposition, however, several studies find that parents' control predicts dampened academic and emotional functioning among children in China to the same extent as in the United States (for a review, see Pomerantz & Wang, 2009). Unfortunately, the evidence is based almost exclusively on *children's reports* of parenting. If American and Chinese children's reports of controlling and autonomy-supportive parenting do not similarly reflect parents' practices, comparisons of the predictive power of such parenting in the two countries may be erroneous given the reliance on children's reports.

### *Controlling and Autonomy-Supportive Parenting in the United States and China*

Cultural relativist perspectives on socialization call into question the uniformity of the undermining role of controlling parenting (for a review, see Pomerantz & Wang, 2009). In one of the first arguments in this vein, Chao (1994) proposed that the Chinese notion of *guan*, which entails meanings of "to love" and "to govern," leads children to view

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parents' control as motivated by good intentions, thereby diminishing its costs. Later, Iyengar and Lepper (1999) contended that children of Chinese descent are more willing to take on parents' demands as their own because doing so maintains harmonious relationships with parents, which is of particular importance in Chinese culture. More broadly, Soenens et al. (2015) suggested that cultural values can shape how children appraise controlling and autonomy-supportive parenting (e.g., the less the autonomy of the individual is culturally valued, the less children see control in a negative light), which influences the extent to which parents' control has costs and their autonomy support has benefits.

To date, there has *not* been strong empirical support for cultural relativist perspectives. Research examining naturally occurring controlling and autonomy-supportive parenting finds that the predictive power of such parenting is generally similar in the United States and China (e.g., Barber, Stolz, & Olsen, 2005; Olsen et al., 2002; Qin, Pomerantz, & Wang, 2009). For example, focusing on early adolescents in the United States and China, Wang, Pomerantz, and Chen (2007) found that parents' control and autonomy support predicted children's academic and emotional functioning 6 months later similarly in the two countries, with the exception of autonomy support predicting emotional functioning more strongly in the United States (vs. China). A follow-up of the same sample generally yielded similarity in the two countries, with controlling parenting sometimes being a *weaker* predictor in the United States (Cheung & Pomerantz, 2011).

#### *Potential Biases in Children's Reports of Controlling and Autonomy-Supportive Parenting*

Research comparing the predictive power of controlling parenting in the United States and China has consistently relied on children's reports of such parenting, except for one study using parents' reports (Olsen et al., 2002). Children's reports are valuable as they represent children's perspective, which may be the mechanism by which parenting shapes children's adjustment (e.g., Grolnick & Slowiaczek, 1994). However, it is unclear if American and Chinese children's reports correspond to parents' practices similarly, despite the attention to establishing measurement invariance between the two countries (e.g., American and Chinese children use the response scale similarly; e.g., Qin et al., 2009; Wang et al., 2007). If American and Chinese children's reports differ in the extent to which they

correspond to parents' practices, the comparison of the predictive power of parenting in the two countries may lead to erroneous conclusions. The lack of attention to this issue is surprising given that the associations between children's reports and other assessments (e.g., observations) of parenting are generally not large (e.g., Gonzales, Cauce, & Mason, 1996; Pettit, Laird, Bates, Dodge, & Criss, 2001).

Culture may influence children's reports of parents' control. Although social desirability concerns may lead to bias (for a review, see Johnson, Shavitt, & Holbrook, 2011), such concerns create only unidirectional bias within a culture—that is, individuals are biased in the same direction (e.g., the majority of American children underestimate parents' control). Bias resulting from social desirability may lead to problems in comparing the means (e.g., the extent to which American and Chinese parents are controlling) but not necessarily the associations (e.g., the extent to which American and Chinese parents' control predicts children's adjustment). However, if multidirectional bias exists in one cultural context but not another—that is, individuals are biased in different directions in one country but not the other (e.g., some children underestimate and others overestimate parents' control in the United States, but not China)—then comparisons of the associations across countries may be problematic.

Culture may create multidirectional bias, which may be reflected in children's reports of parenting. For example, in the United States, where much emphasis appears to be placed on the autonomy of the individual, children may feel particularly threatened when they feel their autonomy as an individual is being undermined, which may interfere with their ability to accurately gauge controlling parenting. Some children may underestimate such parenting (e.g., to maintain an illusion of autonomy), whereas others may overestimate it (e.g., because they find even a minor infringement infuriating). Chinese children may feel less threatened given that the autonomy of the individual appears to be of less significance in China (Oyserman et al., 2002); the Chinese notion of *guan* may also reduce the threat as it may lead children to see parents' control as well intentioned (Chao, 1994). Given such differences, children's reports of controlling and autonomy-supportive parenting may lead to more specious associations in the United States (vs. China). The associations may be deflated if the direction of children's tendency to misjudge does not vary with their functioning but inflated if the direction varies with their functioning.

*Beyond Children's Reports of Controlling and  
Autonomy-Supportive Parenting*

The potential bias in children's reports of parenting calls into question the similarity in the United States and China of the predictive power of controlling parenting yielded by the research to date. Although children's reports can provide insight into whether children's *perceptions* of parents' control matters to the same extent in the two countries, it does not provide insight into whether parents' control *itself* matters to the same extent. To elucidate this issue, perspectives on controlling parenting other than that of children are necessary. Indeed, Rogoff (2003) makes the case that understanding culture depends on both "insider" and "outsider" perspectives. First, the convergence of children's reports with parents' and observers' reports can provide insight into bias in American and Chinese children's reports. Parents, similar to children, represent an "insider" perspective in that they are able to observe parenting in a variety of daily contexts, with an understanding of the subjective meaning of practices within the family—in fact, they may have many of the same biases as children. Observers represent an "outsider" perspective as they do not have access to the ongoing interactions of children and parents, often lacking awareness of the subjective meaning of practices (Noller & Callan, 1988). Second, if similarity between the United States and China in the predictive power of controlling parenting is evident across reporters with different perspectives, it would suggest that the similarity evident with children's reports is not limited to their perceptions.

Unfortunately, because prior research on parents' control in the United States and China has not employed parents' and observers' reports in conjunction with children's reports, it is unclear whether differences in American and Chinese children's reports affect the validity of the comparisons. Several studies conducted in the United States have compared children's reports of parenting to parents' and observers' reports (e.g., Noller & Callan, 1988; Pettit et al., 2001; Sessa, Avenevoli, Steinberg, & Morris, 2001). There is minor to moderate correspondence between children's reports and those of parents and observers. For example, in a study of mothers and their adolescent daughters, Gonzales et al. (1996) found that daughters' reports on a survey asking them about their mothers' control were modestly associated with mothers' reports on a parallel survey ( $r = .17$ ) and observers' reports of a conflictual interaction between mothers and

daughters ( $r_s > .32$ ), but mothers' and observers' reports were not associated with one another ( $r_s = .03$ ).

*Overview of the Current Research*

The goal of this research was to make inroads into understanding the role of controlling and autonomy-supportive parenting in the United States and China. First, we examined if children's reports of such parenting correspond with mothers' and observers' reports similarly in the United States and China. Second, we investigated whether controlling and autonomy-supportive parenting are predictive of children's adjustment similarly in the two countries across reporters. We examined these issues among children in early adolescence because this phase of development is often considered a first step toward adulthood, leading issues of children's autonomy to be particularly salient in the context of their relationships with parents (for a review, see Collins & Steinberg, 2006). Indeed, in much of the prior research on controlling parenting in the United States and China, children were studied during this phase of development (e.g., Qin et al., 2009; Wang et al., 2007).

We focused on parenting in the academic arena. Pomerantz and Wang (2009) speculate that cultural relativism may be particularly prominent in this arena. Controlling parenting may be less detrimental for Chinese (vs. American) children when it is exerted around academics because children's learning is of both greater moral (Li, 2005) and practical importance in China than the United States. Hence, Chinese children may see parents' control in the academic arena as well intentioned, which may reduce its cost. Children and mothers reported on mothers' control and autonomy support with frequently used measures (e.g., Barber et al., 2005; Wang et al., 2007) adapted to the academic arena. These measures paralleled a laboratory observation of mothers' control and autonomy support as they worked with children on a set of challenging academic tasks in the laboratory. The tasks were chosen to elicit observable interactions in a standardized setting of similar familiarity in the United States and China. Across reporters, controlling and autonomy-supportive parenting were examined separately as they do not appear to represent opposite ends of a single continuum (e.g., Barber, Bean, & Erickson, 2002; Silk, Morris, Kanaya, & Steinberg, 2003; Wang et al., 2007).

Both children's academic and emotional functioning were assessed. Given the importance of learning

in China, controlling parenting around academics may not interfere with children's academic functioning to the same extent as in the United States. However, it may take a similar toll on children's emotional functioning in the two countries as it undermines children's autonomy in both. In essence, parents' control in China may create what deCharms (1968) labeled "competent pawns"—that is, children who do well in school because they feel compelled to do so. The inclusion of both academic and emotional functioning permitted insight into the breadth of the role of controlling and autonomy-supportive parenting. Children's academic functioning was examined as manifest in their achievement in the laboratory (i.e., performance on cognitive problems) and school (i.e., grades); multiple components of children's emotional functioning (e.g., depressive and anxiety symptoms) were examined via children's reports. Children's functioning was assessed at two time points to take into account autoregression.

## Method

### *Participants*

The current research was part of the University of Illinois American–Chinese Middle School Motivation Project. Participants were 203 seventh-grade children ( $M_{\text{age}} = 13.26$  years; 105 boys) and their mothers ( $M_{\text{age}} = 41.41$  years) in the United States and 191 seventh-grade children ( $M_{\text{age}} = 13.13$  years; 88 boys) and their mothers ( $M_{\text{age}} = 39.15$  years) in China. Data were collected between the fall of 2011 and spring of 2013 in both countries. The data reported here are from a visit children and mothers made to the laboratory and a follow-up survey children completed, along with record data (i.e., grades) obtained at each of these times. In the United States, 4% of children did not complete the follow-up survey; in China, there was no attrition. American children who did not complete the follow-up survey did not differ demographically (e.g., in terms of their age, gender, or mothers' educational attainment) from those who did; there were also no differences on any of the measures (e.g., children's grades or mothers' control and autonomy support) included in this report. Beyond this attrition, 15% of children in the United States had missing data, with the large majority (95%) being for grades. Only 2% of American mothers did not provide permission for us to access children's grades, the remainder of the missing grades was due to schools missing the information (e.g., children

moved to another school). In China, 4% of the children had missing grades because mothers did not provide permission. Children with missing data did not differ from those with complete data, except that they reported mothers as more autonomy supportive,  $t(397) = 2.10$ ,  $p < .05$ .

The American sample was recruited from five middle schools in a small urban area in the Midwest. The middle schools achieved at the state average, with much variation in achievement within schools. American mothers and children were primarily (78%) European American, with 16% African American, 3% Asian, and 1% Hispanic. A majority of the American mothers had at least a college degree (75%); 24% had a high school diploma, with only one not having such a degree. Such a distribution of educational attainment is higher than the average for the area from which mothers and children were recruited. In this area at the time of the study, 38% of adults over the age of 25 years had a bachelor's degree or higher, with 9% having not completed high school (U.S. Census Bureau, 2010). The majority (79%) of American mothers who participated in the study worked outside the home at least part-time; 74% of mothers reported being married. On average, children had 1.67 siblings (range = 0–4). As a token of appreciation for their participation, mothers received \$100 and children received \$25.

The Chinese sample was recruited from two middle schools—one that was average achieving and another that was high achieving—in small urban areas in a large province located in the north-east part of China. Although students' achievement within each of the schools was relatively homogeneous due to region-wise selection and ability streaming, there was still variability in achievement within schools. Reflecting the ethnic composition of the area from which the sample was recruited, Chinese mothers and children were predominantly (99%) of *Han* descent. Approximately half of all Chinese mothers had at least a college degree (54%); 32% had a high school diploma, but 13% did not. Such a distribution of educational attainment is higher than the norm for the area from which mothers and children were recruited. At the time of the study, 9% of the population over 25 years in the area had a bachelor's degree or higher, and 14% had a high school diploma (National Bureau of Statistics of China, 2011). The majority (88%) of Chinese mothers who participated in the study worked outside the home at least part-time and almost all (99%) reported being married. On average, children had 0.14 siblings (range = 0–1) given



the one-child policy in China. Mothers were given RMB 300 and children were given RMB 45 as a token of appreciation for their participation.

#### *Procedure*

Mothers and children visited the laboratory for 2 hr during the spring of seventh grade. Children completed a follow-up survey 6 months after their visit. Upon arrival at the laboratory, mothers and children were welcomed and provided with an introduction to the study. They were then escorted into separate rooms where they each completed a survey, including the measures of mothers' control and autonomy support; children also completed measures of their emotional functioning. A research assistant then explained to mothers the academically challenging activity on which children would be working—that is, the Raven's progressive matrices (Raven, Court, & Raven, 1977). The matrices were separately explained to children who were given two example problems. For both mothers and children, these problems were described as for individuals in the children's age range but actually included a variety of levels—some of which are difficult even for adults. Hence, as a whole, the problems were challenging. Children then worked on a set of eight problems on their own (i.e., preinteraction problems). To increase the evaluative pressure as well as to mirror situations in school, children were told that mothers would be able to see their work at the end.

Mothers later joined children while children worked on a new set of 20 problems from the Raven's progressive matrices. Mothers were told that they could provide as little or as much help as they wanted; they could also peruse at their discretion a sample of five correct and five incorrect problems children had already completed. These 15-min interactions between mothers and children were videotaped. Subsequently, mothers were ushered out of the observation room. Children received a new set of eight problems (i.e., postinteraction problems). At the end of the visit, children were informed that they made substantial improvement on the tasks and that some of the problems were designed for adults. Children were praised for their work. Mothers were debriefed, with particular emphasis on the fact that many of the problems on which children worked were actually for adults. The Institutional Review Boards of the University of Illinois at Urbana-Champaign and the Institute of Psychology at the Chinese Academy of Sciences approved the procedures.

#### *Measures*

The survey measures used in the study were translated and back translated following recommended procedures (Brislin, 1980; see also Erkut, 2010). A team of American and Chinese researchers discussed and resolved any discrepancies that arose in the translation process. The means, standard deviations, and reliabilities for the measures are presented in Table 1.

#### *Children's and Mothers' Reports of Parenting*

The 10 items used by Wang et al. (2007) to assess controlling parenting in the United States and China (Barber, 1996; Silk et al., 2003) were modified to refer to the academic arena (for the full set of items, see Part A of the online Supplementary Materials). Because mothers responded to items paralleling those used with children, minor changes were also made to reduce social desirability among mothers as they may not have wanted to admit to parenting outside the realm of that considered normative (e.g., "My mom takes over my homework if she thinks I am not doing it right" was reworded to "Even if my daughter is not having trouble with her homework, I tell her how to do it."). Children indicated how often (1 = *never* to 5 = *very often*) their mothers' engaged in practices characteristic of psychological control (e.g., "My mom lets me know that she is disappointed in me when I do not do as well as she wants me to in school" and "Even if I am not having trouble with my homework, my mom tells me how to do it."). Mothers responded to parallel items ("I let my daughter know that I am disappointed in her when she does not do as well as I want her to in school" and "Even if my daughter is not having trouble with her homework, I tell her how to do it."). The mean of the 10 items was taken separately for each reporter, with higher numbers reflecting greater control in the academic arena as reported by children and mothers.

Drawing from Wang et al.'s (2007) work in the United States and China, mothers' autonomy-supportive parenting was assessed with eight items from prior research (McPartland & Epstein, 1977; Robbins, 1994; Steinberg, Lamborn, Dornbusch, & Darling, 1992) adapted to the academic arena (for the full set of items, see Part B of the online Supplementary Materials). Children reported on the extent to which mothers are autonomy supportive in the academic arena by indicating how often (1 = *never* to 5 = *very often*) their mothers used practices reflecting autonomy support (e.g., "My mom allows

Table 1  
*Descriptives for Mothers' Parenting and Children's Functioning*

	United States			China		
	<i>M</i>	<i>SD</i>	Reliability	<i>M</i>	<i>SD</i>	Reliability
Parenting						
Control						
Child	2.55	0.88	.87	2.52	0.73	.82
Mother	2.08	0.68	.86	2.43	0.72	.89
Observer	0.32	0.29	.83	0.45	0.30	.86
Autonomy support						
Child	3.99	0.74	.89	3.82	0.74	.88
Mother	4.10	0.63	.89	3.85	0.56	.85
Observer	0.70	0.33	.81	0.41	0.27	.84
Child functioning						
Laboratory achievement						
Preinteraction	3.90	1.57	—	3.60	1.33	—
Postinteraction	5.16	1.52	—	5.65	1.40	—
School grades						
Seventh grade (spring)	.00	1.00	—	.00	1.00	—
Eighth grade (fall)	.00	0.99	—	.00	0.99	—
Emotional functioning						
Seventh grade (spring)	3.66	0.62	.85	3.67	0.67	.83
Eighth grade (fall)	3.33	0.51	.85	3.26	0.68	.81

*Note.* School grades were standardized within school. Reliabilities for children's and mothers' reports are alpha coefficients; reliabilities for observers' reports are kappa coefficients.

me to make choices about my studying whenever possible" and "For things related to school, my mom is usually willing to consider my point of view"). Mothers' responded to parallel items ("I allow my son to make choices about his studying whenever possible" and "For things related to school, I am usually willing to consider my daughters' point of view"). The mean of the eight items was taken separately for each reporter, with higher numbers reflecting greater autonomy support as reported by children and mothers.

Consistent with prior research (e.g., Barber et al., 2002; Silk et al., 2003; Wang et al., 2007), controlling and autonomy-supportive parenting, as reported by each informant, were inversely associated but not to the extent to indicate they were simply opposite ends of a single continuum in the United States ( $r = -.30$  for children's reports and  $-.43$  for mothers' reports,  $ps < .001$ ) and China ( $r = -.34$  for children's reports and  $-.20$  for mothers' reports,  $ps < .001$ ), with independent correlation comparisons using Fisher's  $r$  to  $z$  transformations indicating that the correlation for American mothers' reports were stronger than that for Chinese mothers' reports,  $z = 2.19$ ,  $p < .05$ . Given the modest size of the associations, as in prior research (e.g., Wang et al., 2007), we used separate indices of control

and autonomy support instead of a combined index.

#### *Observers' Reports of Parenting*

Mothers' control and autonomy support during the 15-min interactions with children were coded by a team of six native coders in each country and two bicultural coders included to ensure that there was equivalence in the coding of the native coders in the United States and China. Native coders were born and lived primarily in a single country (e.g., China); they were fluent in the native language of that country (e.g., Chinese). Bicultural coders spent a substantial amount of time living in both the United States and China; they were also fluent in both English and Chinese. The 15-min interactions were coded every 30 s, resulting in 30 intervals of coded information per dyad. All coders were blind to the hypotheses and were trained by the first author until an acceptable level of agreement (i.e., 80%) was reached. Mothers' control and autonomy support were coded on a variety of dimensions (see below) as either 1 = *present* or 0 = *absent* at each 30-s interval. Cohen's kappa was used to assess interrater reliability. Bicultural coders overlapped with the native coders on 20% of the videos in each

country. Kappas ranged from .74 to .92 among the American coders, .78 to .99 among the Chinese coders, and .71 to .97 among the bicultural and native coders.

The coding system was adapted from the system developed by Grolnick, Price, Beiswenger, and Sauck (2007) and Grolnick et al. (2002). Because the original system was designed for use with American parents as well as academic tasks for younger children, minor changes were made to ensure relevance for the current research. For example, mothers' taking over the task was added given that it was a practice commonly observed in China; mothers' writing answers at the request of children was added to capture a practice relevant to solving the Raven's progressive matrices. In addition, a distinction between verbal and physical practices was not made given that it was not of import in the current research.

Four behaviors considered indicative of mothers' control were coded as 1 = *present* or 0 = *absent* during each 30-s interval. First, mothers' leading behaviors were coded. This includes mothers directing (e.g., "You need to take out the circle in the last step." and "Okay, here's what you need to do.") and questioning or making suggestions to children when not requested (e.g., "Why do you think that's 2?" and "Why don't you look diagonally?"). Second, mothers' telling of answers without being requested was coded. This includes mothers' explicit telling, pointing, or writing answers for children when not requested (e.g., "No, that's wrong, 2 is the answer"). Third, mothers' taking over was coded. This includes mothers taking over and working on the task for children (e.g., pulling the problems away from children and working on them on their own). Fourth, mothers' checking of answers without being requested was coded. This includes mothers checking, correcting, and erasing answers without being asked to do so (e.g., turning the page back to see if children have the correct answer when children are ready to move to the next problem). The sum of the four behaviors was taken for each 30-s interval; the mean was then taken across the 30-s intervals, such that higher numbers indicate greater control.

Six behaviors indicative of mothers' autonomy support were coded as 1 = *present* or 0 = *absent* during each of the 30-s intervals. First, mothers' waiting for children was coded. This includes mothers allowing children to take the lead in solving problems. Specifically, mothers are attentive but are not physically or verbally involved (e.g., mothers watch children as they solve the problem and sit quietly

without saying anything). Second, mothers' treating children as the expert was coded (e.g., "How does this work?" and "Can you explain these to me?"). Third, in the context of allowing children to take initiative, mothers' provision of general feedback was coded. This includes mothers' giving positive feedback (e.g., "Good job!"), encouragement (e.g., "You can do it"), and reflection—that is, repeating what the child says (e.g., "Hmmm, a diamond and a circle"). Fourth, in the context of allowing children to be in charge, mothers' provision of information or questions at request was coded. This includes mothers giving specific hints, strategies, or questions, often in response to children's queries or requests (e.g., "Maybe you can look at the answers and see" and "Perhaps you can subtract the outside from the inside?"). Fifth, mothers' checking of answers at request was coded. This includes mothers' efforts to look over children's answers when children ask mothers to do so (e.g., "I don't think that's correct" and "Number 2 doesn't seem like the answer"). Sixth, mothers' writing answers at children's request was coded. This includes mothers filling out the answer sheet for children when requested. The sum of the six behaviors was taken for each 30-s interval; the mean was then taken across the 30 coded intervals, such that higher numbers indicate greater autonomy-supportive parenting.

Similar to children's and mothers' reports, observers' reports of controlling and autonomy-supportive parenting were inversely associated but not to the extent to indicate they were opposite ends of a single continuum ( $r = -.27, p < .001$ ) in the United States. There was no association in China ( $r = -.02, ns$ ). Independent correlation comparisons using Fisher's  $r$  to  $z$  transformations revealed that the American (vs. Chinese) association was stronger,  $z = 2.55, p < .05$ .

### Children's Functioning

*Academic functioning.* Children's performance on the academic task in the laboratory (i.e., *laboratory achievement*) was assessed with the Raven's progressive matrices problem sets children completed on their own. In both the pre- and postinteraction assessments, children worked on a challenging set of eight problems (see above). The number of items children correctly answered within 4 min—which was the time required for most children to complete all items—was used as an indicator of their achievement in the laboratory task, with higher numbers reflecting higher achievement. Because the assessments were identical in the United States and

China, the laboratory task served as an objective evaluation of children's academic functioning in the two countries.

In addition, children's *school grades* in the four core subjects (i.e., language arts, math, science, and social studies in the United States; language arts, math, science, and English in China) were obtained from schools in the spring of seventh grade when children visited the laboratory and 6 months after their visit in the fall of eighth grade. Grades in the American schools were in letters and were converted to numbers ( $F = 0$  to  $A+ = 12$ ). In the Chinese schools, grades were numerical, ranging from 0 to 120. Grades were standardized within schools to take into account differences in grading systems. The average of the standardized scores across the four subjects was taken as an index of children's grades within country, with higher numbers indicating better grades.

*Emotional functioning.* Children completed five scales assessing their emotional functioning during their visit to the laboratory and 6 months later at home. Positive and negative emotions were measured with 16 items (e.g., happy and worried) selected from scales used in prior research (Diener, Smith, & Fujita, 1995; Patrick, Skinner, & Connell, 1993; Watson, Clark, & Tellegen, 1988). Children indicated how often (1 = *never* to 5 = *very often*) they experienced each emotion in the past week. The negative emotions were reverse scored and combined with the positive emotions. Children's life satisfaction was assessed with the 7-item Student's Life Satisfaction Scale (Terry & Huebner, 1995). Children indicated how true (1 = *not at all true* to 5 = *very true*) each of seven statements was of them (e.g., "My life is going well";  $\alpha_s > .86$ ). Children's self-esteem was assessed with Rosenberg's (1965) scale. Children indicated how true each statement was of them (e.g., "I feel good about myself"). Twelve items from the Short Mood and Feelings Questionnaire (Angold et al., 1995) were used to assess children's depressive symptoms. Children indicated how true each statement was of them (e.g., "I didn't enjoy anything at all"). Children's anxiety symptoms were assessed with a modified version (Pomerantz & Rudolph, 2003) of the Revised Child Manifest Anxiety Scale (Reynolds & Richmond, 1978). Children rated how often they experienced 25 anxiety symptoms (e.g., "I get nervous when things do not go the right way"). Items in the depressive and anxiety symptom scales were reverse scored and combined with the emotions, self-esteem, and life satisfaction scales by taking the mean of the five scales, which were sizably

associated ( $r_s = .32-.85$  in the United States and  $.37-.85$  in China,  $p_s < .001$ ). Higher numbers represented more positive emotional functioning.

## Results

Three sets of analyses were conducted. The first was preliminary in that it was aimed at establishing measurement invariance of the survey measures across the United States and China. The goal of the second set of analyses was to identify if American and Chinese children's reports of controlling and autonomy-supportive parenting among mothers similarly correspond to observers' and mothers' reports. To this end, correlations between the different informants were examined. To evaluate the predictive power of controlling and autonomy-supportive parenting in the United States and China, the third set of analyses examined the extent to which children's, mothers', and observers' reports of controlling and autonomy-supportive parenting predict children's academic and emotional functioning similarly in the two countries.

### *Measurement Invariance*

Sets of two-group confirmatory factor analysis (CFA) were conducted to evaluate the invariance of the survey measures across countries. Metric invariance was evaluated as it is essential for making valid comparisons of the *associations* between the United States and China (e.g., Chen, 2007). Hence, such invariance is key to the two central sets of analyses. Invariance of the measures was tested in the context of structural equation modeling using AMOS 20.0 (Arbuckle, 2011). AMOS employs full information maximum likelihood estimation in the presence of missing data, which provides less biased estimates than other approaches, such as list- and case-wise deletions to handling missing data (Arbuckle, 1996).

In each set of two-group CFAs, an unconstrained model was compared to a constrained model (i.e., the metric invariant model). For each model (e.g., autonomy support), four to five parcels—randomly selected items from each of the scales in the case of the parenting measures or scales themselves in the case of the emotional functioning measure—were used as indicators. The use of parcels allowed for the construction of parsimonious models, which can enhance the likelihood of replication in future research (Little, Cunningham, Shahar, & Widaman, 2002; Little, Rhemtulla, Gibson, & Schoemann,



2013). When suggested by modification indices, and with conceptual justification, error terms were correlated to enhance model fit (Keith, 2006; McDonald & Ho, 2002). This led to correlating three or fewer error terms in two of the five sets of models testing invariance.

In the unconstrained models, the parameters were freely estimated without any cross-group constraints. In the more parsimonious constrained models, which were identical to the unconstrained models otherwise, the factor loadings of the same indicators were forced to be equal across groups. Following recommendations by Chen (2007), a change in comparative fit index (CFI) and Tucker-Lewis index (TLI) of  $< .01$  and in root mean square error of approximation (RMSEA) of  $< .015$  between the unconstrained and constrained models was taken as evidence of invariance. The unconstrained models fit the data well (CFIs = .96–.99; TLIs = .95–.99; RMSEAs = .01–.07). When the invariance models, with constraints imposed on the factor loadings between the two countries, were compared to the unconstrained models, the changes in model fit were all smaller than .01, indicating that valid comparisons of the associations in the two countries can be made.

#### *Correspondence Among Children's, Mothers', and Observers' Reports of Parenting*

The extent to which children's reports of controlling and autonomy-supportive parenting correspond with mothers' and observers' reports was evaluated using simple correlations; independent correlation comparisons using Fishers'  $r$  to  $z$  transformations were employed to identify if the associations differed in the United States and China. As shown in Table 2, consistent with prior research, the correspondence between children's and mothers'

reports of parenting was moderate ( $r_s = .17-.42$ ), with weaker correspondence between children's and observers' reports ( $r_s = .02-.20$ ). Fishers'  $r$  to  $z$  transformation revealed that the associations between each pair of informants were similar in the United States and China,  $z_s < 1.61$ ,  $ns$ , such that there was similar correspondence in American and Chinese children's reports with mothers' and observers' reports. As revealed by dependent correlation comparisons using Fisher's  $r$  to  $z$  transformations with the entire sample, correspondence between children's and mothers' reports of parenting were consistently stronger than the correspondence between children's and observers' reports for both controlling and autonomy-supportive parenting,  $t_s > 2.19$ ,  $p_s < .05$ . Similar to children's reports, mothers' reports were only modestly associated with observers' reports ( $r_s = .06-.17$ ); the associations also did not differ between the United States and China,  $z_s < 1$ . Dependent correlation comparisons conducted on the entire sample indicated that the correspondence between mothers' and observers' reports was largely similar to that between children's and observers' reports,  $t_s < 1.50$ ,  $ns$ .

An additional set of analyses was conducted to examine if the weak correspondence between children's—as well as mothers'—and observers' reports was due to the fact that some of the practices asked about in the surveys children and mothers completed rarely, if ever, occurred during the interactions in the laboratory. Although this was not an issue for autonomy-supportive parenting, it was an issue for controlling parenting. We dropped three items assessing guilt induction (e.g., "If I'm not studying as much as she thinks I should, my mom tells me of all the sacrifices she has made for me.") from the survey measures of controlling parenting. The associations between children's and observers' reports were almost identical to those using the original measure ( $r_s = .03$  in the United States and .20 in China). The associations between mothers' and observers' reports were also quite similar to the original associations ( $r_s = .16$  in the United States and .09 in China).

Table 2  
*Zero-Order Correlations Among Children's, Mothers', and Observer's Reports of Parenting*

Association	United States	China	Difference ( $z$ )	$p$
Control				
Child–Mother	.42***	.28***	–1.58	.11
Child–Observer	.04	.20**	1.60	.11
Mother–Observer	.17*	.10	–0.70	.48
Autonomy support				
Child–Mother	.17*	.23**	0.62	.54
Child–Observer	.05	.02	–0.30	.76
Mother–Observer	.11	.06	–0.50	.62

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

#### *The Predictive Power of Children's, Mothers', and Observers' Reports of Parenting*

The next set of analyses evaluated if the similarities in the predictive power of controlling and autonomy-supportive parenting in the United States and China documented in prior research are simply an artifact of the reliance on children's reports. Regression analyses were conducted to

identify if children's, mothers', and observers' reports of control and autonomy support predict children's academic (i.e., performance on the laboratory task and grades in school) and emotional functioning similarly in the United States and China. These regressions included country (1 = United States, -1 = China), children's gender (1 = girls, -1 = boys), sibling status (1 = sibling present, -1 = no sibling), and mothers' educational attainment (1 = less than a high school diploma to 6 = an advanced degree such as PhD or MD) as covariates. Children's prior functioning (e.g., preinteraction laboratory achievement) was also entered into the regression as a covariate. We tested the Parenting  $\times$  Country interaction to determine if parenting differed in its predictive power in the United States and China. Overall, there was little evidence that either controlling or autonomy-supportive parenting differed in the two countries in terms of the extent to which they predicted children's academic and emotional functioning: Of the 18 interactions examined (see Table 3), only one was significant (i.e., mothers' reports predicting children's grades).

### Academic Functioning

To evaluate the role of controlling and autonomy-supportive parenting on children's achievement in the laboratory task, children's postinteraction laboratory achievement was predicted from children's, mothers', and observers' reports of parenting—each in a separate model—adjusting for children's preinteraction laboratory achievement, as well as the other covariates (see above). As shown in Table 3, irrespective of reporter, mothers' control predicted children's dampened postinteraction achievement,  $ts > 2.23$ ,  $ps < .05$ . There was no moderation by country,  $ts < 1.06$ ,  $ns$ , indicating that the predictive power of mothers' control was similar in the United States and China, even when children did not serve as reporters of such parenting. A comparable pattern was evident for mothers' autonomy support: Regardless of reporter, the more mothers were autonomy supportive, the better children's performance on the laboratory task, taking into account children's earlier achievement,  $ts > 1.95$ ,  $ps < .05$ , with this being similar in the United States and China,  $ts < 1$ .

Table 3

Standardized Coefficients From Regression Models Predicting Children's Functioning From Children's, Mothers', and Observers' Reports of Parenting

Predictor	Child functioning		
	Laboratory achievement	School grades	Emotional functioning
Models for control			
Child report model			
Parenting	-.13**	-.13**	-.14***
Parenting $\times$ Country	.03 ( $p = .53$ )	-.03 ( $p = .38$ )	.06 ( $p = .10$ )
Mother report model			
Parenting	-.10*	-.05	-.08*
Parenting $\times$ Country	-.03 ( $p = .70$ )	-.10 ( $p = .04$ )*	.01 ( $p = .89$ )
Observer report model			
Parenting	-.15**	-.04	-.07*
Parenting $\times$ Country	-.04 ( $p = .37$ )	-.01 ( $p = .79$ )	-.03 ( $p = .45$ )
Models for autonomy support			
Child report model			
Parenting	.10*	.02	.14***
Parenting $\times$ Country	.04 ( $p = .33$ )	.04 ( $p = .25$ )	.02 ( $p = .72$ )
Mother report model			
Parenting	.14**	.01	.01
Parenting $\times$ Country	.03 ( $p = .63$ )	.02 ( $p = .73$ )	-.02 ( $p = .70$ )
Observer report model			
Parenting	.14**	-.06	.04
Parenting $\times$ Country	.02 ( $p = .82$ )	.04 ( $p = .31$ )	.06 ( $p = .13$ )

Note. Each model adjusted for children's prior functioning (e.g., preinteraction achievement and prior school grades), country (1 = United States, -1 = China), children's gender (1 = girls, -1 = boys), sibling status (1 = sibling present, -1 = no sibling), and mothers' educational attainment (1 = less than a high school diploma to 6 = an advanced degree such as PhD or MD).

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

A similar pattern emerged when predicting children's grades in school during the fall of eighth grade adjusting for their grades in the spring of seventh grade (i.e., when they visited the laboratory). Children's reports of mothers' control predicted their dampened grades over and above their earlier grades,  $t_s > 2.37$ ,  $p_s < .05$ , with no moderation by country,  $t_s < 1$ . For mothers' reports, there was a Controlling Parenting  $\times$  Country interaction for children's grades,  $t(362) = 2.13$ ,  $p < .05$ . Decomposition revealed that mothers' reports of control predicted dampened grades over time in the United States ( $\beta = -.15$ ,  $p < .05$ ) but not China ( $\beta = .05$ ,  $ns$ ). Observers' reports of mothers' control were not predictive of children's grades in school over time,  $t(362) < 1$ , with no moderation by country,  $t(362) < 1$ . Mothers' autonomy support was generally not predictive of children's grades over time, regardless of reporter,  $t_s < 1$ , with no moderation by country,  $t_s < 1.21$ ,  $ns$ .

### *Emotional Functioning*

As shown in Table 3, regression analyses predicted children's emotional functioning in the fall of eighth grade adjusting for their emotional functioning in the spring of seventh grade along with the other covariates (see above). Irrespective of reporter, mothers' control predicted children's poorer emotional functioning over time,  $t_s > 2.19$ ,  $p_s < .05$ , with no moderation by country,  $t_s < 1$ . Children's reports of mothers' autonomy support predicted enhanced emotional functioning among children over time,  $t(387) = 2.24$ ,  $p < .05$ , uniformly in the two countries,  $t(387) < 1$ . Mothers' and observers' reports of autonomy support did not predict children's later emotional functioning,  $t_s < 1$ , in either country,  $t_s < 1.12$ ,  $ns$ .

### *The Unique Predictive Power of Children's, Mothers', and Observers' Reports of Parenting*

Both mothers' control and autonomy support, regardless of reporter, predicted children's laboratory achievement over and above their achievement prior to working with mothers. Hence, each reporter appears to be picking up on meaningful aspects of mothers' practices. In analyses predicting children's achievement in the laboratory from all three reporters simultaneously, mothers' reports of their control captured little beyond children's and observers' reports ( $\beta = -.06$ ,  $ns$ ), but the latter two reports captured unique variance ( $\beta_s = -.13$  and  $-.15$ ,  $p_s < .05$ ). When it came to autonomy support,

however, children's and mothers' reports ( $\beta_s = .10$  and  $.11$ ,  $p_s < .05$ ), but not observers' reports ( $\beta_s = .04$ ,  $ns$ ), captured unique variance. For children's grades, it appears that children's reports of mothers' control were the most important, as it was the only report predictive of this aspect of children's academic functioning (see Table 3). Likewise, children's reports of mothers' control and autonomy support were the only reports ( $\beta = -.16$  and  $.14$ ,  $p < .05$ ) predictive of their emotional functioning once simultaneous regressions were conducted including all three reporters ( $\beta_s = -.05$  and  $.05$  for mothers' reports and  $-.06$  and  $.01$  for observers' reports,  $ns$ ). Across both academic and emotional functioning, children's reports were the most consistent predictor.

## **Discussion**

Although cultural relativist perspectives on socialization have called into question the uniformity of the undermining role of controlling parenting (e.g., Chao, 1994; Iyengar & Lepper, 1999; Soenens et al., 2015), the empirical evidence to date yielded by research comparing the United States and China generally does not support such perspectives (for a review, see Pomerantz & Wang, 2009). Such evidence, however, comes from research relying almost exclusively on children's reports. Children's reports may lead to specious conclusions if they are biased differently in the two countries. The current research revealed that the correspondence among children's, mothers', and observers' reports is similar in the United States and China. Moreover, as has been the case in research using children's reports, differences in the predictive power of American and Chinese mothers' control and autonomy support were practically nonexistent when using mothers' and observers' reports. Hence, it is unlikely that the similarity between the United States and China in the predictive power of controlling parenting documented in prior research is due to the use of children's reports.

### *Correspondence Among Children's, Mothers', and Observers' Reports of Parenting*

Similar to prior research conducted in the United States (e.g., Gonzales et al., 1996; Pettit et al., 2001), the correspondence among children's, mothers', and observers' reports of controlling and autonomy-supportive parenting can be described at best as modest. The associations between children's and

observers' reports seldom reached significance; in the one case when they did, the association was small. There are several possibilities for such modest correspondence. For one, observers' reports were based on a thin slice of mothers' practices: There was not only a limited time frame (i.e., 15 min) but also a specific type of task that was novel, despite being designed to mirror academic activities in which children and parents engage. Such novelty, along with the laboratory setting in which distractions (e.g., household chores) were not present, may have led to parenting practices not fully representative of those used by mothers on a daily basis. However, it is also possible that the problem may lie in children's reports. For example, because issues of children's autonomy are often particularly salient in the context of children's relationships with parents as children enter adolescence (for a review, see Collins & Steinberg, 2006), children may feel threatened by parents' control, which may interfere with the accuracy of their estimates. It is also likely that children's reports may be situated in the larger context of their interactions with parents, such that their reports are influenced by the quality of their relationships with parents.

Children's reports of mothers' control and autonomy support were more strongly associated with mothers' than observers' reports in the current study. This is likely due in part to mothers and children filling out practically identical surveys about mothers' control and autonomy support. Mothers and children may also share similar attributes, values, and perspectives that inflate the association. However, the stronger associations may reflect that mothers and children are both "insiders" in that they are able to observe parenting in a variety of daily contexts, with an understanding of the subjective meaning of practices within the family. In contrast, observers are "outsiders" in that they do not have access to the ongoing interactions of children and parents, often lacking awareness of the subjective meaning of practices. Although larger than the associations between children's and observers' reports, the associations between children's and mothers' reports were not substantial, which is consistent with prior research conducted in the United States indicating modest associations between children's and parents' reports (e.g., Gonzales et al., 1996; Noller & Callan, 1988; Pettit et al., 2001). This may reflect divergent perspectives and concerns on the part of children and mothers (Noller & Callan, 1988). For example, mothers may use their beliefs about what they would like to do when reporting on their parenting, but children

may be unaware of such beliefs or see them as irrelevant.

Despite the possibility that American and Chinese children's reports of controlling parenting may differ in terms of how biased they are, the correspondence of children's reports with mothers' and observers' reports of mothers' control and autonomy support in the current research were similar in the United States and China. Hence, there was no evidence that bias in children's reports is responsible for the similarity in the predictive power of such parenting that has emerged in prior research. The apparent differential significance of the autonomy of the individual in the United States and China is largely irrelevant to the extent to which children's reports correspond to mothers' practices. This may be due in part to the fact that the items on the measures of mothers' control and autonomy support represent tangible and easily observable practices (e.g., "My mom lets me make my own plans for things I want to do."), which may minimize bias among both American and Chinese children in identifying instances of controlling and autonomy-supportive parenting.

The major aim of the current research was to determine if biases in American and Chinese children's reports of controlling and autonomy-supportive parenting lead to specious conclusions about the role of such parenting in the United States and China. What we label multidirectional bias (i.e., individuals are biased in different directions in one country more than the other) can inflate or deflate the predictive power in one country more than the other. Multidirectional bias would be evident if the *correlations* between children's reports and others' reports of parenting in one country differed in size from the other country—hence, our focus on correspondence in terms of correlations. However, there may be other important forms of bias that are not captured by the approach we took. Most notably, what we label unidirectional bias (i.e., individuals are biased in the same direction within one country more than the other) may be evident. Unfortunately, our survey measures did not possess scalar equivalence, which is necessary for comparing the means between the United States and China (e.g., Chen, 2007); moreover, the different scales used for the survey and observation measures made such comparisons difficult. Thus, we could not examine this type of bias; however, doing so could provide useful insights, especially if correspondence of this type is of psychological significance—Gonzales et al. (1996) suggest that it may



lead to fewer conflicts between parents and children.

*The Role of Parents' Control and Autonomy Support in Children's Functioning*

Not only was there no evidence that children's reports of controlling and autonomy-supportive parenting differed in the United States and China in terms of their correspondence with mothers' and observers' reports, but the predictive power of such parenting on children's academic and emotional functioning was also generally similar in the two countries, irrespective of whether children, mothers, or observers provided reports. The one exception was that mothers' reports of control predicted poorer grades among children 6 months later in the United States but not China. However, care should be taken in drawing conclusions from this single finding: Of six possible Parenting  $\times$  Country interactions involving mothers' reports, only one demonstrated this trend, with the others not being near significant. Overall, the similarity in the United States and China in the predictive power of controlling and autonomy-supportive parenting is consistent with prior research using children's reports (e.g., Barber et al., 2005; Qin et al., 2009; Soenens, Vansteenkiste, & Sierens, 2009; Wang et al., 2007). Thus, it is unlikely that prior conclusions are an artifact of the reliance on children's reports of parenting. Notably, across both academic and emotional functioning, children's reports were the most consistent predictor when children's mothers' and observers' reports were examined simultaneously. Hence, children's perceptions of parenting appear to be a key mechanism by which parenting exerts its influence.

*Limitations and Future Directions*

There are several limitations to the current research that point to avenues for future inquiry. First, the American and Chinese samples do not fully reflect the demographic variability in the two countries. The American sample was primarily European American (78%), with 16% being African American. There is evidence that African American parents tend to be more controlling than their European American counterparts (e.g., Dornbusch, Ritter, Leidermann, Roberts, & Fraleigh, 1987). Due to the relatively small sample of African Americans, the current research could not distinguish between European and African Americans to evaluate differences between the two. To ensure that the current

findings were not driven by the inclusion of African Americans, analyses were conducted without them, yielding practically identical patterns across analyses. Beyond ethnic composition, both American and Chinese mothers in the current sample had higher educational attainment than the national average. Given that lower parental education is often associated with stressful living conditions, which may lead to heightened controlling practices among parents (e.g., Dix, 1991; Tamis-LeMonda, Briggs, McClowry, & Snow, 2009), the current results may be limited to families within the higher stratum of educational attainment in which parents are less controlling.

Second, the current research also did not examine fathers' control and autonomy support. It is quite possible that mothers and fathers have disparate interactive styles with children, such that the role of their parenting in children's functioning also differs. For example, focusing on Chinese families, research indicates that mothers' and fathers' parenting practices (e.g., control and coercion) do not necessarily correspond (e.g., Chen, Dong, & Zhou, 1997; Nelson, Hart, Yang, Olsen, & Jin, 2006). Moreover, mothers' and fathers' controlling parenting vary in their associations with children's externalizing and internalizing symptoms (e.g., Chang, Schwartz, Dodge, & McBride-Chang, 2003; Chen et al., 1997). American and Chinese children may have different biases in reporting on fathers' controlling and autonomy-supportive parenting as there may be differences in the frequency with which such parenting occurs in the two countries.

Third, observations of controlling and autonomy-supportive parenting were conducted in the laboratory to ensure standardized environments for eliciting such parenting. However, as noted earlier, the laboratory setting may not reflect daily life for many families. For example, parents who are rarely involved in children's homework may feel compelled to become involved in children's work in the laboratory because of the lack of alternative activities—although we may have mitigated this to some extent by giving mothers the opportunity to examine children's prior work on the problems, which a substantial proportion of mothers did. Future research employing more ecologically valid methods, such as daily interview assessments (e.g., Pomerantz, 2001; Pomerantz, Wang, & Ng, 2005) and extended naturalistic observations in the home context (e.g., Miller, Wiley, Fung, & Liang, 1997), may provide a better window into the naturally occurring interactions between children and parents.

Fourth, the current research is limited in other ways. For one, it focused on parenting around academics. The academic arena was chosen because it has been argued that controlling practices in this arena may be seen as well intentioned in China, given the importance of learning in China (Pomerantz & Wang, 2009). However, it is unclear if controlling and autonomy-supportive parenting in other arenas of children's lives (e.g., in regard to children's choice of friends) plays a similar role in children's adjustment in the two countries. In addition, following much of the research comparing the predictive power of controlling parenting in the United States and China, we focused on children's academic and emotional functioning; it is possible that there may be more divergence for other types of functioning (e.g., antisocial or prosocial behaviors) among children. Moreover, we relied on children's reports of emotional functioning; consideration should be given to the possibility that American and Chinese children may be differently biased in reporting on such functioning. We studied only a thin slice of development: We chose to examine early adolescence because issues of children's autonomy are often particularly salient in the context of their relationships with parents (for a review, see Collins & Steinberg, 2006). Whether the similarity in the predictive power of controlling parenting in the United States and China generalizes to other phases of development is an important direction for future research.

### Conclusions

Despite these limitations, the findings of the current research make inroads into understanding the role of controlling and autonomy-supportive parenting in the United States and China. First, it indicates that American and Chinese children's reports of such parenting similarly correspond to mothers' and observers' reports. Hence, it does not appear that American and Chinese children are differentially biased in reporting on controlling and autonomy supportive parenting—at least by mothers. Second, regardless of whether children, mothers, or observers report on such parenting, it predicts children's academic and emotional functioning similarly in the two countries. Taken together, the findings serve to allay suspicion that American and Chinese children's reports of parenting do not similarly correspond to parents' actual practices, thereby creating problems in making comparisons. Moreover, the findings are consistent with the idea that heightened control and dampened autonomy

support among parents can undermine children's academic and emotional functioning in diverse environments, such as the United States and China, in which the significance placed on the autonomy of the individual appears to differ.

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### Supporting Information

Additional supporting information may be found in the online version of this article at the publisher's website:

**Data S1.** Parental Control

**Data S2.** Parental Autonomy Support



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