Parenting Goals and Parenting Styles among Taiwanese Parents: The Moderating Role of Child Temperament

Christine Meng
University of Wisconsin-Madison

The aim of this study was to understand the moderating role of child temperament in the relationship between parenting goals and parenting styles. To achieve that goal, this study tested the interaction between child temperament (emotionality, activity, sociability, and shyness) and parenting goals (parent-centered goals and child-centered goals) that predicted authoritative and authoritarian parenting styles. One hundred forty-eight Taiwanese parents with kindergarten children were recruited to complete self-report questionnaires. Results showed main effects of parenting goals and child temperament. Child-centered goals positively predicted authoritative parenting styles, but child emotionality negatively predicted authoritative parenting styles. Parent-centered goals positively predicted authoritarian parenting styles, but child emotionality positively predicted authoritarian parenting styles. Additionally, the results showed significant interaction effect between child-centered parenting goals and child activity in predicting parental warmth. That is, parents with child-centered goals were more likely to be warm when their children had higher levels of activity. The results showed that child temperament played a moderating role in parenting styles and parenting goals. Given that child-centered parenting goals interact with child activity, future research should further examine the bidirectional relationship between child-centered parenting goals and child activity.

Keywords: Parenting goals, Parenting styles, Child temperament, Socialization, Culture

Research has established an association between parenting goals and parenting styles. In Darling and Steinberg's (1993) contextual model of parenting style, parenting goals determined parenting styles and practices, which in turn shaped children's developmental outcomes. This view was consistent with earlier research that conceptualized parenting as goal-directed behaviors (e.g., Dix, 1992). These theoretical frameworks recognize that effectiveness of parenting depends on whether parents incorporate children's characteristics into parenting goals to ensure optimal development.

Even though existing research has documented the relationship between parenting goals and parenting styles, the question that has not been empirically examined is whether child temperament moderates the relationship between parenting goals and parenting styles. When child temperament is incorporated into parenting goals, parents with a shy child may be likely to have different parenting behaviors from those with an outgoing child. Since part of effective parenting is to incorporate a child's characteristics into parenting goals (Dix, 1992), child temperament may be an important factor in shaping parenting behaviors. In order to understand whether the linkage between parenting goals and parenting styles varies depending on a child's temperament, this study aims to replicate the previous research on parenting goals and parenting styles using a Taiwanese sample and extends the previous research by examining whether children's temperament moderates the relationship between parenting goals and parenting styles.

Parenting Goals

Parenting goals, broadly termed as socialization goals, include parent-centered goals and child-centered goals (Dix, 1992; Grusec, Rudy, & Martini, 1997). Parenting goals set the context of early socialization because they motivate parents to devise a series of action plans to achieve a particular goal (Dix, 1992; Grusec et al., 1997). Goals can be specific (e.g., teaching a child table manners) and general (e.g., teaching a child to be polite). As examples, parents who emphasize academic achievement are likely to enroll their children in education-oriented lessons; similarly, parents who emphasize independence and self-expression are likely to enroll their children in sports teams or art lessons (Chao, 2000; Jose, Huntsinger, Huntsinger, & Liaw, 2000).

The two parenting goals that are examined in the current study include parent-centered parenting goals and child-centered parenting goals. Parent-centered parenting goals refer to goals that meet the needs of the parents (e.g., establishing parental authority,

emphasizing child compliance), whereas child-centered parenting goals refer to goals that meet the needs of a child (e.g., encouraging the child to be independent, establishing positive self-esteem) (Dix, 1992; Hastings & Grusec, 1998). Parent-centered and child-centered parenting goals are closely aligned with authoritarian and authoritative parenting styles, respectively (Maccoby & Martin, 1983). Both authoritarian parenting and parent-centered goals emphasize compliance from the child and parental authority. On the other hand, authoritative parenting and child-centered goals view the child as an individual and respect the child's individual development.

The association between parenting goals and parenting styles in cultural contexts is well established in previous research. Using a sample of predominantly European Canadian mothers with preschoolers, a study showed that authoritative mothers were more likely to endorse child-centered goals than authoritarian mothers (Coplan, Hastings, Lagacé-Séguin, & Moulton, 2002). A cross-cultural study that examined goal-directed parenting behaviors between Chinese mothers and Canadian mothers found that Chinese mothers who incorporated traditional filial piety attitudes (e.g., obedience) as a part of their parenting goals were more likely to encourage their children to respect authority than Canadian mothers (Liu et al., 2005). Furthermore, a study that sampled a group of Hong Kong mothers reported that mothers who endorsed filial piety (i.e., obedience, respect authority) as socialization goals tended to be authoritarian and psychologically controlling (Chan, Bowes, & Wyver, 2009).

Child Temperament

Researchers who study child development have long recognized the influence of children's temperament characteristics (e.g., fussiness, emotionality, activity) on parenting (e.g., Lerner, 1993; Putnam, Sanson, & Rothbart, 2002). Buss and Plomin (1975) defined temperament as personality traits with underlying biological influences. Child temperament guides a child's developmental trajectory by either being receptive to or resistant to parental influences. Earlier research has shown that child temperament affects parent-child interactions. For instance, mothers with children who were high in negative emotions engaged in less guidance and used more control (Braungart-

Rieker, Garwood, & Stifter, 1997). Similarly, parents who perceived their children as more difficult were less likely to respond to and interact with their children (Belsky, 1984).

Research shows cross-cultural differences in temperament dimensions. For instance, Chinese toddlers demonstrated a higher level of behavioral inhibition than Canadian toddlers (Chen et al., 1998). Such cultural difference in temperament dimensions may be influenced by parental preference of one temperamental dimension over another. In Eastern cultures where achieving maturity and mastering self-control are emphasized, a well-behaved child is someone who is shy, cautious, and behaviorally inhibited (Chen et al., 1998; Wang, Chen, Chen, Cui, & Li, 2006). Therefore, children who exhibit negative emotions and disobedience tend to be perceived as difficult by Chinese parents. These children also tend to be punished. On the contrary, Chinese toddlers' behavioral inhibition is positively related to mothers' acceptance and encouragement of independence, and negatively related to mothers' rejection and punishment (e.g., Chen et al., 1998). Additionally, children's activity is positively related to authoritative parenting, but not authoritarian parenting, among a sample of Mainland Chinese mothers (Porter et al., 2005). Similarly, children's sociability is associated with authoritative parenting in a Taiwanese sample (Chen & Luster, 2002). Overall, the findings of these studies demonstrate that in collectivist cultures, children who are disobedient and unable to control negative emotions (e.g., anger) tend to receive punishment or other disciplinary actions. However, shyness, sociability, and activity among children are associated with parental encouragement and authoritative parenting.

The Current Study

One of the aims of this study was to replicate the previous research on parenting goals and parenting styles in a sample of Taiwanese parents. In light of the previous research on the link between parenting goals and parenting styles (Rao, McHale, & Pearson, 2003), it was expected thatparent-centered goals that emphasized obedience and respect for authority would negatively predict authoritative parenting and positively predict authoritarian parenting. It was also expected that child-centered goals that emphasized

children's social relations and psychological well-being would positively predict authoritative parenting and negatively predict authoritarian parenting.

Based on previous research (Wang et al., 2006), it was expected that children's negative emotionality would negatively predict authoritative parenting and positively predict authoritarian parenting. In accordance with previous research (Porter et al., 2005), children's activity level was expected to positively predict authoritative parenting, but negatively predict authoritarian parenting. Children's sociability was expected to positively predict authoritative parenting, but negatively predict authoritarian parenting. Consistent with prior research that showed parents of shy children tended to be more encouraging and less controlling in collective cultures (Wang et al., 2006), children's shyness was expected to negatively predict authoritarian parenting, but positively predict authoritative parenting.

To extend the current research on parenting styles and parenting goals, a second aim of this study was to examine the moderating role of child temperament. Various studies have examined the moderating role of child temperament in relation to parenting behaviors. For instance, a study that used a sample of second-generation Turkish mothers with two-year-old children showed that lower levels of positive parenting predicted increased aggression among children with difficult temperament, or essentially negative emotionality (Yaman, Mesman, van IJzendoorn, & Bakermans-Kranenburg, 2010). Additionally, a study (Stright, Gallagher, & Kelley, 2008) reported that children with difficult temperament had better first-grade school adjustment than children with easy temperament when the parenting quality was high, but children of difficult temperament had poorer school adjustment when the parenting quality was low. These findings are consistent with the idea that children's behaviors are the result of the interaction between children's temperament characteristics and family environment (Pade, Taube, Aalborg, & Reiser, 2006). Thus, the second aim of this study was based on the child temperament-family environment interaction.

In this study, emotionality is defined as the tendency to be easily distressed (Zentner & Bates, 2008). Activity is defined as the amount of energy that a child exhibits (Zentner & Bates, 2008). Sociability is defined as the preference for affiliation and people (Cheek & Buss, 1981). Shyness is defined as the feelings of discomfort and behavioral inhibition in the presence of people (Cheek & Buss, 1981). With respect to the moderating role of child temperament, it was expected that the relationship between parenting goals and parenting styles was likely to vary depending on child temperament, such that parents with child-centered goals were more likely to be authoritative when their children had easy temperament (i.e., low in negative emotionality and shyness, but high in activity level and sociability) than parents with parent-centered goals. On the contrary, parents with parent-centered goals were expected to be more authoritarian when their children had difficult temperament (i.e., high in negative emotionality and shyness, but low in activity level and sociability) than parents with child-centered goals.

Method

Participants

The participants (117 mothers and 31 fathers) were 148 Taiwanese parents (mean age = 37.28 years, SD = 12.46 years; mean length of marriage = 13 years, SD = 18.30 years). Ninety-four percent of the participants were married (n = 139). Among those who were not married, five participants were divorced, two were separated, and two were single parents. Forty-eight participants had associate degrees. Other educational levels included bachelor's degrees (n = 43), high school degrees (n = 40), and graduate degrees (n = 17). All of the participants had at least one kindergartener (age between two to six) at home. The mean age of the kindergarteners was 4.9 years (SD = 1.19 years).

Procedure

Participants were recruited from two kindergartens in Taiwan as convenience samples to complete survey questionnaires. Subsequent analysis showed no significant differences in the socioeconomic backgrounds of the participants from the two recruitment sites. Permission to recruit participants was obtained from the two kindergarten principals. Surveys were distributed in the kindergarten classes. Children were asked to take the survey home to their parents. After the parents filled out the survey, they put the survey into an envelope and sealed it. The children then returned the completed survey to their teacher. Researchers then collected the surveys from the kindergarten teachers. The questionnaire return rate was 64 percent.

Measures

All measurements were translated into Chinese. An independent translator checked the Chinese version of the survey against the original measurements to ensure the integrity of the translated survey. Any discrepancy as a result of translation was resolved through discussions with the independent translator. The measurements were rotated to avoid the order effect.

Socialization Goal Scale (Rao et al., 2003). This measure was used to assess parent-centered goals and child-centered goals. The scale had two subscales of filial piety and socio-emotional development. With eight items, filial piety assessed parent-centered goals that emphasized family harmony, parent authority, and respect for elderly (e.g., "*I want my child to respect our family's honour,*" "*I want my child to listen to his/her elders*"). Socio-emotional development assessed child-centered goals that emphasized children's social and emotional development with ten items (e.g., "*I want my child to achieve emotional independence,*" "*I want my child to love and care for other people*"). The response options for the two subscales ranged from 1 (*strongly disagree*) to 6 (*strongly agree*), such that higher scores represented parents' higher levels of the socialization goals for their child. The mean of each subscale was calculated separately. The scale had been used in a similar sample of Mainland China Chinese mothers and showed moderate to high reliabilities (Rao et al., 2003; $\alpha = .77$ for the filial piety socialization goal and .96 for the socio-emotional development socialization goal). The scale showed moderate internal consistency in the current sample ($\alpha = .88$ for the filial piety socialization goal and .83 for the socio-emotional development socialization goal).

Emotionality, Activity, and Sociability (EAS) Temperament Survey for Children (Buss & Plomin, 1984, 1986). This measure was used to assess children's emotionality, activity (i.e., energy level), sociability, and shyness. Children's emotionality assessed negative emotions, fussiness, and tendency to react negatively with five items (e.g., "*My child cries easily*"). Activity assessed children's motor activity and energy level with five items (e.g., "*My child is always on the go*"). Sociability assessed children's responsiveness in interactions with five items (e.g., "*My child likes to be with people*"). Shyness assessed children's shyness in interactions with five items (e.g., "*My child tends to be shy*"). The response options for all of the scales ranged from 1 (*not typical of my child*) to 5 (*very typical of my child*). The mean of each scale was calculated separately. Higher respective scores indicated children's tendency to demonstrate negative emotionality, high activity level, high sociability, and the tendency to be shy. The scale had been used in a sample of Mainland China Chinese parents and found that confirmatory factor analysis supported the three temperament dimensions of emotionality, activity, and sociability (Porter et al., 2005). The current study tested the four-dimensions of child temperament because prior research indicated that sociability and shyness might be distinct temperament dimensions (Bruch, Gorsky, Collins, & Berger, 1989; Cheek & Buss, 1981). The current sample found moderate internal consistency for all the scales ($\alpha = .78$ for emotionality, .51 for activity, .68 for sociability, and .70 for shyness).

Parenting Styles and Dimensions Questionnaire (PSDQ; Robinson, Mandleco, Olsen, & Hart, 2001) This measure was used to assess parents' authoritative and authoritarian parenting styles. A similar sample of Mainland China Chinese children between four and six years old has been assessed with this measure (Porter et al., 2005). Authoritative parenting style was assessed with four subscales of warmth and involvement (eleven items; e.g., "*I encourage our child to talk about the child's troubles*"), reasoning and induction (seven items; e.g., "*I tell our child our expectations regarding behavior before the child engages in an activity*"), democratic participation (five items; e.g., "*I allow our child to give input into family rules*"), and good natured and easygoing (four items; e.g., "*I joke and play with our child*"). Authoritarian parenting style was assessed with four subscales that included verbal hostility (four items; e.g., "*I yell or shout when our child misbehaves*"), corporal punishment (six items; e.g., "*I guide our child by punishment more than by reason*"), nonreasoning and punitive strategies (six items; e.g., "*I punish by taking privileges away from our child with little if any explanations*"), and directiveness (four items; e.g., "*I tell our child what to do*"). The response options for all of the scales ranged from 1 (*never*) to 5 (*always*). The mean of each subscale was calculated separately. Total scores for the authoritative and authoritarian parenting style were averaged across its subscales. Higher respective scores indicated stronger authoritative

and authoritarian parenting styles. The authoritative parenting style showed good internal consistency in the current sample (α = .91). Its subscales showed moderate internal consistency (α = .76 for warmth and involvement, .76 for reasoning and induction, .72 for democratic participation, and .67 for good natured and easygoing). The authoritarian parenting style also showed moderate internal consistency (α = .81). Its subscales showed moderate internal consistency (α = .58 for verbal hostility, .70 for corporal punishment, .62 for nonreasoning and punitive strategies, and .50 for directiveness).

Results

A series of multiple regression analyses were conducted to test the hypotheses. Table A1 presents the correlations among the variables, as well as the means and the standard deviations. Parenting goals and child temperament were first separately entered into the models to examine their unique contributions, resulting in four models for the parenting total scales and sixteen models for the parenting sub-scales. Parenting goals, child temperament, and the interaction terms were then entered into the models to examine their joint contributions, resulting in two models for the parenting total scales and eight models for the parenting sub-scales. Children's age was entered into the models that examined unique contributions of parenting goals and child temperament as a controlling variable. Parent-centered goals and child-centered goals were assessed with filial piety socialization goals and socio-emotional development socialization goals, respectively. When significant interaction terms emerged, post-hoc probing was performed using Holmbeck's (2002) guidelines.

Parenting Goals and Parenting Styles

When predicting authoritative parenting style and its sub-scales, socio-emotional development (child-centered goal) consistently emerged as the significant predictor (Model 2 in Table A2, left-hand column; Model 2 in Tables A3 and A4). Socio-emotional development positively predicted authoritative parenting, β = .41, $t(147)$ = 4.34, p < .001; warmth/involvement, β = .40, $t(147)$ = 4.21, p < .001; reasoning/induction, β = .32, $t(147)$ = 3.30, p < .01; democratic participation, β = .39, $t(147)$ = 4.22, p < .001; and good natured/easygoing, β =

.28, $t(147)$ = 2.91, p < .01. Filial piety (parent-centered goal) significantly and negatively predicted democratic participation, β = -.23, $t(147)$ = -2.44, p < .05.

With respect to authoritarian parenting and its sub-scales, filial piety emerged as a significant predictor (Model 2 in Table A2, right-hand column; Model 2 in Tables A5 and A6). In particular, filial piety positively predicted authoritarian parenting, β = .32, $t(147)$ = 3.28, p < .01; verbal hostility, β = .21, $t(147)$ = 2.12, p < .05; nonreasoning, β = .22, $t(147)$ = 2.20, p < .05; and directiveness β = .40, $t(147)$ = 4.29, p < .001.

Child Temperament and Parenting Styles

Emotionality was consistently the significant predictor of authoritative parenting style and its sub-scales (Model 1 in Table A2, left-hand column; Model 1 in Tables A3 and A4). Specifically, emotionality negatively predicted authoritative parenting, β = -.32, $t(147)$ = 3.98, p < .001; warmth/involvement, β = -.30, $t(147)$ = -3.81, p < .001; reasoning/induction, β = -.26, $t(147)$ = -3.21, p < .01; democratic participation, β = -.26, $t(147)$ = -3.21, p < .01; and good natured/easygoing, β = -.28, $t(147)$ = -3.36, p < .01. Child age, as the controlling variable, was also a negative predictor of democratic participation, β = -.22, $t(147)$ = -2.67, p < .01. It appeared that as children aged every month, there was a .22 decrease in democratic participation.

Regarding authoritarian parenting style and its sub-scales, emotionality and shyness were significant predictors (Model 1 in Table A2, right-hand column; Model 1 in Tables A5 and A6). Emotionality positively predicted authoritarian parenting, β = .26, $t(147)$ = 3.08, p < .01; verbal hostility, β = .34, $t(147)$ = 4.21, p < .001; and corporal punishment, β = .27, $t(147)$ = 3.25, p < .01. Shyness positively predicted nonreasoning, β = .24, $t(147)$ = 2.53, p < .05.

Parenting Goals and Child Temperament

Seven significant interactions emerged that predicted authoritative parenting and its subscales. The interaction between activity and filial piety significantly predicted authoritative parenting, β = -2.57, $t(147)$ = -2.34, p < .05. The interaction between activity and socio-emotional development significantly predicted authoritative parenting, β = 3.49, $t(147)$ = 2.63, p < .01. The interaction between activity and socio-emotional development significantly predicted warmth/involvement, β = 3.28, $t(147)$ = 2.46, p < .05.

Three significant interactions emerged that predicted reasoning/induction: activity x filial piety, β = -3.48, $t(147)$ = -3.09, p < .01; activity x socio-emotional development, β = 4.16, $t(147)$ = 3.05, p < .01; and sociability x socio-emotional development, β = -3.52, $t(147)$ = -2.41, p < .05. Finally, the interaction between activity and filial piety significantly predicted democratic participation, β = -2.87, $t(147)$ = -2.52, p < .05. Post-hoc probing of the interaction terms showed one significant interaction. Socio-emotional development was related to warmth/involvement as a function of children's activity level, t (144) = 4.59, p < .001 (see Figure 1). Warmth/involvement tended to be higher at higher levels of socio-emotional developmental goals when children's level of activity was high.

Discussion

This study used a Taiwanese sample to examine parenting goals and parenting styles, as well as the moderating role of child temperament between parenting goals and parenting styles. The results showed that parents of children who were easily distressed were more likely to be authoritarian and less likely to be authoritative. Additionally, parents with child-centered parenting goals were more likely to demonstrate authoritative parenting, whereas parents with parent-centered parenting goals were more likely to demonstrate authoritarian parenting. Finally, parents with child-centered parenting goals tended to exhibit a high level of warmth and involvement when the child had a high activity level.

Parenting Goals and Parenting Styles

This study demonstrated that child-centered parenting goals were associated with authoritative parenting styles, whereas parent-centered parenting goals were associated with authoritarian parenting styles. These findings are consistent with previous research (e.g., Chan et al., 2009; Coplan et al., 2002; Li, Costanzo, & Putallaz, 2010). Positive parent-child interactions and optimal child development depend on whether parents incorporate children's developmental trajectories into parenting goal structures (Dix, 1992). Furthermore, to be a sensitive parent means to appropriately respond to children's social and emotional needs (Bowlby, 1969/1982; McElwain &

Figure 1. Socio-emotional socialization goal by child activity for warmth/involvement.
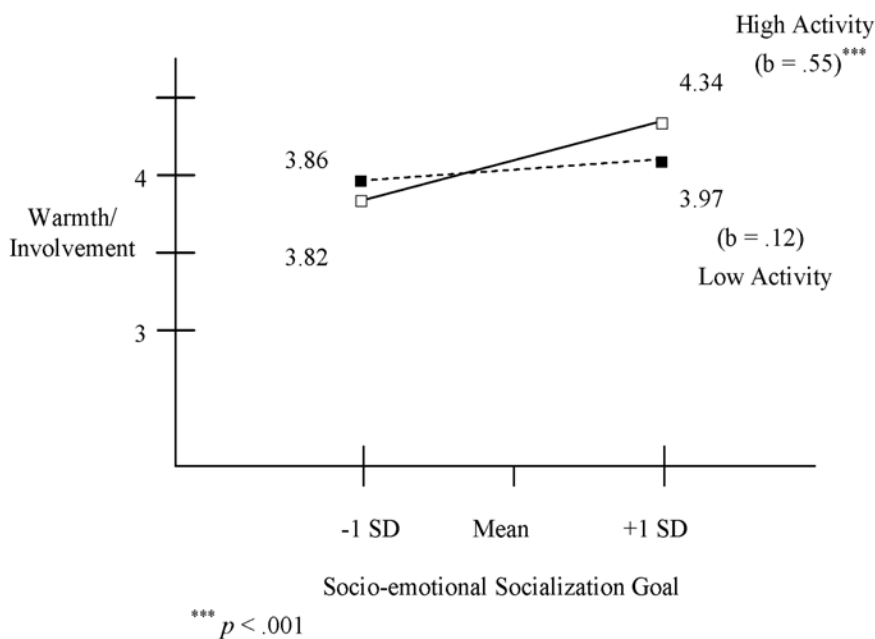

Figure 1. Socio-emotional socialization goal by child activity for warmth/involvement.

Volling, 2004). This study shows that parents with child-centered parenting goals incorporate children's social development and psychological well-being as a part of their parenting goals. These parents tend to have egalitarian relationships with their children and welcome their children's participation in the decision-making process (Robinson, Mandleco, Olsen, & Hart, 1995). These parents are also less likely to emphasize parental control and demand obedience from the child (Chan et al., 2009).

On the other hand, this study showed that parents with parent-centered parenting goals tended to demonstrate authoritarian parenting styles. Parent-centered parenting goals were measured as filial piety socialization goals (e.g., "I *want my child to respect our family's honour,*" "*I want my child to listen to his/her elders*"). As filial piety is a part of the Confucian concept of respecting parental power (Ho, 1996), parents who embrace filial piety as a parenting goal may be more likely to be authoritarian.

Child Temperament and Parenting Styles

With respect to the relationship between child temperament and parenting styles, this study showed that parents with children who were easily distressed were more likely to be authoritarian and less authoritative. These findings are consistent with prior research (e.g., Chen et al., 1998; Chen & Luster, 2002; Porter et al., 2005). This is perhaps because authoritarian parenting styles allow parents to achieve immediate results, even though authoritarian parenting styles have negative effects on children's emotionality (e.g., anger) and aggressive behaviors (Chan, 2010; Jones, Eisenberg, Fabes, & MacKinnon, 2002; Porter et al., 2005). These findings may also be because emotionally difficult children tend to be perceived as lacking self-control over emotions; the strategies that parents use to assert power may function as an external control for these children (Atzaba-Poria & Pike, 2008; van der Bruggen, Stams, Bögels, & Paulussen-Hoogeboom, 2010). However, the directionality between emotionality and parental control remains to be explored. Future research needs to examine whether emotionality elicits parental control or vice versa.

Parenting Goals and Child Temperament

In addition to the unique contribution of parenting goals and children's negative emotionality, this study found several interactions between parenting goals and child temperament. In particular, the relationship between socio-emotional development socialization goals and parents' warmth/involvement varied depending on children's activity level. This finding may be because children's temperament makes it easier for parents to incorporate children's unique personality attributes as a part of their parenting goals. It may also be that these parents are more sensitive to children's emotional and behavioral cues. Prior research shows that parental sensitivity to children's social and emotional development is beneficial to children's school adjustment (Coplan, Arbeau, & Armer, 2008) and peer relations (McElwain, & Volling, 2004). Furthermore, it has been documented that the interaction between child temperament and contextual factors (e.g., child gender, social support) differentially predicts parental sensitivity (Crockenberg, 1986). In this sense, parental sensitivity may be an underlying mechanism in how parents set up socialization goals. Future research should consider parental sensitivity in relation to parent-centered and child-centered goals.

Limitations

This study is not without limitations. It is limited in its use of single method and single source. The study design was cross-sectional. Furthermore, given the exploratory nature of the study, the results were based on a series of correlation analyses. This study also used convenience sampling without randomization. Given that this study is not experimental, causality cannot be concluded from this study's design and analysis. Additionally, the less than satisfactory reliabilities of the measures, particularly the authoritarian subscales, may be the result of translation since this study did not use back translation. As a result, findings associated with the authoritarian subscales should be interpreted with caution in regards to the low reliability coefficients. Finally, the English version of the measure and the translated measures have not been validated in the Taiwanese population. Future research needs to establish the validity of the measures in a Taiwanese sample.

Future Research Directions

In sum, this study supported the findings of the

previous research by showing that authoritative and authoritarian parenting styles were influenced by child-centered parenting goals and parent-centered parenting goals, respectively. Furthermore, this study extended previous research with evidence that demonstrated that child activity moderated the relationship between socio-emotional socialization goals and parental warmth/involvement. The interaction between child temperament and socio-emotional socialization goals seems to suggest a potential bidirectional relationship between child temperament and parenting goals. Future research could consider the long-term bidirectional process between child temperament and parenting goals and examine how the child temperament-family environment interaction is related to child behavior outcomes. Finally, regardless of the limitations, the strength of this study is the use of a Taiwanese sample, which to the author's knowledge has not been studied in this fashion before. This study not only replicated previous studies, but also extended existing research by examining the child-family environment interaction with the Taiwanese sample. Fertile ground may exist for future research in comparing the child temperament-family environment interaction between individualist cultures and collectivist cultures.

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Appendix

Table 1

Intercorrelations of Parenting Styles, Child Temperament, and Parenting Goals   (N = 148)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Parenting styles																
1. Authoritative	--	.93**	.88**	.86**	.78**	-.13	-.06	-.20*	-.25**	.21**	-.30**	.14	.15	-.22**	.06	.32**
2. Warmth/Involvement		--	.75**	.69**	.68**	-.13	-.03	-.20*	-.23**	.17*	-.29**	.13	.17*	-.23**	.06	.31**
3. Reasoning/Induction			--	.70**	.53**	.00	.02	-.14	-.16	.39**	-.25**	.14	.19*	-.22**	.11	.28**
4. Democratic participation				--	.64**	-.14	-.08	-.10	-.24**	.07	-.24**	.12	.07	-.13	-.02	.28**
5. Good natured/Easygoing					--	-.26**	-.19*	-.31**	-.25**	.05	-.26**	.09	.05	-.13	-.03	.22**
6. Authoritarian						--	.76**	.80**	.75**	.59**	.26**	.02	.09	.08	.28**	.10
7. Verbal hostility							--	.55**	.39**	.34**	.35**	-.04	-.03	.13	.25**	.22**
8. Corporal punishment								--	.44**	.29**	.26**	-.01	.00	.05	.04	-.11
9. Nonreasoning/Punitive strategies									--	.24**	.16	-.10	.05	.21*	.20*	.09
10. Directiveness										--	.01	.25**	.27**	-.20*	.38**	.17*
Child temperament																
11. Emotionality											--	-.04	.11	.09	.06	.02
12. Activity												--	.52**	-.46**	.07	-.02
13. Sociability													--	-.42**	.19*	.07
14. Shyness														--	-.06	.05

Intercorrelations of Parenting Styles, Child Temperament, and Parenting Goals   (Continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Parenting goals																
15. Filial piety (parent-centered goals)															--	.55**
16. Socio-emotional development (child-centered goals)																--
Mean	3.89	4.00	3.86	3.68	3.90	2.40	2.42	2.08	2.00	3.46	3.16	3.95	3.87	2.64	5.01	5.40
SD	.51	.51	.59	.70	.59	.43	.61	.55	.57	.61	1.11	.77	.63	.98	.52	.47

**p < .01
*p < .05

Table 2

Linear Regression Analyses of the Authoritative and Authoritarian Total Scales (N = 148)

	Authoritative Total Scale						Authoritarian Total Scale					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
	B		B		B		B		B		B	
	(SE)	β	(SE)	β	(SE)	β	(SE)	β	(SE)	β	(SE)	β
Emotionality	-.15	-.32***			-.00	-.01	.10	.26**			-.44	-1.13
	(.04)				(.46)		(.03)				(.43)	
Activity	-.02	-.03			-.67	-1.02	.03	.05			-.72	-1.30
	(.06)				(.75)		(.06)				(.70)	
Sociability	.12	.15			-.50	-.62	.05	.08			.75	1.11
	(.08)				(.89)		(.07)				(.83)	
Shyness	-.08	-.15			-.38	-.73	.05	.12			.24	.55
	(.05)				(.57)		(.04)				(.53)	
Age (preschooler)	-.00	-.11					.00	.07				
	(.00)						(.00)					
Filial piety[a]			-.16	-.17	.34	.35			.26	.32**	.36	.44
			(.09)		(.67)				(.08)		(.63)	
Socio-emotional[b]			.44	.41***	-1.04	-.97			-.06	-.07	-.42	-.47
			(.10)		(.71)				(.09)		(.66)	
Age (preschooler)			-.00	-.02	-.00	-.11			.00	.01	-.00	.05
			(.00)		(.00)				(.00)		(.00)	
Emotionality*filial piety					-.05	-.56					.02	.30
					(.09)						(.09)	
Emotionality* Socio-emotional development					.02	.23					.08	1.11
					(.10)						(.09)	
Activity*filial piety					-.29	-2.57*					-.09	-.91
					(.13)						(.12)	
Activity* socio-emotional development					.39	3.49**					.22	2.30
					(.15)						(.14)	
Sociability*filial piety					.22	1.72					.07	.62
					(.17)						(.16)	
Sociability* socio-emotional development					-.08	-.65					-.19	-1.79
					(.18)						(.17)	
Shyness*filial piety					-.04	-.40					-.03	-.40
					(.11)						(.10)	
Shyness* socio-emotional development					.09	1.00					-.00	-.04
					(.11)						(.10)	
R^2	.15***		.12***		.33***		.09*		.08**		.18*	

***$p < .001$

**$p < .01$

*$p < .05$

[a]. Parent-centered goals

[b]. Child-centered goals

Table 3

Linear Regression Analyses of the Authoritative Sub-scales (N = 148)

	Warm Involvement						Reasoning / Induction					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
	B (SE)	β	B (SE)	β	B (SE)	β	B (SE)	β	B (SE)	β	B (SE)	β
Emotionality	-.14 (.04)	-.30***			.21 (.46)	.47	-.14 (.04)	-.26**			-.21 (.55)	-.39
Activity	-.03 (.06)	-.05			-1.14 (.75)	-1.73	-.03 (.08)	-.04			-.69 (.90)	-.90
Sociability	.13 (.08)	.16			-1.03 (.89)	-1.27	.17 (.09)	.18			1.32 (1.07)	1.41
Shyness	-.08 (.05)	-.16			-.41 (.58)	-.79	-.08 (.06)	-.14			-.35 (.69)	-.58
Age (preschooler)	-.00 (.00)	-.06					-.00 (.00)	-.02				
Filial piety[a]			-.16 (.09)	-.16	.01 (.68)	.01			-.07 (.11)	-.07	.86 (.81)	.76
Socio-emotional[b]			.43 (.10)	.40***	-1.37 (.72)	-1.27			.40 (.12)	.32**	-.37 (.86)	-.30
Age (preschooler)			.00 (.00)	.04	-.00 (.00)	-.06			.00 (.00)	.05	-.00 (.00)	-.03
Emotionality*filial piety					-.07 (.09)	-.76					-.18 (.11)	-1.77
Emotionality*socio-emotional development					-.00 (.10)	-.05					.18 (.12)	1.87
Activity*filial piety					-.17 (.13)	-1.50					-.46 (.15)	-3.48**
Activity*socio-emotional development					.37 (.15)	3.28*					.55 (.18)	4.16**
Sociability*filial piety					.16 (.17)	1.30					.34 (.20)	2.36
Sociability*socio-emotional development					.07 (.18)	.52					-.53 (.22)	-3.52*
Shyness*filial piety					.00 (.11)	.01					-.00 (.13)	-.02
Shyness*socio-emotional development					.06 (.11)	.65					.04 (.13)	.42
R^2	.15***		.11***		.33***		.12**		.08**		.29***	

***$p < .001$

**$p < .01$

*$p < .05$

[a]. Parent-centered goals

[b]. Child-centered goals

Table 4

Linear Regression Analyses of the Authoritative Sub-scales (N = 148)

	Democratic Participation						Good Natured / Easygoing					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
	B (SE)	β	B (SE)	β	B (SE)	β	B (SE)	β	B (SE)	β	B (SE)	β
Emotionality	-.16 (.05)	-.26**			-.02 (.66)	-.04	-.15 (.04)	-.28**			-.22 (.58)	-.41
Activity	.01 (.09)	.01			.72 (1.07)	.80	-.00 (.08)	-.00			-1.08 (.94)	-1.40
Sociability	.08 (.11)	.07			-1.00 (1.27)	-.90	.04 (.09)	.05			-1.59 (1.12)	-1.69
Shyness	-.06 (.07)	-.09			-.84 (.82)	-1.18	-.06 (.06)	-.09			.23 (.72)	.38
Age (preschooler)	-.01 (.00)	-.22**					-.01 (.00)	-.13				
Filial piety[a]			-.31 (.13)	-.23*	.52 (.96)	.39			-.14 (.11)	-.12	.12 (.85)	.11
Socio-emotional[b]			.59 (.14)	.39***	-.71 (1.02)	-.48			.36 (.12)	.28**	-1.74 (.90)	-1.38
Age (preschooler)			-.01 (.00)	-.14	-.01 (.00)	-.20*			-.00 (.00)	-.06	-.00 (.00)	-.11
Emotionality*filial piety					.03 (.13)	.21					.14 (.12)	1.33
Emotionality* socio-emotional development					-.05 (.14)	-.42					-.12 (.12)	-1.19
Activity*filial piety					-.45 (.18)	-2.87*					-.13 (.16)	-.99
Activity* socio-emotional development					.28 (.21)	1.82					.33 (.19)	2.49
Sociability*filial piety					.28 (.24)	1.62					.06 (.21)	.40
Sociability* socio-emotional development					-.06 (.26)	-.32					.25 (.23)	1.66
Shyness*filial piety					-.10 (.16)	-.71					-.15 (.14)	-1.25
Shyness* socio-emotional development					.23 (.16)	1.81					.09 (.14)	.82
R^2	.12**		.14***		.28***		.10*		.06*		.23**	

***$p < .001$

**$p < .01$

*$p < .05$

[a]. Parent-centered goals

[b]. Child-centered goals

Table 5

Linear Regression Analyses of the Authoritarian Sub-scales (N = 148)

	Verbal Hostility						Corporal Punishment					
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3	
	B (SE)	β	B (SE)	β	B (SE)	β	B (SE)	β	B (SE)	β	B (SE)	β
Emotionality	.19 (.05)	.34***			-.13 (.60)	-.23	.13 (.04)	.27**			-.54 (.57)	-1.09
Activity	.04 (.08)	.05			.50 (.98)	.63	.04 (.07)	.05			-.29 (.93)	-.40
Sociability	-.04 (.09)	-.04			-.42 (1.16)	-.43	-.04 (.09)	-.05			-.41 (1.10)	-.48
Shyness	.06 (.06)	.10			.88 (.75)	1.41	.02 (.05)	.03			-.01 (.71)	-.01
Age (preschooler)	-.00 (.00)	-.04					.00 (.00)	.09				
Filial piety[a]			.24 (.11)	.21*	.43 (.88)	.36			.16 (.11)	.15	.17 (.84)	.16
Socio-emotional[b]			.13 (.13)	.10	.27 (.93)	.21			-.23 (.12)	-.19	-1.13 (.89)	-.97
Age (preschooler)			-.00 (.00)	-.10	-.00 (.00)	-.06			.00 (.00)	.02	.00 (.00)	.05
Emotionality*filial piety					-.08 (.12)	-.75					.05 (.12)	.50
Emotionality*socio-emotional development					.13 (.13)	1.31					.08 (.12)	.90
Activity*filial piety					-.16 (.16)	-1.17					-.14 (.16)	-1.17
Activity*socio-emotional development					.06 (.20)	.44					.19 (.19)	1.56
Sociability*filial piety					.27 (.22)	1.77					.14 (.21)	1.03
Sociability*socio-emotional development					-.19 (.24)	-1.21					-.06 (.23)	-.41
Shyness*filial piety					-.13 (.15)	-1.11					-.05 (.14)	-.47
Shyness*socio-emotional development					-.03 (.14)	-.27					.05 (.14)	.55
R^2	.13**		.08**		.23**		.07		.03		.13	

***$p < .001$

**$p < .01$

*$p < .05$

[a]. Parent-centered goals

[b]. Child-centered goals

Table 6

Linear Regression Analyses of the Authoritarian Sub-scales (N = 148)

	Nonreasoning						Directiveness					
	Model 1			Model 2			Model 3			Model 1		Model 2
	B			B			B			B		B
	(SE)	β		(SE)	β		(SE)	β		(SE)	β	(SE)	β

	Nonreasoning Model 1 B (SE)	β	Nonreasoning Model 2 B (SE)	β	Nonreasoning Model 3 B (SE)	β	Directiveness Model 1 B (SE)	β	Directiveness Model 2 B (SE)	β	Directiveness Model 3 B (SE)	β
Emotionality	.06 (.04)	.12			-.26 (.59)	-.49	.01 (.05)	.02			-.85 (.57)	-1.56
Activity	-.04 (.08)	-.06			-1.35 (.96)	-1.81	.12 (.08)	.15			-1.66 (.94)	-2.10
Sociability	.15 (.09)	.16			1.85 (1.14)	2.03	.15 (.10)	.16			2.04 (1.11)	2.12
Shyness	.14 (.06)	.24*			-.27 (.74)	-.46	-.04 (.06)	-.07			.72 (.72)	1.17
Age (preschooler)	.00 (.00)	.05					.00 (.00)	.10				
Filial piety[a]			.24 (.11)	.22*	.68 (.86)	.62			.46 (.11)	.40***	.11 (.84)	.09
Socio-emotional[b]			-.03 (.12)	-.03	-.59 (.91)	-.48			-.05 (.12)	-.04	.19 (.89)	.15
Age (preschooler)			.00 (.00)	.02	.00 (.00)	.05			.00 (.00)	.07	.00 (.00)	.08
Emotionality*filial piety					.05 (.12)	.46					.05 (.12)	.48
Emotionality* socio-emotional development					.02 (.12)	.17					.11 (.12)	1.12
Activity*filial piety					-.04 (.16)	-.34					.01 (.16)	.05
Activity* socio-emotional development					.28 (.19)	2.21					.32 (.19)	2.38
Sociability*filial piety					-.10 (.21)	-.70					-.00 (.21)	-.02
Sociability* socio-emotional development					-.23 (.23)	-1.56					-.36 (.23)	-2.31
Shyness*filial piety					-.01 (.14)	-.06					.05 (.14)	.45
Shyness* socio-emotional development					.08 (.14)	.78					-.19 (.14)	-1.74
R²	.08		.04		.15		.10**		.15***		.27***	

***p < .001

**p < .01

* p < .05

[a]. Parent-centered goals

[b]. Child-centered goals