


# Cross-Cultural Associations of Four Parenting Behaviors With Child Flourishing: Examining Cultural Specificity and Commonality in Cultural Normativeness and Intergenerational Transmission Processes

W. Andrew Rothenberg 

*Duke University and University of Miami Miller School of Medicine*

Jennifer E. Lansford 

*Duke University*

Marc H. Bornstein 

*Eunice Kennedy Shriver National Institute of Child Health and Human Development and UNICEF and Institute for Fiscal Studies*

Liliana Maria Uribe Tirado

*Universidad de San Buenaventura*

Saengduean Yotanyamaneewong  
*Chiang Mai University*

Liane Peña Alampay  
*Ateneo de Manila University*

Suha M. Al-Hassan

*Hashemite University and Emirates College for Advanced Education*

Dario Bacchini

*University of Naples "Federico II"*

Lei Chang

*University of Macau*

Kirby Deater-Deckard

*University of Massachusetts Amherst*

Laura Di Giunta

*Università di Roma "La Sapienza"*

Kenneth A. Dodge 

*Duke University*

Sevtap Gurdal

*University West*

Qin Liu

*Chongqing Medical University*

Qian Long

*Duke Kunshan University*

Patrick S. Malone

*Duke University*

Paul Oburu

*Maseno University*

Concetta Pastorelli

*Università di Roma "La Sapienza"*

Ann T. Skinner

*Duke University*

Emma Sorbring

*University West*

Sombat Tapanya

*Chiang Mai University*

Laurence Steinberg

*Temple University and King Abdulaziz University*

Families from nine countries ( $N = 1,338$ ) were interviewed annually seven times ( $M_{\text{age child}} = 7\text{--}15$ ) to test specificity and commonality in parenting behaviors associated with child flourishing and moderation of associations by normativeness of parenting. Participants included 1,338 children ( $M = 8.59$  years,  $SD = 0.68$ , range = 7–11 years; 50% girls), their mothers ( $N = 1,283$ ,  $M = 37.04$  years,  $SD = 6.51$ , range = 19–70 years), and their fathers ( $N = 1,170$ ,  $M = 40.19$  years,  $SD = 6.75$ , range = 22–76 years) at Wave 1 of 7 annual waves collected between 2008 and 2017. Families were recruited from 12 ethnocultural groups in nine countries

including: Shanghai, China ( $n = 123$ ); Medellín, Colombia ( $n = 108$ ); Naples ( $n = 102$ ) and Rome ( $n = 111$ ), Italy; Zarqa, Jordan ( $n = 114$ ); Kisumu, Kenya ( $n = 100$ ); Manila, Philippines ( $n = 120$ ); Trollhättan & Vänersborg, Sweden ( $n = 129$ ); Chiang Mai, Thailand ( $n = 120$ ); and Durham, NC, United States ( $n = 110$  White,  $n = 102$  Black,  $n = 99$  Latinx). Intergenerational parenting (parenting passed from Generation 1 to Generation 2) demonstrated specificity. Children from cultures with above-average G2 parent warmth experienced the most benefit from the intergenerational transmission of warmth, whereas children from cultures with below-average G2 hostility, neglect, and rejection were best protected from deleterious intergenerational effects of parenting behaviors on flourishing. Single-generation parenting (Generation 2 parenting directly associated with Generation 3 flourishing) demonstrated commonality. Parent warmth promoted, and parent hostility, neglect, and rejection impeded the development of child flourishing largely regardless of parenting norms.

In cultures worldwide, adaptive socioemotional development in childhood ensures optimal subsequent socioemotional competence, peer and family relationships, and physical and mental health (Raval & Walker, 2019). One domain of socioemotional development that demonstrates impressive effects across ontogeny is the development of flourishing (feeling good and functioning effectively; Kern, Benson, Steinberg, & Steinberg, 2016). Developmental scientists identify that, across cultural contexts, children's development of flourishing characteristics promotes well-being (Kern et al., 2016). Therefore, identifying parenting behaviors that promote the development of flourishing in different cultural contexts is critical to ensuring optimal development in children worldwide. Yet, existing studies investigating parenting's influence on flourishing are largely cross-sectional and based on samples from Western, industrialized countries (Raval & Walker, 2019). How parenting influences flourishing over ontogeny across cultures remains unknown.

Our study investigates these relations by examining the extent to which four parenting behaviors (warmth, hostility, neglect, and rejection)

prospectively predict five characteristics of child flourishing (including Engagement, Perseverance, Optimism, Connectedness, and Happiness; EPOCH) with commonality (i.e., universality) or specificity (i.e., differences in associations) across cultures. We investigate these associations in 1,338 children followed from ages 7–15 from 12 cultural groups.

#### *The Importance of Studying Adolescent Flourishing and Its Predictors*

Developmental scientists have increasingly recognized that the development of life satisfaction and well-being do not emerge solely from the absence of poor mental health, but also due to the presence and cultivation of personal strengths like EPOCH (Bowers et al., 2014; Kern et al., 2016). Consequently, over the past decade, developmental scientists have increasingly turned to investigate how these personal strengths, also known as "flourishing characteristics," emerge across development and are associated with well-being (Kern et al., 2016). Specifically, across multiple U.S. and Australian adolescent samples, higher scores on each EPOCH characteristic were associated with more adaptive physical health, academic performance, greater well-being, and more adaptive social relationships (Kern et al., 2016). These benefits last longitudinally, as higher EPOCH characteristics scores have been linked to greater adult life satisfaction, physical and mental health, and overall well-being (Kern et al., 2016). These findings offer several future directions that inform the contributions of this study.

First, this initial work indicates that EPOCH characteristics may fully emerge and begin to exert their adaptive effects in adolescence (Bowers et al., 2014; Kern et al., 2016). In adolescence, abilities to

---

The title for this Special Section is **Specificity and Commonality: Sociocultural Generalizability in Social-Emotional Development**, edited by Tina Malti and Charissa S. L. Cheah.

This research has been funded by the Eunice Kennedy Shriver National Institute of Child Health and Human Development grant RO1-HD054805 and Fogarty International Center grant RO3-TW008141. This research also was supported by the Intramural Research Program of the NIH/NICHHD, USA, and an International Research Fellowship in collaboration with the Centre for the Evaluation of Development Policies (EDePO) at the Institute for Fiscal Studies (IFS), London, UK, funded by the European Research Council (ERC) under the Horizon 2020 research and innovation program (grant agreement No 695300-HKADeC-ERC-2015-AdG). The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH or NICHHD.

Correspondence concerning this article should be addressed to W. Andrew Rothenberg, Research Scientist, Center for Child & Family Policy, Duke University, 302 Towerview Rd, Durham, NC 27708. Electronic mail may be sent to war15@duke.edu; rothenbergdrew@gmail.com.

perspective-take, make social comparisons, and set goals mature, and each of these developmental capacities is necessary to engage in activities and institutions, persevere to achieve goals, be optimistic about the future, and connect with others socially (i.e., EPOCH characteristics; Bowers et al., 2014). Adolescence is also the time in which individuals have the opportunity and autonomy to engage in the full range of developmental niches wherein EPOCH characteristics can be applied (i.e., peer groups, families, schools, out-of-school activities; Bowers et al., 2014). For these reasons, developmental scientists specifically design measures for, and emphasize the importance of, investigating EPOCH characteristics in adolescence (Bowers et al., 2014). We also do so in this study.

Second, and vitally, existing research investigating EPOCH characteristics has not yet studied predictors of such characteristics. It remains unknown what or who might best cultivate EPOCH characteristics over time. However, one possibility is prior parenting behaviors (Bowers et al., 2014). Indeed, in a related but separate literature examining positive youth development, parenting is the predictor that accounts for the most variance in outcomes (Bowers et al., 2014). Yet, the frequency with which parents enact parenting behaviors and have contact with their children begins to decrease during the onset of adolescence across a wide variety of cultures, as children are provided with greater autonomy and spend more time outside of the home (Lansford, Rothenberg, & Bornstein, 2021). Therefore, parenting in the preadolescent middle childhood period (e.g., from ages 7–12) might be most powerfully predictive of the emergence of adolescent EPOCH characteristics, because during this period parents are still the primary socioemotional socializing agents in their child's life. For example, existing evidence from the developmental psychopathology literature demonstrates that such preadolescent parenting has especially powerful effects on subsequent adolescent mental health across cultures (Rothenberg, Lansford, Al-Hassan, et al., 2020; Rothenberg, Lansford, Bacchini, et al., 2020). Therefore, our study is the first to identify how preadolescent (i.e., ages 7–12) parenting behavior predicts adolescent (i.e., age 15) EPOCH flourishing characteristics, even after controlling for prior (i.e., age 12) EPOCH characteristics.

Third, and finally, existing EPOCH research has been almost exclusively conducted in Western, industrialized countries. Consequently, it is not known how or whether certain parenting behaviors predict the emergence of child EPOCH flourishing characteristics worldwide, across cultural contexts.

We next turn to this question, and consider the parenting behaviors that may predict child flourishing worldwide.

### *Parenting Behaviors That May Predict Child Flourishing Worldwide*

The first step in identifying how parenting impacts child flourishing worldwide is to identify parenting behaviors that share similar meaning across cultures (i.e., demonstrate measurement invariance) and to recognize where effects of these parenting behaviors on socioemotional development have been studied across many different cultures. Interpersonal Acceptance-Rejection Theory (IPARTheory) does just that (Rohner & Lansford, 2017). IPARTheory posits that all human beings have an innate need to experience accepting, positive responses from their caregivers (Rohner & Lansford, 2017). IPARTheory has identified four parenting behaviors that promote or prevent children's ability to meet this need. They include: (a) warmth-affection (i.e., providing emotionally expressed affection), (b) hostility-aggression (i.e., expressing enmity, anger, or resentment), (c) indifference-neglect (i.e., a lack of concern for one's children's needs), and (d) undifferentiated rejection (i.e., children's beliefs that their parents do not really care for or love them; Rohner & Lansford, 2017).

IPARTheory-based meta-analyses of the effects of parent warmth, hostility, neglect, and undifferentiated rejection of over 16,000 children from 16 countries ( $M_{\text{age}} = 12\text{--}15$  years) revealed significant associations of these parenting behaviors with child flourishing (Khaleque & Ali, 2017). Specifically, warmth was associated with aspects of greater flourishing (e.g., greater self-esteem, sense of self-adequacy, positive worldview), whereas hostility, neglect, and rejection were associated with less flourishing (Khaleque & Ali, 2017). Although these meta-analyses present emergent evidence for the existence of parenting behaviors that exhibit common associations with child flourishing in cultures around the world, they are limited in two ways. First, these findings are cross-sectional, so it remains unclear whether parenting practices predict subsequent child flourishing over time and across cultural contexts (Khaleque & Ali, 2017). Therefore, we investigate such longitudinal effects. Second, the prior findings do not account for how these associations between parenting and child flourishing vary across cultures. For instance IPARTheory researchers have found that approximately 25% of the world's cultures tend to be mildly or severely rejecting (Rohner & Lansford, 2017). It remains unclear whether associations between parenting and child flourishing differ in such

cultures from those without high rejection, or what cultural mechanisms may facilitate such variation. Thus, we investigate a cultural mechanism that may drive these variations by invoking the specificity and commonality principles of cultural science (Bornstein, 2017).

#### *Specificity and Commonality in Parenting Across Cultures*

The specificity and commonality principles can be usefully applied to understand how prospective associations between parenting behaviors and child socioemotional development may vary across cultures (Bornstein, 2017). The commonality principle posits that certain characteristics shared by individuals or environments in many different cultures may lead to a similar development in children across time, context, or space. IPARTheory's supposition and accompanying evidence that the universal human need for acceptance leads to significant associations between parent warmth, hostility, neglect, rejection, and child flourishing regardless of culture invokes the commonality principle. The specificity principle posits that specific setting conditions affect certain domains of child development in specified ways in specific cultures (Bornstein, 2017). Presently, we investigate normativeness of parenting behavior as a cultural mechanism that could operate according to the specificity principle and therefore lead to differences in the effects of IPART parenting behaviors on child flourishing across cultures. We investigate two ways in which cultural normativeness of parenting behavior may serve as a moderator that leads to differing cross-cultural effects. First, we investigate how differences in cultural normativeness render it more or less likely that parenting behaviors are passed across generations in different cultures. Second, we investigate how differences in cultural normativeness affect the likelihood that parenting behaviors predict differences in child flourishing in different cultures (Figure S1).

#### *Specificity Due to Moderation of the Intergenerational Transmission of Parenting*

Core to the definition of culture is the transmission of shared beliefs and practices from one generation to the next (Bornstein, 2017). Aligning with this pattern, different cultures emphasize unique parenting behaviors that are passed down from one generation to the next. For instance, in our sample, cultural parenting characteristics such as *familismo* and *respeto*

(i.e., practices marked by high cohesion and warmth, but also deep respect for one's elders) in Latinx cultures around the world, parenting axioms such as "A tree is shaped while young, or when it is grown up it breaks" among the Luo in Kenya, and egalitarian parenting styles treating parents and children as equals in Sweden are each examples of culture-specific parenting that are more likely to be passed from one generation to the next in specific cultures, compared to others (Lansford et al., 2021). Similarly, the IPARTheory meta-analyses reveal that cultures vary in their levels of warmth, hostility, neglect, and rejection worldwide (Rohner & Lansford, 2017). Therefore, it may be that the extent to which an IPART parenting behavior is passed from one generation to the next in a culture depends on how normative that behavior is in a cultural context. Parenting behaviors that are more culturally normative when G2s become parents are more likely to be passed across generations. These more normative parenting behaviors may demonstrate stronger effects on child socioemotional development because they are more frequently discussed and socialized within the G2 family context (Rothenberg, 2019) and characterize the larger culture (Bornstein, 2017). Therefore, in this study, we examine the extent to which cultural normativeness of a parenting behavior moderates the intergenerational transmission of that behavior and its subsequent impact on child flourishing. We do so by examining whether higher levels of a Generation 1 (G1) parenting behavior retrospectively recalled by Generation 2 (G2) offspring are associated with higher levels of the same behavior in G2s when they parent, and whether G2 parenting predicts subsequent Generation 3 (G3) child flourishing. Then, we examine whether this entire developmental pathway differs depending on how normative that G2 parenting behavior is within a given culture (Figure S1).

#### *Specificity Due to Moderation of Parenting Effects on Child Flourishing*

In addition to the cultural normativeness in the intergenerational transmission of parenting behaviors, cultural normativeness of parenting behaviors may determine cultural specificity in the effects of parenting behaviors on child flourishing (Lansford et al., 2018). Specifically, we have found that the effects of positive parenting behaviors (such as warmth) on child socioemotional development can be enhanced in cultures where such behaviors are more normative (Lansford et al., 2018). In contrast, the effects of negative parenting behaviors that enact hostility, rejection, or neglect (e.g., corporal punishment)

on child outcomes (such as externalizing behavior) are attenuated (but still adverse) in cultures with higher normative levels of those behaviors (Lansford et al., 2005). Taken together, these findings suggest that parents' behaviors are generally linked to better (or less adverse) child outcomes when parents act in ways that are normative within their cultural context (Lansford et al., 2018).

### *The Current Study*

This study utilizes the commonality and specificity principles to investigate how four parenting behaviors prospectively predict five aspects of child flourishing. It invokes the commonality principle by identifying parenting warmth, hostility, neglect, and rejection identified by IPARTheory as likely to predict child flourishing across cultures. It invokes the specificity principle by predicting that the cultural normativeness of G2 parenting will moderate both the intergenerational transmission of parenting behaviors and the effects of such behaviors on child flourishing. Consequently, these moderating effects may account for why effects of IPARTheory parenting behaviors vary in magnitude across cultures. We predict that, in cultures where an IPARTheory parenting behavior is more normative, the intergenerational transmission of that parenting behavior will be stronger, the associations of positive parenting with subsequent child flourishing will be enhanced, and associations of negative parenting will be weakened. To investigate these mediating intergenerational pathways across cultures, we will examine the indirect mediating effects of G1 parenting on G3 child flourishing through G2 parenting. We investigate our hypotheses in mothers and fathers in a prospective, cross-cultural, and intergenerational model (Figure S1). This study has a combination of exploratory features and confirmatory features; it was not a pre-registered report with single directional hypotheses, but we are testing alternative hypotheses suggested by previous research.

## **Method**

### *Participants*

Participants included 1,338 children ( $M = 8.59$  years,  $SD = 0.68$ , range = 7–11 years; 50% girls), their mothers ( $N = 1,283$ ,  $M = 37.04$  years,  $SD = 6.51$ , range = 19–70 years), and their fathers ( $N = 1,170$ ,  $M = 40.19$  years,  $SD = 6.75$ , range = 22–76 years) at Wave 1 of 7 annual waves collected between 2008 and 2017 (Table S1). Families were

recruited from 12 ethnocultural groups in nine countries including: Shanghai, China ( $n = 123$ ); Medellín, Colombia ( $n = 108$ ); Naples ( $n = 102$ ) and Rome ( $n = 111$ ), Italy; Zarqa, Jordan ( $n = 114$ ); Kisumu, Kenya ( $n = 100$ ); Manila, Philippines ( $n = 120$ ); Trollhättan & Vänersborg, Sweden ( $n = 129$ ); Chiang Mai, Thailand ( $n = 120$ ); and Durham, NC, United States ( $n = 110$  White,  $n = 102$  Black,  $n = 99$  Latinx). These groups were selected because they vary across a number of important dimensions. For example, the countries rank 8th–147th out of 189 countries on the United Nations' Human Development Index, an indicator of a country's health and income status.

Participants were recruited through schools. Response rates varied from 24% to 100%, primarily because of differences in the schools' roles in recruiting (i.e., some schools took a more active role in recruiting than others). We are unable to estimate response rates for all sites. In some cases, there is no record of the number of students potentially invited to participate versus those who agreed to participate due to the differing ways in which schools informed parents about the study (e.g., letters, emails, or verbal announcements). Most parents lived together (82%), and were biological parents (97%); nonresidential and nonbiological parents also provided data. Sampling included families from each country's majority ethnic group, except in Kenya where we sampled Luo (13% of the population), and in the United States, where we sampled equal proportions of Black, Latinx, and White families. Socioeconomic status (SES) was sampled in proportions representative of each recruitment area. In the final year of data collection reported here, 74.6% of the original sample provided data. Participants who were missing dependent variable data experienced slightly lower levels of G2 father warmth ( $M_{\text{missing}} = 3.49$  vs.  $M_{\text{retained}} = 3.56$ ), but did not differ on any other study variables. Aligning with best practices, maximum likelihood estimation procedures were used to account for missing data (Kline, 2011).

### *Procedure*

Measures were administered in Chinese (China), Spanish (Colombia and the United States), Italian (Italy), Arabic (Jordan), Dholuo (Kenya), Filipino (the Philippines), Swedish (Sweden), Thai (Thailand), and English (the Philippines and the United States), following forward- and back-translation. Interviews lasted 2 hr and were conducted after parent consent and child assent were given in participant-chosen

locations. Participants were given the choice of completing the measures in writing or orally. Families were given modest monetary compensation for participating or compensated in other ways deemed appropriate by local IRBs.

### Measures

#### Demographics and SES

Child gender was included in analyses as a covariate. Additionally, two SES indicators were included in all analyses as covariates: parent education and family income. See the Supplemental Methods for further detail. Parent education was measured as the maximum number of years of education either parent completed at the beginning of the study. Family income was measured when adolescents were age 12 (i.e., at the same time that G1 and G2 mother and father parenting behaviors were assessed). Each cultural site was instructed to construct a 0–9 scale in their local currency that adequately captured the range of incomes seen in their culture. Then, each site asked parents to rate their income on this 0–9 scale. Given the variability in parent education and income (Table S1), this sample is socioeconomically diverse.

#### G1 and G2 Mother and Father Parenting Behaviors

G1 (Generation 1) refers to the parents' relationships with their own parents (the study child's grandparents); G2 (Generation 2) refers to the relationships between the parents and study child. Both G1 and G2 mother and father parenting behaviors were measured using the Parental Acceptance-Rejection Questionnaire (PARQ; Rohner, 2005, a highly reliable, valid, and factorially invariant cross-cultural measure, see Supplemental Methods). The PARQ is a 24 item scale on which participants report their perceived frequency of parenting behaviors on a 1 = *never or almost never* to 4 = *every day* scale. Eight items captured parental warmth (e.g., "I make my child feel wanted and needed"), six items captured hostility-aggression (e.g., "I go out of my way to hurt my child's feelings"), six items captured indifference-neglect (e.g., "I pay no attention to my child"), and four items captured undifferentiated rejection (e.g., "I do not really love my child"). In this study, G2 mothers and fathers used the PARQ to report retrospectively on their own (G1) parents' parenting behaviors when G2s were ages 7–12 and additionally used the PARQ to report annually on their own parenting behaviors when their children were ages 7–12.

For G1 and G2 parenting, items on each subscale were averaged, and all four parenting behaviors demonstrated high reliability for G1 mothers ( $\alpha = .83-.93$  across subscales), G1 fathers ( $\alpha = .79-.93$  across subscales), G2 mothers ( $\alpha = .77-.84$  across subscales), and G2 fathers ( $\alpha = .74-.84$  across subscales). Higher scores indicated more frequently reported occurrences of parenting behaviors.

#### Child Flourishing

Children self-reported on their flourishing at an average age of 15.60 ( $SD = 0.98$ ) using the EPOCH measure of adolescent well-being (Kern et al., 2016). Children also used this same measure to self-report on their flourishing earlier at age 12 (i.e., contemporaneously with G2 parenting reports). We included the age 12 measure in all analyses as a covariate, to ensure that the associations of parenting on age 15 flourishing persisted above and beyond associations with age 12 flourishing. The 20-item EPOCH measures five different positive youth characteristics that promote high levels of adolescent well-being and thriving (Kern et al., 2016). These five characteristics are Engagement (being absorbed and involved in an activity or the world itself), Perseverance (the tenacity to stick with things and pursue a goal despite challenges), Optimism (having a sense of hope and confidence about the future), Connectedness (feeling loved, supported, and valued by others), and Happiness (a general feeling of cheer and contentment with life). Each of the five characteristics is assessed using four items rated on a 1 = *not at all like me* to 5 = *very much like me* scale. The four items are averaged to generate a scale score for each of the five characteristics. Internal consistency for scales at age 12 ranged from  $\alpha = .66-.84$  and at age 15 ranged from  $\alpha = .65-.86$ , with only Engagement ( $\alpha_{age12} = .66$ ;  $\alpha_{age15} = .65$ ) below the .80 threshold. All five characteristics demonstrated measurement of invariance across cultures (see Supplemental Methods for further detail). Higher scores indicate higher levels of the five flourishing characteristics. Descriptive statistics for all cultures are found in Table S2.

#### Analysis Plan

Consistent with prior work (Rothenberg, Lansford, Al-Hassan, et al., 2020), we utilized a path analytic framework in *Mplus* Version 7 to evaluate hypotheses. Eight path models that tested associations between parenting behaviors and child flourishing were investigated. Of these eight, four models examined how intergenerational transmission of (a) mother warmth

(see Table S3 for Mplus syntax and contact the first author with other queries), (b) mother hostility (Table S4 for syntax), (c) mother neglect (Table S5), and (d) mother rejection (Table S6) from ages 7–12 predicted each of the five child flourishing characteristics at approximately age 15. Then, four models examined this same intergenerational process but with the four father parenting behaviors (see Tables S7–S10 for syntax). All models controlled for child gender, parent education, family income, and prior age 12 child flourishing characteristics when predicting age 15 child flourishing characteristics. Significant mediational pathways from G1 parenting to G2 parenting to child flourishing outcomes were investigated by measuring standardized indirect effects in *Mplus* via examining bias-corrected bootstrapped 95% confidence intervals generated by 5000 bootstrapping iterations in *Mplus* (following recommendations by Hayes, 2012; see Table 5).

Additionally, each model was run in a multiple group framework to examine the extent to which cultural normativeness of G2 parenting behaviors was related to the intergenerational transmission of parenting, and the association between G2 parenting and child outcomes. Specifically, for each G2 mother and father parenting behavior, three normativeness groups were formed across all cultures: a group of G2 participants from cultures that fell significantly below the grand mean on that G2 parenting behavior, G2 participants from cultures that did not significantly differ from the grand mean, and G2 participants from cultures that fell significantly above the grand mean on that G2 parenting behavior. Once path models were fit, multiple-group comparisons across each of the three G2 normativeness groups in each model were conducted to examine differences in cultural normativeness. All paths in each model were initially constrained to be equal across G2 normativeness groups. Then, paths were freed to vary across G2 normativeness groups if a chi-square difference test revealed that the model fit significantly better when a path was freed. This approach allowed for the identification of single- and intergenerational effects that varied based on G2 cultural normativeness. See Supplemental Analysis Plan for further justification for this approach.

## Results

The prose below summarizes the main findings associated with study hypotheses. Due to space constraints, associations with covariates are not reported in the text. Complete results are presented

in Tables 1–4. Correlations among variables in the whole sample can be found in Table S11. Evaluation of model fit was based on recommended fit index cut-off values that indicated acceptable model fit (comparative fit index [CFI]/Tucker–Lewis index [TLI]  $\geq .90$ , root mean square error of approximation [RMSEA]  $\leq .05$ , standardized root mean squared residual [SRMR]  $\leq .08$ ; Kline, 2011). All models controlled for child gender, parent education, family income, and prior age 12 child flourishing characteristics. Significant mediating effects are reported in Table 5.

### *Mother and Father Warmth*

Overall, the final mother ( $\chi^2(156) = 322.91, p < .01$ , CFI/TLI = .94/.92, RMSEA = .05, SRMR = .07) and father ( $\chi^2(152) = 324.51, p < .01$ , CFI/TLI = .94/.91, RMSEA = .05, SRMR = .07) models both acceptably fit the data (Table 1).

### *Intergenerational Transmission*

In mothers, higher G1 warmth predicted higher G2 parent warmth regardless of levels of G2 normative cultural warmth, whereas in fathers, higher G1 warmth predicted higher G2 warmth in cultures with average or above-average (but not below average) normative G2 warmth.

### *Parenting Effects on Child Flourishing*

Greater G1 mother warmth predicted greater age 15 child flourishing on three indicators (perseverance, optimism, and connectedness) regardless of G2 culturally normative warmth and greater happiness in cultures with above-average G2 warmth. Greater G2 mother warmth was not a predictor of any child flourishing characteristics. Greater G1 father warmth predicted greater child flourishing on three indicators (engagement, optimism, and happiness) in all normativeness groups and greater connectedness in cultures with below average or average G2 warmth. Greater G2 father warmth predicted greater child flourishing on two indicators (perseverance and connectedness) in all groups. No significant intergenerational mediational pathways emerged in the mother model. However, in the father model, two such significant pathways emerged wherein higher G1 warmth predicted higher G2 warmth, which subsequently predicted two indicators of greater child flourishing (perseverance and connectedness; Table 5). These significant mediating pathways emerged in societies with average or above-average (but not below-

Table 1  
 Mother and Father Warmth Predicting Child Flourishing

	Child flourishing <i>B</i> ( <i>SE</i> )				
	Engagement	Perseverance	Optimism	Connectedness	Happiness
<b>Mother warmth models</b>					
G1 MW → G2 MW	.05 (.01)*	.05 (.01)*	.05 (.01)*	.05 (.01)*	.05 (.01)*
G2 MW → DV	.14 (.08)	.00 (.09)	.04 (.08)	.12 (.08)	.11 (.09)
G1 MW → DV	BA: -.11 (.06) AV: .07 (.07) AA: .05 (.04)	.07 (.03)*	.17 (.03)*	.09 (.03)*	BA: -.03 (.05) AV: .13 (.08) AA: .15 (.04)*
Child gender	-.04 (.04)	.00 (.05)	BA: -.12 (.06) AV: .21 (.10)* AA: .13 (.06)*	-.07 (.04)	.03 (.05)
Parent education	.01 (.01)*	.01 (.01)	.00 (.01)	.01 (.01)*	.00 (.01)
Family income	-.02 (.01)*	-.01 (.01)	-.02 (.01)	.01 (.01)	BA: .03 (.01)* AV: -.01 (.03) AA: -.01 (.01)
Baseline DV → DV	.35 (.03)*	.42 (.03)*	.37 (.02)*	.37 (.03)*	.36 (.03)*
<b>Father warmth models</b>					
G1 FW → G2 FW	BA: .03 (.04) AV: .21 (.04)* AA: .14 (.02)*	BA: .03 (.04) AV: .21 (.04)* AA: .14 (.02)*	BA: .03 (.04) AV: .21 (.04)* AA: .14 (.02)*	BA: .03 (.04) AV: .21 (.04)* AA: .14 (.02)*	BA: .03 (.04) AV: .21 (.04)* AA: .14 (.02)*
G2 FW → DV	-.03 (.07)	.16 (.08)*	.10 (.07)	.24 (.07)*	.08 (.07)
G1 FW → DV	.08 (.04)*	.07 (.04)	.15 (.04)*	BA: .22 (.06)* AV: .18 (.06)* AA: -.01 (.04)	.09 (.04)*
Child gender	-.06 (.04)	.00 (.05)	.06 (.05)	-.09 (.04)*	.03 (.05)
Parent education	BA: .03 (.01)* AV: .01 (.01) AA: .03 (.01)*	.01 (.01)	.01 (.01)	.02 (.01)*	.00 (.01)
Family income	-.04 (.01)*	BA: -.06 (.02)* AV: -.02 (.02) AA: -.01 (.01)	-.04 (.01)*	.01 (.01)	BA: .01 (.01) AV: .03 (.02) AA: -.01 (.01)
Baseline DV → DV	BA: .31 (.05)* AV: .46 (.04)* AA: .31 (.04)*	.41 (.03)*	.37 (.02)*	.36 (.03)*	.36 (.03)*

Note. If only one estimate listed (i.e., No BA, AV, AA) then path did not significantly differ across cultures. MW = mother warmth; FW = father warmth; DV = dependent variable; BA = cultures below average in G2 warmth; AV = cultures average in G2 warmth; AA = cultures above average in G2 warmth.  
 \* $p \leq .05$ .

average) G2 normative warmth. Following Kenny's (2018) benchmarks for standardized indirect effect sizes (.01 = small, .09 = medium, .25 = large), these intergenerational mediating effects are between small and medium (Table 5).

*Mother and Father Hostility*

Overall, the final mother ( $\chi^2(160) = 302.26, p < .01$ , CFI/TLI = .94/.93, RMSEA = .05, SRMR = .08) and father ( $\chi^2(152) = 312.74, p < .01$ , CFI/TLI = .94/.92, RMSEA = .05, SRMR = .08) models both acceptably fit the data (Table 2).

*Intergenerational Transmission*

In both mothers and fathers, higher G1 hostility significantly predicted higher G2 hostility in all normativeness groups. However, for mothers, this intergenerational transmission process was stronger in cultures with average or above-average levels of G2 hostility.

*Parenting Effects on Child Flourishing*

In mothers, only G2 (not G1) parent hostility had direct effects on age 15 child flourishing. Greater



Table 2

*Mother and Father Hostility Predicting Child Flourishing*

	Child flourishing <i>B</i> ( <i>SE</i> )				
	Engagement	Perseverance	Optimism	Connectedness	Happiness
<b>Mother hostility models</b>					
G1 MH → G2 MH	BA: .07 (.02)* AV: .17 (.03)* AA: .14 (.05)*	BA: .07 (.02)* AV: .17 (.03)* AA: .14 (.05)*	BA: .07 (.02)* AV: .17 (.03)* AA: .14 (.05)*	BA: .07 (.02)* AV: .17 (.03)* AA: .14 (.05)*	BA: .07 (.02)* AV: .17 (.03)* AA: .14 (.05)*
G2 MH → DV	-.08 (.08)	-.11 (.09)	-.13 (.08)	-.20 (.08)*	-.15 (.08)
G1 MH → DV	.08 (.05)	.00 (.06)	.00 (.05)	.02 (.05)	-.07 (.06)
Child gender	-.04 (.04)	-.01 (.05)	BA: .15 (.06)* AV: .10 (.07) AA: -.10 (.07)	-.08 (.04)	.04 (.05)
Parent education	.01 (.01)	.01 (.01)	-.01 (.01)	.01 (.01)*	-.01 (.01)
Family income	-.01 (.01)	-.01 (.01)	-.02 (.01)	.01 (.01)	.00 (.01)
Baseline DV → DV	.34 (.03)*	.42 (.03)*	BA: .40 (.04)* AV: .43 (.04)* AA: .27 (.04)*	.35 (.03)*	.36 (.03)*
<b>Father hostility models</b>					
G1 FH → G2 FH	.12 (.02)*	.12 (.02)*	.12 (.02)*	.12 (.02)*	.12 (.02)*
G2 FH → DV	.03 (.09)	-.08 (.10)	-.09 (.10)	BA: .03 (.15) AV: -.43 (.15)* AA: -.06 (.13)	-.04 (.10)
G1 FH → DV	.07 (.07)	.11 (.07)	.11 (.07)	.05 (.06)	.16 (.07)*
Child gender	-.04 (.04)	.00 (.05)	BA: .14 (.06)* AV: .08 (.07) AA: -.16 (.07)*	-.07 (.04)	.03 (.05)
Parent education	.01 (.01)*	.01 (.01)	.00 (.01)	.02 (.01)*	.00 (.01)
Family income	-.02 (.01)	BA: .00 (.01) AV: .01 (.02) AA: -.04 (.02)*	-.01 (.01)	.02 (.01)	BA: .00 (.01) AV: -.02 (.01) AA: .36 (.03)*
Baseline DV → DV	BA: .33 (.04)* AV: .51 (.05)* AA: .29 (.05)*	.41 (.03)*	BA: .40 (.03)* AV: .47 (.04)* AA: .23 (.04)*	.35 (.03)*	.36 (.03)*

*Note.* If only one estimate listed (i.e., No BA, AV, AA) then path did not significantly differ across cultures. MH = mother hostility; FH = father hostility; DV = dependent variable; BA = cultures below average in G2 hostility; AV = cultures average in G2 hostility; AA = cultures above average in G2 hostility.

\* $p \leq .05$ .

G2 mother hostility predicted less child flourishing on 1 indicator (connectedness) in all normativeness groups. Greater G1 father hostility predicted greater child happiness in all normativeness groups. G2 father hostility predicted less child connectedness in cultures with average levels of hostility. In mothers, one intergenerational mediating pathway emerged. Higher G1 hostility predicted higher G2 hostility which predicted lower child connectedness in all cultures, though this mediating pathway was stronger in cultures with average or above-average levels of hostility, compared to cultures with below-average levels of hostility. Additionally, in fathers, one mediational pathway also emerged. Higher G1

hostility predicted higher G2 hostility which predicted lower connectedness in cultures with average normative hostility (Table 5). Following Kenny's (2018) benchmarks for standardized indirect effect sizes, these intergenerational mediating effects are between small and medium (Table 5).

#### *Mother and Father Neglect*

Overall, the final mother ( $\chi^2(162) = 334.22, p < .01$ , CFI/TLI = .94/.92, RMSEA = .05, SRMR = .07) and father ( $\chi^2(160) = 303.41, p < .01$ , CFI/TLI = .95/.93, RMSEA = .05, SRMR = .08) models both acceptably fit the data (Table 3).

*Intergenerational Transmission*

In both mothers and fathers, higher G1 neglect significantly predicted higher G2 neglect in all normativeness groups.

*Parenting Effects on Child Flourishing*

In mothers, higher G1 neglect predicted less age 15 child flourishing on two indicators (child optimism and happiness) in all groups. Higher G2 mother neglect predicted less child flourishing on three indicators (child perseverance, optimism, and connectedness) in all groups. In fathers, higher G1 neglect predicted lower child perseverance in cultures with above-average neglect. Higher G2 father neglect predicted lower perseverance in all

normativeness groups. In both mothers and fathers, greater G1 neglect predicted greater G2 neglect which predicted less child flourishing according to one indicator (perseverance). In mothers but not fathers, greater G1 neglect predicted greater G2 neglect, which predicted less child connectedness. All these mediating pathways emerged in all groups regardless of normative levels of parenting (Table 5). Following Kenny's (2018) benchmarks for standardized indirect effect sizes, these intergenerational mediating effects are between small and medium (Table 5).

*Mother and Father Rejection*

Overall, the final mother ( $\chi^2(156) = 328.17, p < .01, CFI/TLI = .94/.91, RMSEA = .05, SRMR = .08$ ) and

Table 3  
*Mother and Father Neglect Predicting Child Flourishing*

	Child flourishing <i>B</i> ( <i>SE</i> )				
	Engagement	Perseverance	Optimism	Connectedness	Happiness
<b>Mother neglect models</b>					
G1 MN → G2 MN	.11 (.01)*	.11 (.01)*	.11 (.01)*	.11 (.01)*	.11 (.01)*
G2 MN → DV	-.06 (.07)	-.18 (.07)*	-.14 (.07)*	-.23 (.07)*	-.09 (.07)
G1 MN → DV	-.05 (.04)	-.06 (.04)	-.15 (.04)*	-.08 (.04)*	-.14 (.04)*
Child gender	-.04 (.04)	-.01 (.05)	BA: .07 (.07) AV: .15 (.06)* AA: -.17 (.07)*	-.08 (.04)	.03 (.05)
Parent education	.02 (.01)*	.00 (.01)	-.01 (.01)	.01 (.01)	-.01 (.01)
Family income	-.03 (.01)*	BA: .00 (.02) AV: .00 (.01) AA: .41 (.03)*	-.02 (.01)*	.01 (.01)	.00 (.01)
Baseline DV → DV	.36 (.03)*	.41 (.03)*	BA: .44 (.04)* AV: .38 (.04)* AA: .23 (.04)*	.37 (.03)*	.36 (.03)*
<b>Father neglect models</b>					
G1 FN → G2 FN	.15 (.03)*	.15 (.03)*	.15 (.03)*	.15 (.03)*	.15 (.03)*
G2 FN → DV	-.06 (.07)	-.24 (.08)*	-.14 (.08)	-.14 (.07)	-.09 (.08)
G1 FN → DV	-.05 (.06)	BA: .01 (.15) AV: .03 (.06) AA: -.78 (.23)*	BA: -.17 (.13) AV: -.08 (.07) AA: .42 (.24)	-.03 (.05)	-.03 (.06)
Child gender	-.04 (.04)	-.02 (.01)*	.07 (.05)	-.07 (.04)	.04 (.05)
Parent education	.02 (.01)*	.01 (.01)	.00 (.01)	.02 (.01)*	.00 (.01)
Family income	-.03 (.01)*	-.03 (.01)*	BA: .00 (.02) AV: -.06 (.01)* AA: .01 (.03)	.00 (.01)	.00 (.01)
Baseline DV → DV	.38 (.03)*	.43 (.03)*	BA: .46 (.04)* AV: .37 (.03)* AA: .23 (.10)*	.38 (.03)*	.37 (.03)*

*Note.* If only one estimate listed (i.e., No BA, AV, AA) then path did not significantly differ across cultures. MN = mother neglect; FN = father neglect; DV = dependent variable; BA = cultures below average in G2 neglect; AV = cultures average in G2 neglect; AA = Cultures above average in G2 neglect.  
\* $p \leq .05$ .

father ( $\chi^2(160) = 338.47, p < .01, CFI/TLI = .93/.91, RMSEA = .05, SRMR = .08$ ) models both acceptably fit the data (Table 4).

*Intergenerational Transmission*

In mothers, higher G1 rejection predicted higher G2 parent rejection in all groups, whereas in fathers, higher G1 rejection predicted higher G2 rejection only in cultures with average or above-average normative G2 rejection.

*Parenting Effects on Child Flourishing*

Greater G1 mother rejection was not a significant predictor of age 15 child flourishing. Greater G2 mother and father rejection both predicted less child flourishing according to three indicators (perseverance, optimism, and connectedness) in all normativeness groups. Greater G2 mother rejection additionally predicted less child happiness in all normativeness groups.

Five significant intergenerational mediating pathways emerged in the mother model (Table 5). Higher

Table 4  
Mother and Father Rejection Predicting Child Flourishing

	Child flourishing <i>B</i> (SE)				
	Engagement	Perseverance	Optimism	Connectedness	Happiness
<b>Mother rejection models</b>					
G1 MR → G2 MR	.05 (.01)*	.05 (.01)*	.05 (.01)*	.05 (.01)*	.05 (.01)*
G2 MR → DV	BA: .01 (.20) AV: -.68 (.20)* AA: -.09 (.13)	-.31 (.11)*	-.44 (.10)*	-.28 (.10)*	-.27 (.11)*
G1 MR → DV	.05 (.05)	.01 (.05)	-.01 (.05)	.05 (.05)	-.02 (.05)
Child gender	-.05 (.04)	BA: -.07 (.06) AV: .20 (.09)* AA: -.03 (.08)	BA: .19 (.06)* AV: .07 (.08) AA: -.17 (.07)*	-.07 (.04)	.04 (.05)
Parent education	.01 (.01)	.00 (.01)	-.01 (.01)	BA: .01 (.01) AV: .00 (.01) AA: .03 (.01)*	.00 (.01)
Family income	-.02 (.01)	.00 (.01)	-.01 (.01)	.02 (.01)*	BA: .00 (.01) AV: -.01 (.02) AA: .05 (.02)*
Baseline DV → DV	BA: .41 (.04)* AV: .22 (.06)* AA: .36 (.05)*	.41 (.03)*	.35 (.02)*	.37 (.03)*	.36 (.03)*
<b>Father rejection models</b>					
G1 FR → G2 FR	BA: .04 (.03) AV: .36 (.05)* AA: .15 (.04)*	BA: .04 (.03) AV: .36 (.05)* AA: .15 (.04)*	BA: .04 (.03) AV: .36 (.05)* AA: .15 (.04)*	BA: .04 (.03) AV: .36 (.05)* AA: .15 (.04)*	BA: .04 (.03) AV: .36 (.05)* AA: .15 (.04)*
G2 FR → DV	-.16 (.10)	-.24 (.11)*	-.29 (.11)*	-.25 (.10)*	-.09 (.11)
G1 FR → DV	.08 (.07)	.13 (.07)	.11 (.07)	BA: -.09 (.09) AV: .25 (.12)* AA: .14 (.09)	.13 (.07)
Child gender	-.03 (.04)	.01 (.05)	BA: .21 (.06)* AV: -.03 (.09) AA: -.10 (.06)	-.06 (.04)	.04 (.05)
Parent education	.01 (.01)	.01 (.01)	-.01 (.01)	.01 (.01)*	.00 (.01)
Family income	-.02 (.01)	-.01 (.01)	-.01 (.01)	.01 (.01)	BA: -.01 (.01) AV: -.01 (.02) AA: .04 (.01)*
Baseline DV → DV	.36 (.03)*	.42 (.03)*	.35 (.02)*	.37 (.03)*	.36 (.03)*

Note. If only one estimate listed (i.e., No BA, AV, AA) then path did not significantly differ across cultures. MR = mother rejection; FN = father rejection; DV = dependent variable; BA = cultures below average in G2 rejection; AV = cultures average in G2 rejection; AA = cultures above average in G2 rejection.

\* $p \leq .05$ .

G1 rejection predicted higher G2 rejection which predicted lower scores on four indicators of child flourishing (child perseverance, optimism, connectedness, and happiness) in all normativeness groups, and lower engagement in cultures with average levels of normative maternal rejection. Three significant intergenerational mediating pathways emerged in the father model. Higher G1 rejection predicted higher G2 rejection which predicted less child flourishing on three indicators, including less child perseverance, optimism, and connectedness in cultures with average or above-average rates of rejection. Following Kenny's (2018) benchmarks, the intergenerational mediating effects of mother rejection were generally small, whereas those of father rejection were between small and medium (Table 5).

### Discussion

We investigated how four parenting behaviors prospectively predicted child flourishing across 12 cultural groups by utilizing the specificity and commonality principles.

### Support for the Commonality Principle

The commonality principle was supported by most significant single-generation, direct effects observed in this study. Specifically, 79.3% of the significant single-generation effects (i.e., effects wherein either a G1 or G2 parenting behavior directly predicted child flourishing characteristics) in this study were common across cultures and did not vary according to the cultural normativeness of parenting behaviors. In other words, generally, higher G1 or G2 warmth predicted greater child flourishing and higher hostility, neglect, and rejection predicted less child flourishing regardless of how normative the parenting behaviors were in a culture. These findings support IPARTheory, which posits that, due to humans' shared fundamental need for acceptance, parent warmth will have promotive effects on child flourishing and parent rejection will generally have deleterious effects on child flourishing across cultures (Rohner & Lansford, 2017). However, these findings also expand IPARTheory in two ways.

First, the findings replicate and expand existing cross-sectional IPARTheory meta-analyses longitudinally,

Table 5  
Significant Intergenerational Mediating Pathways

Mediating pathway	Cultural normativeness group		
	Below average β (95% CI)	Average β (95% CI)	Above average β (95% CI)
<b>Parent warmth mediating pathways</b>			
G1FW → G2FW → Per	.004 (−.006, .027)	<b>.030 (.003, .068)</b>	<b>.022 (.003, .048)</b>
G1FW → G2FW → Con	.007 (−.015, .035)	<b>.045 (.018, .086)</b>	<b>.037 (.017, .067)</b>
<b>Parent hostility mediating pathways</b>			
G1MH → G2MH → Con	<b>−.008 (−.023, −.001)</b>	<b>−.025 (−.056, −.005)</b>	<b>−.016 (−.036, −.004)</b>
G1FH → G2FH → Con	<b>−.002 (−.023, .025)</b>	<b>−.025 (−.051, −.012)</b>	<b>−.004 (−.029, .016)</b>
<b>Parent neglect mediating pathways</b>			
G1MN → G2MN → Per	<b>−.014 (−.029, −.003)</b>	<b>−.016 (−.032, −.003)</b>	<b>−.012 (−.024, −.002)</b>
G1MN → G2MN → Con	<b>−.018 (−.035, −.007)</b>	<b>−.022 (−.042, −.008)</b>	<b>−.017 (−.032, −.006)</b>
G1FN → G2FN → Per	<b>−.016 (−.032, −.005)</b>	<b>−.023 (−.045, −.008)</b>	<b>−.015 (−.030, −.004)</b>
<b>Parent rejection mediating pathways</b>			
G1MR → G2MR → Eng	.000 (−.014, .014)	<b>−.017 (−.038, −.006)</b>	<b>−.002 (−.013, .003)</b>
G1MR → G2MR → Per	<b>−.010 (−.025, −.003)</b>	<b>−.007 (−.017, −.002)</b>	<b>−.008 (−.020, −.002)</b>
G1MR → G2MR → Opt	<b>−.014 (−.030, −.005)</b>	<b>−.011 (−.024, −.004)</b>	<b>−.012 (−.026, −.004)</b>
G1MR → G2MR → Con	<b>−.010 (−.025, −.002)</b>	<b>−.007 (−.019, −.002)</b>	<b>−.007 (−.019, −.002)</b>
G1MR → G2MR → Hap	<b>−.009 (−.023, −.002)</b>	<b>−.006 (−.017, −.002)</b>	<b>−.007 (−.019, −.002)</b>
G1FR → G2FR → Per	<b>−.005 (−.016, .000)</b>	<b>−.046 (−.112, −.006)</b>	<b>−.019 (−.064, −.001)</b>
G1FR → G2FR → Opt	<b>−.005 (−.017, .001)</b>	<b>−.060 (−.124, −.016)</b>	<b>−.025 (−.070, −.003)</b>
G1FR → G2FR → Con	<b>−.005 (−.020, .000)</b>	<b>−.056 (−.140, −.006)</b>	<b>−.022 (−.065, −.002)</b>

Note. Bolded estimates are significant at  $p \leq .05$ . If a 95% CI includes the value of 0, it is nonsignificant. G1 = Generation 1; G2 = Generation 2; M = mother; F = father; W = warmth; H = hostility; N = neglect; R = rejection; Eng = child engagement; Per = child perseverance; Opt = child optimism; Con = child connectedness; Hap = child happiness.

as called for by IPARTheorists (Khaleque & Ali, 2017). Second, they expand these findings intergenerationally, especially with regard to associations between parent warmth and child flourishing. Specifically, even after controlling for G2 parenting, G2 remembrances of higher G1 warmth predicted many characteristics of G3 flourishing regardless of normative cultural levels of warmth. This finding held true with both greater G1 mother warmth (which predicted G3 perseverance, optimism, and connectedness) and G1 father warmth (which predicted greater engagement, optimism, and happiness). These findings suggest that humans' need for warmth posited by IPARTheory may be so powerful that effects of warmth directly impact child flourishing across multiple generations. Investing in intervention programs that promote parent warmth, such as evidence-based behavioral parent training programs, might lead to cascading multigenerational positive effects across cultures (Rothenberg, 2019).

#### *Support for the Specificity Principle*

We also hypothesized that cultural normativeness in parenting behavior is one mechanism by which the specificity principle might operate in the present samples. Specifically, we hypothesized that parent normativeness might affect both (a) the intergenerational transmission of parenting behavior and its subsequent impact on child flourishing and (b) associations between parenting behaviors and child outcomes. We found greater evidence for the specificity principle when examining the former, intergenerational transmission pathway. As discussed earlier, the normativeness of parenting behavior in a particular culture did not seem to systematically enhance or mitigate the effects of single-generation parenting on child flourishing. However, the opposite story emerged when considering the effects of the intergenerational transmission of parenting behaviors. Specifically, 46.66% of significant intergenerational mediating pathways (i.e., pathways wherein G1 parenting predicted G2 parenting which then predicted G3 child flourishing) varied across cultures based on how normative the intergenerational parenting behavior was. Moreover, of these intergenerational mediating pathways that varied across cultures, 100% varied in the hypothesized manner (i.e., intergenerational pathways from parenting to child flourishing were stronger in cultures where the parenting behavior was more normative). Most of these intergenerational mediating effects were somewhere between small (benchmark  $\beta = .01$ ) and medium (benchmark  $\beta = .09$ ) in size, even after controlling for prior levels of child

flourishing, parent education, family income, and child gender. Therefore, though these intergenerational mediating effects were certainly only one small set of a vast array of predictors of child flourishing, they were not trivial either.

These contrasting patterns of findings (commonality in the effects of parenting within a single generation of the family and greater specificity in the effects of parenting across multiple generations) lead to an intriguing hypothesis. Perhaps, within any single-family generation, cultural specificity in the effects of parenting behaviors is harder to identify, as universal human needs for warm and adaptive parenting prevail (Rohner & Lansford, 2017). However, across multiple generations, cultural specificity in parenting effects emerges more strongly because multiple generations of parenting modeling and socialization practices establish cultural norms around parenting. The transmission of shared beliefs and practices might not only be core to the definition of culture (Bornstein, 2017); it might also represent the mechanism by which cultural values work through parents to shape child flourishing across generations.

This conclusion does, however, still beg the question: what might account for such high cultural commonality in single-generation (especially G2) parenting effects? One answer we tentatively propose is that the world is more interconnected than ever before, and therefore the pace of globalization and the consequent trend toward relative homogeneity in parenting and its effects on child flourishing might be accelerating. Evidence for this effect in our sample comes from separate investigations, wherein native investigators noted that in China, Colombia, Italy, Jordan, and Kenya traditionally more controlling, interdependent, "strict" parenting practiced predominantly by mothers had given way in the past generation to more autonomy-granting, verbally warm parenting practiced in a more egalitarian manner by mothers and fathers (Lansford et al., 2021). Authors reported that they believed parenting practices had shifted in this way to ensure children could flourish and succeed in societies that increasingly resembled Western, industrialized nations in their emphasis on individuality and personal success (Lansford et al., 2021). Therefore, associations of G2 parenting practices with child flourishing behaviors might show such strong commonality across cultures in our sample because the same parenting behaviors may facilitate or inhibit child flourishing characteristics that set children up for success in societies that look increasingly similar to one another over the past generation. The flip side of this conclusion is that cultural

differences in parenting may be more apparent when examining such practices in less globalized, more heterogeneous societies of early generations. Consequently, culture-specific effects may be much more likely to emerge when intergenerational transmission frameworks are examined.

Additionally, our results suggest that cultures with average or above-average normative warmth, and below-average normative hostility and rejection, are more likely to experience the positive effects, and to avoid the negative effects, of the intergenerational transmission of parenting on child flourishing. Culture-specific public health messaging campaigns and legislative procedures (e.g., banning corporal punishment; Lansford & Rothenberg, 2021) that promote positive parenting norms may be especially beneficial in breaking intergenerational cycles of deleterious parenting.

#### *Specificity and Commonality Working in Concert*

Specificity and commonality work in concert with regard to two other characteristics that differentiate the current intergenerational results: parenting behavior type, parent gender, and flourishing characteristics. The effects of parent neglect appear common at both the single and intergenerational levels, regardless of the normativeness of neglect in a specific culture. Specifically, 85.7% (6/7) of the significant single-generation direct effects, and 100% of the significant intergenerational mediating effects, of parent neglect on child flourishing were common across cultures regardless of levels of normativeness of neglect. These results indicate that cultural norms surrounding neglect have no impact on its deleterious effects on child flourishing, and align with extant cross-sectional meta-analyses (Khaleque & Ali, 2017).

The specificity principle appeared to be at work with regard to differences in effects in fathers versus mothers. For fathers, 85.71% of significant intergenerational mediating pathways varied based on cultural normativeness of father behaviors. All of these mediating effects followed the hypothesized pattern: Intergenerational continuity in a father's parenting behavior had greater effects on child flourishing in cultures where the father's use of that parenting behavior was normative. In contrast, these mediating intergenerational pathways varied significantly less across cultures in mothers (only 25% of significant intergenerational pathways varied based on normativeness). This difference may emerge because women across a wide array of cultures are still socialized into similar roles as the

primary caregiver, whereas a father's parenting role is more variable and less universally socialized across cultures (Rothenberg, 2019). Thus, the extent to which intergenerational continuity in father parenting impacts child flourishing may vary considerably based on local fathering norms and expectations. Finally, refer to the Supplemental Discussion for one more example of specificity and commonality working in concert that was not included here due to space limitations.

#### *Limitations and Future Directions*

This study has several limitations. First, the same reporters (G2 parents) reported on both G1 and G2 parenting. Future studies could examine G1 parenting prospectively. Second, this study samples are not representative of the nations within which they reside. Future investigations of nationally representative samples would make results more generalizable. Third, though longitudinal, the current design is correlational and therefore cannot infer causality. Fourth, this study did not investigate other parenting behaviors that show significant cross-cultural variability (e.g., autonomy-support or control; Lansford et al., 2021) and future flourishing work should consider these behaviors. Fifth, parent-child interactions are bidirectional and such bidirectionality could play a role in the intergenerational transmission of parenting behaviors (Rothenberg, 2019). In this study, we could not examine bidirectionality but future investigations should do so. Sixth, though all five flourishing characteristics were generally invariant across cultures (see Supplemental Methods for further detail), some instances of non-invariance did arise. Therefore, the meaning and metric of flourishing characteristics in this study still differs to a small extent across cultures. Future studies are needed to investigate how emic cultural definitions of flourishing may impact specificity and commonality in the effects of parenting behaviors on child flourishing. Finally, we measured parent self-reported parenting, which could be subject to reporter bias. Future studies could utilize observational parenting measures.

#### *Conclusion*

Despite its limitations, this study has several strengths that advance existing literature. The study offers several methodological innovations that assist in elucidating specificity and commonality. Our use of the multiple group structural equation modeling framework to free and constrain paths across

cultural normativeness groups allows for explicit empirical testing of whether developmental paths demonstrate specificity or commonality across cultures. The use of this framework allows for ready alignment between theory and analytic method, and precise identification of specificity. Additionally, we utilized different reporters of independent variables (i.e., parent-reported parenting behaviors) and dependent variables (i.e., child-reported flourishing). This multi-reporter multimeasure approach ensures the study results are more robust and readily generalizable across cultural contexts and parent and child behaviors.

Taken together, our results suggest that single-generation effects of parenting behaviors on child flourishing may demonstrate commonality across cultural contexts, regardless of cultural normativeness of parenting behaviors. Within a single family generation, warmth promotes, and hostility, neglect, and rejection impede, the subsequent development of child flourishing. Yet, results also reveal that the intergenerational parenting effects often depend on cultural normativeness, and therefore may demonstrate specificity. Children from cultures with above-average parent warmth experienced the most benefit from the intergenerational transmission of warmth on child flourishing. Similarly, children from cultures with below-average hostility, neglect, and rejection were best protected from the deleterious effects of intergenerational transmission of these behaviors.

## References

- Bornstein, M. H. (2017). The specificity principle in acculturation science. *Perspectives on Psychological Science, 12*, 3–45. <https://doi.org/10.1177/1745691616655997>
- Bowers, E. P., Johnson, S. K., Buckingham, M. H., Gasca, S., Warren, D. J. A., Lerner, J. V., & Lerner, R. M. (2014). Important non-parental adults and positive youth development across mid- to late-adolescence: The moderating effect of parenting profiles. *Journal of Youth and Adolescence, 43*, 897–918. <https://doi.org/10.1007/s10964-014-0095-x>
- Hayes, A. F. (2012). *PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling* [White paper]. Retrieved from <http://www.afhayes.com/public/process2012.pdf>
- Kenny, D. A. (2018, September). *Mediation*. David A. Kenny's homepage. Retrieved from <http://davidakenny.net/cm/mediate.htm>
- Kern, M. L., Benson, L., Steinberg, E. A., & Steinberg, L. (2016). The EPOCH measure of adolescent well-being. *Psychological Assessment, 28*, 586–597. <https://doi.org/10.1037/pas0000201>
- Khaleque, A., & Ali, S. (2017). A systematic review of meta-analyses of research on interpersonal acceptance–rejection theory: Constructs and measures. *Journal of Family Theory & Review, 9*, 441–458. <https://doi.org/10.1111/jftr.12228>
- Kline, R. B. (2011). *Principles and practices of structural equation modelling* (3rd ed.). New York, NY: Guilford.
- Lansford, J. E., Chang, L., Dodge, K. A., Malone, P. S., Oburu, P., Palmérus, K., . . . Quinn, N. (2005). Physical discipline and children's adjustment: Cultural normativeness as a moderator. *Child Development, 76*, 1234–1246. <https://doi.org/10.1111/j.1467-8624.2005.00847.x>
- Lansford, J. E., Godwin, J., Al-Hassan, S. M., Bacchini, D., Bornstein, M. H., Chang, L., . . . Zelli, A. (2018). Longitudinal associations between parenting and youth adjustment in twelve cultural groups: Cultural normativeness of parenting as a moderator. *Developmental Psychology, 54*, 362–377. <https://doi.org/10.1037/dev0000416>
- Lansford, J. E., & Rothenberg, W. A. (2021). Commentary: Spanking and externalizing problems: Examining within-subject associations. *Child Development*. <https://doi.org/10.1111/cdev.13577>
- Lansford, J. E., Rothenberg, W. A., & Bornstein, M. H. (Eds.). (2021). *Parenting across cultures across development: Parenting from childhood to adolescence in nine countries*. New York, NY: Routledge.
- Raval, V. V., & Walker, B. L. (2019). Unpacking 'culture': Caregiver socialization of emotion and child functioning in diverse families. *Developmental Review, 51*, 146–174. <https://doi.org/10.1016/j.dr.2018.11.001>
- Rohner, R. P. (2005). Parental Acceptance-Rejection Questionnaire (PARQ): Test manual. In R. P. Rohner & A. Khaleque (Eds.), *Handbook for the study of parental acceptance and rejection* (4th ed., pp. 43–106). Storrs, CT: Center for the Study of Parental Acceptance and Rejection, University of Connecticut.
- Rohner, R. P., & Lansford, J. E. (2017). Deep structure of the human affectional system: Introduction to interpersonal acceptance–rejection theory. *Journal of Family Theory & Review, 9*, 426–440. <https://doi.org/10.1111/jftr.12219>
- Rothenberg, W. A. (2019). A review of intergenerational continuity in parenting: Identifying developmental pathways and moderating factors. *Marriage & Family Review, 55*, 701–736. <https://doi.org/10.1080/01494929.2019.1589618>
- Rothenberg, W. A., Lansford, J. E., Al-Hassan, S. M., Bacchini, D., Bornstein, M. H., Chang, L., . . . Peña Alampay, L. (2020). Examining effects of parent warmth and control on internalizing behavior clusters from age 8 to 12 in 12 cultural groups in nine countries. *Journal of Child Psychology and Psychiatry, 61*, 436–446. <https://doi.org/10.1111/jcpp.13138>
- Rothenberg, W. A., Lansford, J. E., Bacchini, D., Bornstein, M. H., Chang, L., Deater-Deckard, K., . . . Al-Hassan, S. M. (2020). Cross-cultural effects of parent warmth and control on aggression and rule-breaking from ages 8 to 13. *Aggressive Behavior, 46*, 327–340. <https://doi.org/10.1002/ab.21892>

**Supporting Information**

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

**Figure S1.** Conceptual Model of Study  
**Appendix S1.** Supplemental Methods, Results, Discussion, Tables, and Code