Child Development, xxxx 2021, Volume 00, Number 0, Pages 1–17

Distinct Profiles of Relationships With Mothers, Fathers, and Best Friends and Social-Behavioral Functioning in Early Adolescence: A Cross-Cultural Study

Wonjung Oh
Texas Tech University, USA

Julie C. Bowker
University at Buffalo, The State University of New York, USA

António J. Santos, Olívia Ribeiro, Maryse Guedes, and Miguel Freitas
William James Center for Research ISPA-Instituto Universitário, Portugal

Hyoun K. Kim
Yonsei University, South Korea

Seowon Song
Texas Tech University, USA

Kenneth H. Rubin
University of Maryland, College Park, USA

Adolescents' dyadic relationships are likely influenced by the cultural context within which they exist. This study applied a person-oriented approach to examine how perceived support and negativity were manifested across youths' relationships with mothers, fathers, and best friends, *simultaneously*, and how distinct relationship profiles were linked to adaptive and maladaptive functioning (aggression, anxious-withdrawal, prosociality) within and across cultures. Participants resided in metropolitan areas of South Korea, the United States, and Portugal (10–14 years; N = 1,233). Latent profile analyses identified relationship profiles that were culturally common or specific. Additional findings highlighted commonality in the relations between a high-quality relationship profile and adaptive functioning, as well as cultural specificity in the buffering and differential effects of distinct relationship profiles on social-behavioral outcomes.

Close interpersonal relationships have long been recognized as significant developmental contexts for youth. For example, parent–child relationships are presumed to be the primary sources of social support throughout childhood and during the transition to early adolescence (10–14 years; Collins & Laursen, 2013). However, friendships become increasingly salient and influential as the amount of time spent with friends grows and as friendships become more intimate (Rubin, Bukowski, & Bowker, 2015). Despite the well-documented contributions of parents and friends to a wide range of youths' social-behavioral outcomes (e.g., prosociality and aggression), defining the nature and structure of these relationships and their unique functions during early adolescence has been challenging. This is, in part, because specifically identified close relationships can have an impact on developmental outcomes, while at the same time,

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

Kenneth H. Rubin received support for the preparation of this manuscript from the US National Institute of Mental Health (MH58116).

António J. Santos received support for the preparation of this manuscript from the FCT-Fundação para a Ciência e Tecnologia, Portugal (PTDC/PSI-PDE/098257/2008, UIDB/04810/2020).

We extend appreciation and recognition to Dr. Unhai Rhee, Professor Emeritus, Yonsei University, for support for the collection of the Korean data.

Correspondence concerning this article should be addressed to Wonjung Oh, Department of Human Development and Family Sciences, Texas Tech University, 1301 Akron Ave. Box 41230, Lubbock, TX 79409-1230. Electronic mail may be sent to Wonjung.oh@ttu.edu.

0009-3920/2021/xxxx-xxxx
DOI: 10.1111/cdev.13610

can be influenced by other significant relationships to predict various outcomes. Thus, any given relationship must be understood as it is associated with other meaningful relationships, and perhaps also as it is embedded within a larger network of interpersonal relationship networks (e.g., Hinde, 1997).

Despite acknowledging the significance of the relations between relationship systems, few researchers have considered the quality of young adolescents' relationships with mothers, fathers, and friends *simultaneously* (e.g., Laursen, Furman, & Mooney, 2006; Laursen & Mooney, 2008), and when they have, they have often failed to recognize the larger *cultural* context within which interpersonal relationships exist. Although establishing autonomy from, while maintaining connectedness to parents is a universal developmental task for adolescents in all cultures (Raeff, 2006), this task is heavily influenced by cultural socialization practices. For example, there are differences in the extent to which cultural values emphasize and allow for time spent in familial versus extrafamilial relationships (French, Rianasari, Pidada, Nelwan, & Buhrmester, 2001), which in turn, can affect adaptive and maladaptive development throughout the adolescent years. Thus, in order to fully understand the significance of relationships in the lives of adolescents, internationally, it is important to understand both universal and culture-specific relationship norms as well as the extent to which relationship constellations are considered to be more or less adaptive in different cultures. A better understanding of qualitatively different relationship profiles across family and peer relationships may help identify culture-specific subgroups of youth with optimal or dysfunctional outcomes.

Building upon the literature on dyadic relationships within and across cultural contexts (e.g., French, Bae, Pidada, & Lee, 2006; Rubin, Oh, Menzer, & Ellison, 2011), in this study we sought to characterize relationship systems with mothers, fathers, and best friends during early adolescence. We did so in three countries that may differ in their relationship provision norms (the United States, Portugal, and South Korea). This effort allowed us to delineate both universal and culture-specific relationship profiles that may help explain, concurrently and prospectively, variability in adolescents' social-behavioral functioning.

Conceptualizing Culture

Culture can be conceptualized in numerous ways. Our perspective is informed by Hinde (1987) who posited that specific dyadic relationships are nested within mutually influential networks of other dyadic and group relationships that are further influenced by the larger cultural context which helps to determine the "meaning" and influence of such relationships. Thus, according to Hinde, patterns of close dyadic relationships, such as those with parents and friends, and their impact on youth functioning, may vary at the cultural level.

Our views pertaining to the relations between culture and close relationships are further informed by several perspectives. Traditionally, variability across cultures has been linked to the individualism-collectivism continuum, with suggestions that individualistic-leaning Western countries, such as the United States, emphasize independence and autonomy, whereas collectivistic-leaning non-Western countries, such as China and South Korea, value interdependence and harmony in relationships (Hofstede, 2010). In accord with the Inglehart and Welzel (2005) *World Values Survey*, countries can be further distinguished insofar as the acceptance of *traditional values* versus *secular-rational* values is concerned. Countries that emphasize traditional values include those that emphasize parent–child relationships, deference to authority (power distance; filial piety), and adherence to well-established and -recognized cultural norms. Alternatively, countries that emphasize secular-rational values place less emphasis on authority, the primacy of parent–child relationships, and more tolerance of cultural diversity. In these regards, the Inglehart and Welzel dimensions appear to be associated, conceptually, with Hofstede's distinction between *collectivistic*-leaning cultures that emphasize interdependence and harmony in relationships versus *individualistic*-leaning cultures that emphasize independence and autonomy.

More recently, Gelfand et al. (2011, 2021) have conceptualized cultures along a continuum of *tightness* and *looseness*. Drawing from the writings of Triandis (1989), Gelfand, Nishii, and Raver (2006) proposed that there exists a mutually reinforcing relation between cultural homogeneity and "tightness." Cultures characterized as "tight" encourage strict adherence to social norms with respect to social behavior and relationships, whereas "loose" cultures tolerate broad socialization practices allowing a wide range of behavior and relationships to be acceptable. In some regards, tightness is associated with maintenance of order; loose countries are more open (Gelfand et al., 2006). Recent assessments of the tightness-looseness continuum (Gelfand et al., 2011) have revealed that countries that cluster in the Confucian-Asian grouping on the World Values

Survey (e.g., South Korea, Taiwan, Hong Kong, China; Inglehart & Welzel, 2005) have high *tightness* scores (e.g., South Korea: $M_{\text{tightness}} = 10.0$); countries that cluster in the Catholic Europe grouping (e.g., Portugal, Italy, Spain, France) fall somewhere in the middle range (e.g., Portugal: $M_{\text{tightness}} = 7.8$); and those that fall in the English Speaking cluster (e.g., United States, United Kingdom, Australia, New Zealand) have relatively low tightness scores (e.g., United States: $M_{\text{tightness}} = 5.1$). Thus, the tightness-looseness continuum helps to distinguish among countries that may have been traditionally grouped together, such as Confucian-Asian and Catholic European countries, as a function of similarities pertaining to the extent to which social norms are emphasized and the extent to which adherence to these norms is of significance.

Informed by these different but complementary notions pertaining to culture and close relationships, of interest in this study were the parent–child relationships and friendships of young adolescents in three countries—South Korea (a Confucian-Asian country), Portugal (a Catholic European country), and the United States (an English Speaking country).

Cultural Commonality and Specificity in Relationships Systems and Functioning

Researchers have suggested that (a) perceived support from parents, and (b) positive relationship provisions (support and intimacy) experienced with friends promote positive self-worth and social competence among youth (e.g., Bagwell & Bukowski, 2018; Booth-LaForce et al., 2006). Most of this research has focused on youth in English Speaking countries and Western European countries. However, despite the well-documented link between relationships with parents and friends and subsequent youth outcomes, there are several reasons why more refined, culture-specific examinations are needed. First, young adolescents in many Western countries (English Speaking; Catholic European; and Protestant European countries, Inglehart & Welzel, 2005) appear to desire more autonomy and more rigorously attempt to renegotiate their relationships with mothers and fathers relative to youth in non-Western, Confucian-Asian countries (Rubin et al., 2011). These early adolescent goals for independence may be viewed, by both parents and children, as a natural process that evolves, and is allowed and accepted as societally normal as children move into the period of early adolescence. However, some parents may find it difficult to accept changes in the relative significance of adult relationships versus friendships during this period of maturity; consequently, parent–adolescent conflict is an especially salient issue in many Western societies (Branje, 2018). In contrast, many Confucian-Asian societies and cultures that tend to endorse elements of hierarchy, harmony, and interdependence in family relationships are less likely to view conflict and differences in opinion in parent–child relationships as acceptable and normative (e.g., Trommsdorff, 2006).

It is also the case that although all adolescents desire increased connectedness with peers, there is considerable cultural variability in the extent to which nonfamilial friendships are valued and in which adolescents can choose their own friends. In many countries that strongly adhere to traditional cultural norms and values, parents exert considerable control over their adolescents' choice of friendships, and family relationships are emphasized over friendships (e.g., Krappmann, 1996). In this regard, friendship conflict and the lack of friend support may not be problematic in some societies. To our knowledge, this possibility has yet to be empirically evaluated. Taken together, variability in societal norms pertaining to relationships has the potential to provide new knowledge about culturally universal and specific relationship profiles and whether such profiles are culturally adaptive or maladaptive.

Relationship Congruence

In addition to the cultural perspectives described earlier, several developmental theories and associated research explain why different relationship constellations may emerge and subsequently impact adolescent functioning. Attachment theorists, for example, believe that the associations between relationship systems ought to be *congruent* (Bowlby, 1973). Through early caregiving experiences with primary caregivers, children develop internal working models (IWMs) that their caregiver will provide (or fail to provide) them with a secure base and safe haven in times of need, and that they are deserving (or not) of care. Importantly, these IWMs are purported to generalize to later interpersonal relationships, including those with friends. Consistent with the IWM framework, it has been suggested that representations of relationship support are relatively stable over time and consistent across contexts with peers and romantic partners (e.g., Laursen et al. 2006). In support of this notion, Furman (2001) showed that adolescents' secure IWMs

were associated with perceived social support from close friends.

A longitudinal study by Laursen et al. (2006) indicated that perceived social support was similar across relationships with mothers, close friends, and romantic partners. In addition, adolescents reporting high levels of perceived social support in all three relationships had higher perceptions of self-worth and interpersonal competence than those reporting low support in relationships with mothers and friends. Similarly, Laursen and Mooney (2008) found that adolescents with congruently high-quality relationships (high positivity and low negativity) with their mothers, fathers, and best friends had fewer adjustment problems than those who had similarly poor quality (low positivity and high negativity) across the three relationships. In yet another study, adolescents who experienced high conflict in relationships with parents and friends were rated by peers as more delinquent and less prosocial (Ehrlich, Dykas, & Cassidy, 2012). Thus, profiles of *relationship congruence* might be expected across cultures (e.g., one profile in which youth report high positivity and low negativity across all three relationships and another where they report high negativity and low positivity across all relationships), with the most positive outcomes associated concurrently and predictively when all three relationships are characterized by high levels of positivity. It should be emphasized, however, that much of the extant research on relationship congruence derives from studies of North American/English speaking samples.

Relationship Incongruence

As youth renegotiate their family and peer relationships during the transition to adolescence, it remains unknown whether some youth with highly supportive and conflict-free relationships with their parents can find themselves involved in dysfunctional friendships that bring about intra- and interpersonal difficulties; it also remains relatively unknown whether some youth with unsupportive mother– and father–child relationships can develop supportive friendships and experience a reprieve from adjustment problems. Such examples highlight *incongruent* relationship patterns. Of interest herein is whether incongruent parent–adolescent and friendship relationship patterns would emerge similarly, and be related similarly to adjustment outcomes, in an English Speaking, a Catholic European, and a Confucian-Asian country despite different cultural relationship norms and values. Although incongruent relationship patterns and their influences on adjustment are rarely considered in developmental research (Rubin et al., 2015), one exception is a study by Laursen and Mooney (2008) who found evidence that not all the U.S. adolescents report similarly (high or low) quality relationships with their mothers, fathers, and friends. These researchers failed to find significant differences in the outcomes associated with congruent and incongruent relationship profiles, but their findings require replication, especially given numerous theories and models suggesting that one high-quality relationship should be able to function protectively for adolescents.

For example, the *compensation* model postulates that youth who perceive little support in their parent–child relationships may turn to their friends for support. Similarly, *context-choice theory* (Kerr, Stattin, Biesecker, & Ferrer-Wreder, 2003) underscores that as youth gain more control over their social environments during adolescence, those with poor parent–child relationships may choose to spend more time in peer-oriented, unstructured contexts that allow for positive relationships with peers. Few studies have directly evaluated relationship incongruence and the findings from the limited studies are inconsistent. For example, Rubin et al. (2004) found that high-quality friendships protected young female adolescents with low-quality mother–child relationships from internalizing outcomes. In contrast, Laursen et al. (in press) examined whether friendship support protected youth against decreasing self-esteem when their relationships with mothers were unsupportive; support for the protective role of friendship reported in previous studies was not evidenced. Notably, many Confucian-Asian countries place a stronger emphasis on family relationships and hierarchy than English Speaking countries (Gelfand et al., 2006; Inglehart & Welzel, 2005). Thus, it may be that in South Korea, parent–child relationships compensate for low-quality friendships, but perhaps not vice versa.

The Present Study

In this study, we examined the interplay between culture and young adolescents' relationships with their mothers, fathers, and best friends in explaining variability in social-behavioral functioning. The relationship constructs that we examined were positivity and negativity. Relationship positivity includes such provisions as affection, instrumental aid, nurturance, and reliable alliance. Relationship negativity comprises such features as

conflict and antagonism. The study is a follow-up to one by Laursen and Mooney (2008) in which adolescents from an ethnically diverse community in the United States were identified as having high- and low-quality relationships with mothers, fathers, and best friends on the basis of median splits within each relationship domain (positivity and negativity, separately) and within each relationship (mother, father, and friend, separately).

Our investigation extends previous research in several notable ways. First, using a person-oriented approach, we identified distinct subgroups (latent classes) of youth with similar profiles of relationships with their mothers, fathers, and best friends. Person-oriented approaches are particularly useful in identifying heterogenous subgroups that share salient constellations of relationship patterns in parent–adolescent relationships and/or friendships (Kaniušonytė & Laursen, 2021; Laursen & Hoff, 2006). Second, we simultaneously considered both perceived support and negativity across all the three relationships within three countries. Third, to verify the cultural significance of relationship systems in youth, we examined whether the different relationship profiles were related concurrently *and* prospectively with three domains of social-behavioral functioning (aggression, anxious-withdrawal, and prosociality), all of which have been previously linked to the quality of friendships and parent–child relationships (Rubin et al., 2015). Previous research in this area did not include longitudinal data; thus, a fourth novel feature of our study is the inclusion of longitudinal outcome data from one of the participating countries (Portugal). Researchers have shown that the quality of parent–child relationships and friendships can predict changes in psychosocial and behavioral functioning during childhood and adolescence, likely because such relationships can satisfy, or fail to satisfy, social and emotional needs, which in turn, influences social behavioral tendencies (Rubin et al., 2015). Such research however has not evaluated whether relationship profiles, as they emerge in different countries with varying cultural norms and values, similarly lead to such changes over time.

Fifth, our general hypotheses and interpretation of results are informed by such cultural perspectives as those deriving from the tightness-looseness continuum and the World Values survey (Gelfand et al., 2006, 2011; Inglehart & Welzel, 2005). As noted previously, South Korea falls into the Confucian-Asian Values grouping and can be characterized as tight and more collectivistic, with a greater emphasis on hierarchical (familial) relationships. The United States falls into the English Speaking cluster and is considered to be relatively loose and highly individualistic, with a greater value placed on reciprocal relationships. Portugal falls into the Catholic European cluster and is considered to place midway on the dimension of cultural tightness (Gelfand et al., 2011; see Table S1). We expected to find evidence of cultural commonality and specificity, both in terms of the emergence of profiles and how they were related to the functioning outcomes. But due to the dearth of research in this area conducted outside of the United States, the analyses are inherently exploratory, and thus, we only offer tentative hypotheses.

Cultural Commonality

In all three countries, we expected that some youth would report relationship congruence such that high-quality relationships (greater support and lower negativity) would exist with all three social "partners" (mothers, fathers, best friends). Moreover, we expected that such congruent relationship profiles would be associated with more adaptive social-behavioral outcomes than those with only one or two high-quality relationships *across all cultures*. Based on the conflict spillover perspective suggesting that negativity in one relationship or context can lead to negativity in other relationships and contexts (Martin et al., 2019), we also explored whether a relationship profile comprising high support and low negativity would be related to more adaptive social behaviors than those comprising high support and high negativity.

Cultural Specificity

Variability in relationship profiles and associated outcomes across cultures was also expected. Of particular interest was whether relationships might compensate for each other in different ways in the three countries due to differences in cultural norms and values. Given South Korean culture's relatively strong (and tight) emphasis on parent–child relationships over friendships, we thought it might be possible that unlike in the United States, South Korean youth relationship profiles with high-quality friendship and poor quality parent–child relationships would be relatively infrequent. If such relationship profiles would appear among the South Korean youth, high-quality parent–adolescent relationships (with mothers or fathers) would evince a protective effect when the best friendship was qualitatively poor, whereas a buffering effect of positive

friendship would not be expected when the quality of parent–adolescent relationships was poor. In contrast, we tentatively expected that any high-quality relationship (with mother, father, or best friend) among youth in the United States might prove to be protective when other relationships were poorer in quality due to "looser" relationship norms.

Based on Portuguese culture's moderately "tight" relationship norms (midway between the Korean and U.S. tightness scores), we surmised that there may be some profiles reflecting high-quality friendships and poor quality parent–child relationships. However, it was unclear whether positive friendships in Portugal would have the "power" to buffer young adolescents from negative social-behavioral outcomes when the quality of parent–adolescent relationships is poor.

Method

Participants and Procedures

Three samples of young adolescents from South Korea (N = 452, 10–11 years, following the strict age criteria for public school enrollment; date of birth data were unavailable), the United States (N = 210, M_{age} = 11.41, SD = .51), and Portugal (N_{Time1} = 571, M_{age} = 12.59 years, SD = .80; N_{Time2} = 279) were included in this study.

Each sample was drawn from a large urban area (Seoul, Washington DC, Lisbon), and included approximately equal proportions of boys and girls (girls = 50%, 54%, 55%, in the South Korean, US, and Portuguese samples, respectively) who were recruited from public schools. Informed parental consent was obtained for all participants, and informed adolescent assent was collected for the United States and Portugal samples. Additional available demographic information (Table S2) indicated that the majority of participants lived with both their mothers and their fathers. Of note, parental reports obtained for the U.S. sample indicated that participants were diverse with respect to race and ethnicity (49.7% White, 15.2% Asian-American, 11.3% LatinX, 10.2% bi- or multi-racial, 10.2% Black, 3.4% unspecified). Longitudinal data were not available for the South Korean sample and were insufficient for complex profile analyses of the longitudinal data for the U.S. sample (N = 108); participants in the Portuguese sample completed the same social-behavioral measures one year after the first data collection period; and chi-square tests did not reveal any significant differences in the demographics due to attrition.

An analysis of variance revealed that the Portuguese adolescents were significantly older than those in the U.S. sample followed by youth in the Korean sample, $F(2, 1{,}223) = 1{,}651.27$, $p < .001$. Chi-square tests, however, did not reveal any cross-country differences in adolescent gender, father education, and father residency status (available for the Korean and U.S. samples). However, more Portuguese mothers had less than a high school degree, more mothers in the U.S. sample had a college degree, and more South Korean mothers had a high school or some college relative to the other mothers, $\chi^2(4, N = 704) = 84.48$, $p < .001$.

Measures

Youth Perceptions of Relationship Quality

Support and negativity. Participants completed the *Network of Relationships Inventory* (Furman & Buhrmester, 1992), a 33-item instrument assessing 11 characteristics of close relationships. This study focuses on *social support* (companionship, instrumental aid, intimacy, nurturance, affection, admiration, and reliable alliance) and *negativity* (conflict and antagonism) in relationships with mothers, father, and best friends. Instructions directed youth with more than one mother or father to report on the one with whom they lived in the United States; and whom they consider as the mother or father figure if participants did not live with their mothers and/or fathers in the Korean and Portuguese samples. Items were rated on a 5-point scale (1: *little or none* to 5: *the most*). The NRI has adequate internal reliability across gender, and different ethnic and age groups (Furman & Buhrmester, 1992). Mean support and negativity scales were calculated, consistent with recommendations by Furman and Buhrmester (1992); higher scores indicated greater perceived support or negativity in each relationship. In this study, Cronbach's α for support from mothers, fathers, and best friends, in each sample, were all acceptable (range = .66–.96).

Peer Nominations of Youth Sociobehavioral Functioning

Aggression, anxious-withdrawal, and prosociality. Participants in each sample completed the *Extended Class Play* in their schools (Bowker, Rubin, Burgess, Booth-LaForce, & Rose-Krasnor, 2006). Participants were instructed to pretend to be the director of an imaginary class play and to nominate their same-sex classmates for different roles in the play. Seven roles were descriptive of aggression

(e.g., "Fights", "Teases others"), four items pertained to anxious-withdrawal (e.g., "Doesn't talk much or talks quietly", "Stays by self"), and six items assessed prosociality (e.g., "Helps others"; "Always plays fair"). All nominations received for each item were first summed, and then proportionalized within grade/school (to adjust for variability in the number of nominators) and standardized within sex. Mean scores were next calculated, with higher scores indicating high levels of aggression, anxious-withdrawal, and prosociality. In this study, all Cronbach's αs were acceptable (range = .76–.93).

Data Analytic Strategies

To identify distinct relationship profiles across youths' relationships with mothers, fathers, and friends, latent profile analysis (LPA) was conducted. LPA is a person-oriented approach to cluster subgroups of youths (known as class, a latent variable) with similar profiles defined by a set of continuous indicators (e.g., perceived support and negativity). Although person-oriented analyses such as Latent Class/Profile Analysis cannot address issues of causality or directionality and are primarily exploratory in clustering participants into latent classes that are known to be dependent on the attributes (or indicators) included in model (Collins & Lanza, 2010), we utilized them herein as they provide a nuanced understanding of subgroups of youth with respect to how relationship patterns are manifested in support and negativity domains across relationships with mothers, fathers, and best friends, and how such patterns were uniquely related to social-behavioral functioning in the United States, Portugal, and South Korea.

Prior to conducting analyses for the primary research questions, we explored a series of preliminary multi-group LPAs with the known class method treating cultures as a latent variable using the entire sample (combined across the three countries) to explore the potential number of classes. In these analyses, to determine the optimal number of classes, models were fit in steps, starting with a one class model with a subsequent increase in the number of classes by comparing 1-to-k + 1 class models. As shown in Table S5, model comparisons were conducted using a set of model fit indices, including the Bayesian information criteria (BIC; Schwarz, 1978) and the sample-size adjusted BIC (ABIC; Sclove, 1987); lower scores represented better fitting models and the 4-class solution showed the best fit to the entire sample.

Guided by these results, latent profile analyses were subsequently conducted to identify distinct relationship patterns within each culture to confirm whether the 4-class solution showed the best fit to the data from each country. As shown in Table S5, model comparisons were conducted using the BIC, ABIC, and the Lo–Mendell–Rubin (LMR) likelihood ratio test (Lo, Mendell, & Rubin, 2001), indicating improvement in fit over the model with $k - 1$ class solution. Based on established procedures (Jung & Wickrama, 2008), we estimated the entropy measure (higher values closer to 1 indicating better accuracy in classification of individuals into their respective classes), parsimony, interpretability, and practical utility, as well as the sample size of the smallest class following Lindblom et al.'s (2014) recommendation to retain classes larger than 4%. Once the best fitting model was selected, class differences in relationship support and negativity mean levels were evaluated using Wald tests within LPA, in both omnibus and pairwise forms (see Nylund, Asparouhov, & Muthén, 2007). Additionally, we conducted follow-up analyses using a mixed model (Relationship × Class) analyses of variance (ANOVAs), with relationships as a within-subjects factor to describe how each relationship (mother, father, best friend) differed on adolescent-reported support and negativity mean levels within each class.

We next evaluated whether relationship profiles (classes) differed with respect to the outcomes. We did so with the distal outcomes' framework within LPA using the three-step approach (the BCH method) utilizing posterior probability (Asparouhov & Muthen, 2014; the three-step approach is represented in Figure S1). In doing so, class differences were evaluated with Wald tests, in both omnibus and pairwise forms, on all between-groups comparisons on the social-behavioral functioning outcomes at Time 1, and, for the Portuguese sample, at Time 2, after controlling Time 1 scores. All latent analyses were conducted using Mplus version 8.1 (Muthén & Muthén, 1998–2017) using full-information maximum-likelihood estimation that allows missing data on the measured indicator variables. Missing data on the study variables were minimal (< 4%).

Results

The results from our person-oriented analyses are presented in two sections. First, we present the relationship profiles that emerged in each of the three countries. We next present results evaluating the concurrent relations (and also longitudinal linkages for the Portuguese sample) between the relationship profiles and the social-behavioral outcomes in each

country. Correlations and descriptive statistics are presented in Tables S3 and S4, respectively.

Distinct Profiles of Relationships and Social-Behavioral Functioning

Based on the analytic strategies and set of fit indices described earlier, we determined the four-class solution as the best fitting model for each country. LPA model fit indices and model comparisons are presented in Table S5. Compared to the LPA 3-class or 5-class solutions, a 4-class solution showed the best fit to the data for the Korean and Portuguese samples, based on the BIC, LMR tests, entropy, and the smallest class size guideline, and for the U.S. sample based on the BIC, entropy, and the smallest class size guideline as there was no significant improvement in fit across 2- through 6-class solutions from the LMR tests. To guide the interpretation of class and profile characteristics, Table 1 presents LPA parameter estimates of relationship support and negativity for each of the latent relationship classes. Table S6 presents results from the mixed ANOVAs treating relationships a within-subjects factor. Figure 1 shows estimated means for support and negativity across relationships for each of the four classes. As shown in Table 2, multi-group analysis (overall and pairwise Wald tests) delineated different social-behavioral functioning across these relationship profiles at Times 1 and 2, with longitudinal/Time 2 findings available for the Portuguese sample only.

Table 1
LPA Estimates Means of Relationship Support and Negativity by Relationship Profile Classes

	South Korea			
	C1 high-quality (N = 173)	C2 discordant (N = 108)	C3 moderate-quality (N = 132)	C4 low-quality (N = 39)
(M) Support	4.65 $(.03)_a$	4.57 $(.04)_a$	3.95 $(.05)_b$	3.20 $(.15)_c$
(F) Support	4.56 $(.03)_a$	4.44 $(.05)_a$	3.77 $(.04)_b$	2.35 $(.08)_c$
(Fr) Support	3.84 $(.08)_a$	3.43 $(.08)_b$	3.09 $(.07)_c$	2.89 $(.15)_c$
(M) Negativity	2.13 $(.07)_a$	3.25 $(.12)_b$	2.78 $(.09)_c$	3.24 $(.16)_b$
(F) Negativity	2.01 $(.06)_a$	3.08 $(.10)_b$	2.62 $(.08)_c$	2.94 $(.17)_{bc}$
(Fr) Negativity	1.67 $(.05)_a$	2.54 $(.12)_b$	1.95 $(.06)_c$	2.13 $(.10)_c$
	United States			
	C1 high-quality (N = 97)	C2 discordant (N = 14)	C3 moderate-quality (N = 85)	C4 high-quality friendship (N = 14)
(M) Support	4.47 $(.04)_a$	4.35 $(.06)_a$	3.84 $(.12)_b$	3.19 $(.34)_b$
(F) Support	4.31 $(.05)_a$	4.24 $(.12)_a$	3.73 $(.11)_b$	2.28 $(.16)_c$
(Fr) Support	4.05 $(.07)_a$	3.31 $(.37)_{ab}$	3.71 $(.08)_b$	4.03 $(.14)_{ab}$
(M) Negativity	2.41 $(.10)_a$	3.26 $(.22)_b$	2.96 $(.12)_b$	3.04 $(.30)_b$
(F) Negativity	2.36 $(.09)_a$	3.12 $(.20)_b$	2.73 $(.13)_b$	3.17 $(.43)_{ab}$
(Fr) Negativity	1.47 $(.05)_a$	2.71 $(.61)_b$	1.67 $(.09)_b$	1.53 $(.13)_{ab}$
	Portugal			
	C1 high-quality (N = 325)	C2 discordant (N = 73)	C3 uninvolved father (N = 65)	C4 moderate-quality friendship (N = 108)
(M) Support	4.31 $(.04)_a$	4.28 $(.08)_{ab}$	4.12 $(.07)_b$	2.84 $(.15)_c$
(F) Support	4.08 $(.05)_a$	4.09 $(.09)_a$	1.55 $(.10)_b$	2.84 $(.10)_c$
(Fr) Support	3.98 $(.05)_a$	4.30 $(.07)_b$	3.75 $(.11)_c$	3.34 $(.09)_d$
(M) Negativity	2.58 $(.05)_a$	3.69 $(.12)_b$	2.56 $(.10)_a$	2.70 $(.12)_{ac}$
(F) Negativity	2.43 $(.05)_a$	3.45 $(.13)_b$	1.83 $(.21)_c$	2.30 $(.12)_{ac}$
(Fr) Negativity	1.95 $(.04)_a$	3.01 $(.11)_b$	2.11 $(.09)_a$	1.92 $(.06)_{ac}$

Note. Standard errors are presented in parentheses. Different subscripts denote significant differences based on pairwise Wald tests (all dfs = 1, ps < .05). M = mother; F = father; Fr = friend; LPA = latent profile analysis.

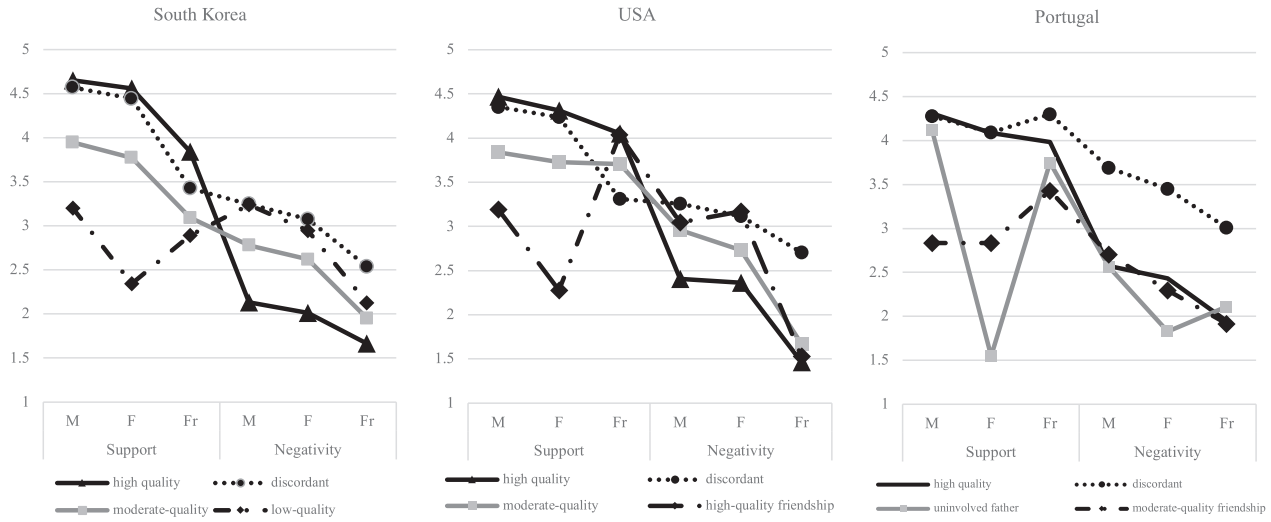

Figure 1. Estimated means of perceived support and negativity with mothers, fathers, and friends for each relationship profile, in each country.
Note. M refers to the means in mother-child relationships, F refers to the means in father-child relationships, Fr refers to the means in best friendships; lines depict means for each relationship in terms of support and negativity for youth in each relationship profile.

South Korea: Latent Relationship Profiles

LPA identified two classes displaying the highest level of relationship support with different levels of negativity (Table 1; Table S6; Figure S1). The largest class was labeled the *high-quality* class; it comprised 173 young adolescents (C1; 38% of the sample) who reported the highest level of support from mothers followed by fathers and moderately high levels of support from best friends (mother > father > friends, Table S6) with low levels of negativity (mother > father > friends) across all the relationships. The second class was labeled the *discordant* class (C2; 24%, n = 108); it was characterized by the highest level of both support and negativity with mothers, followed by higher levels of support and negativity with fathers coupled with moderate levels of support and negativity with friends (mother > father > friends for both support and negativity). The third class, the *moderate-quality* class (C3; 29%, n = 132), showed moderately high levels of support and moderate levels of negativity with mothers and fathers, while reporting moderate levels of support and low levels of negativity with friends (mother > father > friends for both support and negativity). Lastly, the fourth and smallest class was labeled a *low-quality* class (C4; 9%, n = 39); it was characterized by the lowest level of support from fathers and moderate levels of support from mothers and friends, with high levels of negativity with mothers and fathers and low negativity with friends (mother > father > friends for both support and negativity). Pairwise Wald tests showed class differences such that youth in the *high-quality* and *discordant* classes reported significantly greater support from their mothers and fathers, compared to the *moderate-quality* and *low-quality* classes; youth in the *high-quality* class reported greater support from friends, relative to all the other classes; and youth in the *moderate-quality* class reported significantly greater support from their mothers and fathers relative to the *low-quality* class. Additionally, youth in the *discordant* class reported higher levels of negativity in relationships with their mothers, fathers, and friends compared to youth in the *high-quality* and *moderate-quality* classes, but there were no significant class differences in negativity with mothers and fathers between the *discordant* and *low-quality* classes. None of the demographic variables varied across different classes with one exception: youth in the *high-quality* and *discordant* classes were more likely than those in the *moderate-quality* and *low-quality* classes to have a college degree. There were also no significant gender differences across class profiles for the South Korea sample or the other two countries (Table S2).

South Korea: Latent Relationship Profiles and Social-Behavioral Functioning

Wald tests revealed significant class differences in all domains of social-*behavioral* functioning (Table 2). Youth in the *low-quality class* were nominated by peers as more anxious-withdrawn and less prosocial than all the other classes. Youth in this

Table 2
Estimated Means and Standard Errors of Social-Behavioral Functioning at Time 1 and Time 2, After Controlling for Time 1, by LPA classes

	Korea LPA classes									
	High-quality (N = 173)		Discordant (N = 108)		Moderate-quality (N = 132)		Low-quality (N = 39)			
Social-behavioral functioning	M	SE	M	SE	M	SE	M	SE	Wald df (3)	p
Aggression	$.11_a$	.08	$-.06$	.09	$-.12_b$	.07	$.26_a$	.15	8.06	.045
Anxious withdrawal	$-.14_a$	.07	$-.00_{ab}$	.09	$.11_b$	.09	$.48_c$	.14	17.62	.001
Prosociality	$.18_a$	.07	$.04_a$	.10	$.00_a$	.08	$-.33_b$	.09	21.66	< .001

	U.S. LPA classes									
	High-quality (N = 97)		Discordant (N = 14)		Moderate-quality (N = 85)		High-quality friendship (N = 14)			
	M	SE	M	SE	M	SE	M	SE	Wald df (3)	p
Aggression	$-.20_a$	.06	.07	.18	$-.02$	.10	$.53_b$	.31	8.10	.044
Anxious withdrawal	$-.05$	.09	.22	.30	$.14_a$	.12	$-.32_b$	.12	8.84	.032
Prosociality	$.45_a$	.12	$-.05_b$	.14	.21	.10	$.01_b$	.13	9.49	.023

	Portugal LPA classes									
	High-quality (N = 325)		Discordant (N = 73)		Uninvolved father (N = 65)		Moderate-quality friendship (N = 108)			
	M	SE	M	SE	M	SE	M	SE	Wald df (3)	p
T1 Aggression	.01	.04	.16	.09	$-.09$	.10	.19	.08	6.51	.089
T1 Anxious withdrawal	$.14_a$	.05	$-.14b$	.07	$-.02$	.08	$-.02$	.08	9.43	.024
T1 Prosociality	$.19_a$	.05	$-.07b$	.08	$.29_a$	.10	$-.16_b$	.06	25.15	< .001
T2 Aggression	$.00_a$	.06	.31b	.13	$.04_{ab}$	.13	$-.24_a$	.10	11.37	.010
T2 Anxious withdrawal	$.00_{ab}$	.06	.31b	.13	$.04_{ab}$	.13	$-.24_a$	.10	11.27	.010
T2 Prosociality	$.00_a$	.06	.31a	.13	$.04_{ab}$	.13	$-.25_b$	.10	11.54	.009

Note. Longitudinal data were not available for the Korean and U.S. samples. Different subscripts denote significant differences based on pairwise Wald tests (all dfs = 1, ps < .05). LPA = latent profile analysis.

low-quality class were also viewed by peers as more aggressive than those in the moderate-quality class. Youth in the *moderate-quality class* also were more aggressive and anxious-withdrawn relative to the *high-quality* class. Among two classes reporting greater support from mothers and fathers, however, those in the *discordant* class (high support and high negativity) did not significantly differ in their *social-behavioral* functioning from the *high-quality* class (high support and low negativity).

The United States: Latent Relationship Profiles

Similar to the Korean sample, two profiles of high levels of support with different levels of negativity emerged (Table 1; Table S6; Figure S1). The first and largest class, the *high-quality* class, comprised 97 young adolescents (C1; 46% of the sample) who reported high levels of support (mother > father > friends; see Table S6 for pairwise comparisons) and low levels of negativity (mother = father > friend) across all the relationships. The second class, the *discordant* class (C2; 7%, n = 14), reported high levels of support from mothers and fathers with moderate support from best friends (mother = father > friend) coupled with higher levels of negativity with mothers, fathers, and friends (mother > friend). The *moderate-quality* class (C3; 40%, n = 85), reported moderately high levels of support across all the relationships with

moderately high levels of negativity with mothers and fathers along with low negativity with friends (mother > father > friends). Lastly, the *high-quality friendship* class (C4; 7%, $n = 14$), reported high levels of support from friends with moderate to low levels of support from mothers and fathers (friend > mother > father), and high levels of negativity with mothers and fathers, relative to friends (mother = father > friend). Pairwise class comparisons revealed that youth in both the *high-quality* and *discordant* classes perceived greater support from their mothers and fathers, compared to those in the *moderate-quality* and *high-quality friendship* classes. Youth in the *discordant* class reported greater negativity with mothers, fathers, and friends compared to the *high-quality* class, but did not differ in negativity compared to the *moderate-quality* and *high-quality friendship* classes. Although youth in the *high-quality friendship* class reported greater support from their friends (compared to their mothers and fathers), there was no significant class difference in friendship support relative to all the other classes (Table 1). There were no significant class differences in demographics (Table S2).

The United States: Latent Relationship Profiles and Social-Behavioral Functioning

Wald tests examining class differences revealed that youth in the *high-quality friendship class* displayed greater aggression and lower prosociality relative to the *high-quality class* (Table 2). The *high-quality friendship* class was rated by their peers as lower in anxious-withdrawal compared to the moderate-quality class. The *discordant* class showed lower prosociality compared to the *high-quality* class.

Portugal: Latent Relationship Profiles

Similar to the Korean and U.S. samples, there were two profiles of high levels of support with different levels of negativity (Table 1; Table S6; Figure S1). The first and largest class was a *high-quality* class, comprising 325 youth (C1; 57% of the sample), who reported high levels of support (mother > father > friends) and low levels of negativity across all the relationships (mother > father > friends). The second class, the *discordant* class (C2; 13%, $n = 73$), reported high levels of both support (mother = friend > father) and negativity (mother > father > friends). The third and smallest class, the *uninvolved father* class (C3; 11%, $n = 65$), was similar to the *high-quality class* with reports of high level of support and low levels of negativity in relationships with mothers and friends, but unique in their reporting of the lowest levels of support and negativity in father–child relationships (mother > friends > father for both support and negativity). Lastly, the fourth class, the *moderate-quality friendship* class (C4; 19%, $n = 108$), reported moderate support and low negativity in friendships, and lower levels of support and modest levels of negativity with mothers and fathers (friend > mother = father for support; mother > father > friend for negativity). Pairwise class comparisons revealed that youth in the *high-quality* class perceived greater support from their mothers and fathers, compared to the *uninvolved father* and *moderate-quality friendship* classes, while youth in the *discordant* class reported greater negativity with mothers, fathers, and friends compared to all the other classes (Table 1). There were no significant class differences in the demographic information (Table S2).

Portugal: Latent Relationship Profiles and Social-Behavioral Functioning

Wald tests revealed significant class differences in prosociality and anxious-withdrawal (Table 2). At Time 1, the *high-quality* and *uninvolved father* classes were nominated by peers as being more prosocial compared to the *discordant* and *moderate-quality friendship* classes. The *discordant* class was less withdrawn relative to the *high-quality* class. When the outcomes were examined over time, the *discordant* class was rated as becoming increasingly aggressive compared to both the *high-quality* and *moderate-quality friendship* classes, and became more withdrawn relative to the *moderate-quality friendship* class. The *moderate-quality friendship* class was nominated by their peers as becoming increasingly less prosocial compared to the *high-quality* and *discordant* classes at Time 2 (Table 2).

Discussion

Young adolescents' relationships with their mothers, fathers, and best friends do not exist in isolation, but instead, in interconnected relationship networks that together impact adjustment outcomes. These relationship networks are also influenced by the larger cultural context. Thus, studies that examine only one type of close relationship can account for neither the unique and interactive contributions of the other types of relationships nor the

significance of relationship profiles that may differ across cultures. This study sought to address the limitations of past research by using a person-oriented approach to determine how relationship support and negativity are manifested across different relationships, and whether relationship profiles differ in their associations to (mal)adaptive social-behavioral functioning among young adolescents from South Korea, the United States, and Portugal. In doing so, we recognized that the form of relationships (i.e., amount of support and negativity) may not look identical across cultures. Thus, we characterized the significance of relationship profiles by the link to social-behavioral functioning *within* each culture, diverting from direct empirical comparisons as to which culture demonstrated more relationship support or negativity. We discuss the findings next, conservatively focusing only on those relationship profiles that represented more than 19% of the culture-specific sample, even though all classes constituted > 6% of the sample and remained in the analyses in line with Lindblom et al.'s (2014) recommendation to retain classes larger than 4%.

Cultural Commonality in Relationships Profiles and Functioning

The present investigation is unique in its focus on identifying culturally common and culturally specific relationship profiles and their relations to young adolescent functioning in three different countries. In doing so, we were able to evaluate whether specific relationship profiles differ in the degree to which they are adaptive in countries that vary significantly in relationship values characterized on a tightness-looseness continuum. As expected, results revealed some evidence of cross-cultural commonality in relationship profiles. Despite the purported reorganization of familial and extrafamilial relationships during early adolescence, the majority of youth in all three countries reported considerably *congruent* or high-quality relationships with their mothers, fathers, and best friends, supporting the contention that parent–child relationships continue to be one primary source of social support for most young adolescents (Collins & Laursen, 2013). Additionally, the *high-quality* profile was generally associated with the most optimal adjustment outcomes in all three countries. For example, in the United States, this profile was contemporaneously associated with lower aggression and greater prosociality relative to the high-quality friendship class. This profile, as it existed in South Korea, was associated with lower anxious-withdrawal relative to the *moderate-quality* and *low-quality* classes, and greater prosociality relative to the *low-quality* class. Similarly, this profile in Portugal was concurrently *and* longitudinally related to greater prosociality compared to the *moderate-quality friendship* class, and was concurrently associated with greater prosociality relative to the *discordant* class. These findings are consistent with attachment theory and previous studies showing that early unconditional support with a caregiver contributes positively to feelings about the self and others and the development of social skills and social competence across cultures (Booth-LaForce et al., 2006; Ehrlich et al., 2012; Hiatt, Laursen, Mooney, & Rubin, 2015).

Cultural Specificity in Relationships Profiles and Functioning

With regard to cultural specificity, several noteworthy findings emerged. First, South Korean youth demonstrated mostly congruent relationship profiles (except for the smallest, *low-quality* class) that were characterized by greater support from and negativity with their mothers and fathers, relative to friends (mother > father > friend). This finding may reflect the South Korean culture's relatively strong emphasis on parent–child relationships over nonfamilial relationships and, in accordance with Confucian-Asian cultures, stronger adherence to social norms (tightness) with respect to relationship provisions and interactions with family (Gelfand et al., 2011). Of course, the results could also reflect the age of the South Korean participants, who were younger than those in the other two countries, and may not yet have started to seek increased support from peers.

Other notable findings were that the *high-quality* class in South Korea was associated with lower anxiously withdrawn behavior than was the case for the *moderate-quality* and *low-quality* classes and with higher aggressive behavior than the *moderate-quality* class. In contrast, the *high-quality* class in Portugal was rated as *more* anxiously withdrawn relative to the *discordant* class. Taken together, these findings suggest that the adaptiveness of the high-quality profile may differ in these two countries, but additional research will be needed to replicate these findings and determine why such differences emerged.

Although a *discordant class* was similarly identified in all three cultures (high support and high negativity in all three relationships), significant

cultural variations were observed. First, the size of the *discordant class* varied across countries. In South Korea, this group represented 23.7% of the sample, whereas the class represented only 6.7% of the U.S. sample and 9.9% of the Portugal sample. This suggests that this profile may be more common in South Korea. Due to the small sample sizes for the discordant class in the United States and Portugal, however, we refrain from further speculation regarding this profile in these two countries. But, with the South Korea sample, we think it is noteworthy that Korean youth in the *discordant* class did not differ in their social-behavioral functioning relative to the other Korean profiles. This finding is novel and may be explained by relationship characteristics and circumstances, as well as by cultural norms, specific to South Korea. Although South Korea, a Confucian-Asian country, is less likely to accept, as normative, conflict and negative interactions in parent–child relationships (Trommsdorff, 2006), South Korean adolescents do frequently report that their parents use controlling and coercive communication styles. This is especially the case in situations pertaining to academic achievement (Park & Kim, 2006). As a result, it is becoming increasingly common for South Korean young adolescents to report that their parents are controlling, especially with reference to parental pressure directed at school performance. Thus, we speculate that the *discordant* profile may reflect youth *perceptions* of authoritarian parenting (high support and high control) and high but normative tension surrounding academic achievement (Park & Kim, 2006). However, we did not have information on the sources of negativity with parents to confirm this contention, and thus, future research is clearly merited.

Another noteworthy pattern of findings pertained to *fathers*, who continue to be understudied in adolescent relationships research. A relationship profile reflecting the *lack* of support in father–child relationships emerged in all three cultures, but the constellations of support and negativity in their other relationships and the associated *social-behavioral* functioning differed across cultures. Specifically, an *uninvolved father* class emerged among Portuguese youth; those in this relationship profile reported low levels of support and negativity in their relationships with their fathers, but high levels of support and low levels of negativity with their mothers and best friends. Relative to the *discordant* and *moderate-quality friendship* classes, Portuguese youth in the *uninvolved father*, as well as the *high-quality*, classes were viewed as more prosocial at Time 1. This finding is consistent with the notion that high-quality relationships with mothers and best friends can serve as protective factors when relationships with fathers are poor and the *mother primacy hypothesis* that the child's relationship quality with mother is more predictive of child social-emotional outcomes than is that with father (Suess, Grossmann, & Sroufe, 1992). Additional research is clearly needed, but given that this country would fall in the middle of the tightness-looseness continuum, strict adherence to *maternal* relationship norms alone may be sufficient to foster positive youth outcomes. In contrast, norms with regard to *father*–child relationships may be more permissive, and therefore, less influential. Since the turn of the century, Portugal has moved rapidly toward a dual-earner family model (Ramos, Cesnuityte, Wall, & Joye, 2018). This has gradually led to less of the hierarchical and asymmetric family relationships that were traditionally regulated by a distant, provider, and authoritarian father (Wall, 2015). However, Portuguese fathers continue to be typically less involved in activities related to direct and indirect care when compared with Portuguese mothers (Monteiro et al., 2010; Wall, 2015).

Another low father support profile in Portugal, the *moderate-quality friendship* class (i.e., moderate friendship support > mother = father support) was associated with low prosociality (compared to the *high-quality* and *uninvolved father* classes). Although friendships have become increasingly significant to Portuguese youth younger generations (Gouveia, Aeby, & Cesnuityte, 2018), parent–child relationships continue to be of primary significance for the provision of emotional support and relational closeness (Aboim, Vasconcelos, & Wall, 2013; Wall, Gouveia, Aeby, & Cesnuityte, 2018). This finding is consistent with Rubin et al.'s (2004) report that high, but not average or moderate quality friendships, protected American youth from negative outcomes associated with low-quality parent–child relationships.

In contrast, a low father support profile in the United States emerged, the *high-quality friendship* class (i.e., friendship support > mother support > father support). Interestingly, youth in this profile were viewed as more aggressive (relative to the high-quality class), less anxiously withdrawn (than the moderate-quality class), and more prosocial (than the discordant class). Taken together, these findings suggest a complex picture regarding the protective power of high friendship support, at least in the United States, which aligns with mixed findings in this area of research (e.g., Laursen et al.,

in press), and may suggest that either the protective effect of high friend support depends on the outcome studied, or perhaps that the presence of poor quality (greater negativity and lower support) parent–child relationships (as was the case with this profile) impacts the extent to which friendships can function protectively. Future researchers would do well to evaluate these speculations longitudinally.

Limitations and Future Directions

Cross-cultural research can be challenging in part because it is difficult to find comparable groups of participants in different countries. This study included young adolescents (10–14 years), all residing in each nation's capital region but the samples were not nationally representative and differed in age. Due to age differences and likely other demographic differences unavailable in the data (e.g., religiosity), we adopted a conservative approach and refrained from making direct empirical comparisons across the samples. But we acknowledge here that it will be important for future research to make such comparisons when samples are appropriately similar. Additionally, the focus of this study was on young adolescents' *perceptions* of their relationships. Including observational data would also be useful for understanding the ways in which relationship profiles manifest in different cultures and so too would partner (mother, father, best friend) perceptions of the relationship. It would also be interesting to examine other contributors to relationship support and negativity, including the individual characteristics of the adolescents, their mothers, fathers, and friends (e.g., social behavior, personality, relationship networks, mental health), and how such characteristics influence youth relationship profiles and social-behavioral functioning across cultures. Researchers would also do well to consider the importance of the *broader* relationship network in which parent–child and friendships are embedded by evaluating other close relationships (e.g., siblings, extended families, larger peer groups, and romantic relationships). Another notable limitation includes the lack of longitudinal data for the Korean and U.S. samples.

This study did not directly assess individuals' cultural values. Although cultural variations have been recognized in a multitude of cultural dimensions (e.g., tightness-looseness, individualistic-collectivistic), individuals' variability within a culture has also been reported (Raeff, 2006). Future study warrants examination of variations in individual value systems to understand the role of cultural orientations in their *social-behavioral* functioning. Our analytic approach (LPA) is useful for the identification of subgroups that share similar relationship profiles but is *inherently exploratory* in nature. Thus, replications with independent samples are needed before generalization of the present findings is made. Larger sample sizes would also be helpful to further explore the small class profiles found, and therefore not discussed in depth, in this study.

Finally, although our study was guided by theory and the extant literature, the design of this study (concurrent associations in the Korean and U.S. sample; concurrent and longitudinal associations in the Portuguese samples) did not allow us to evaluate the direction of effects as well as potential transactional relations between youths' relationships and the various *social-behavioral* outcomes (e.g., aggressive behavior; Rubin et al., 2015). Thus, we suggest that it is critical for future work in this area to apply longitudinal methods, thereby allowing for the evaluation, not only of the direction of effects, but also of longitudinal change patterns of relationship profiles and social-behavioral functioning within and across cultures.

Despite these limitations, this study has several notable strengths. To understand the significance of relationship profiles in social-behavioral functioning across different cultures, we examined young adolescents' relationships with mothers, fathers, and best friends, simultaneously, as a network of relationships in three countries including understudied cultures such as Korea and Portugal. Using a person-oriented approach, this study investigated individual differences in youth relationship profiles with mothers, fathers, and best friends. In doing so, we adopted a multi-dimensional approach considering salient relationship features during adolescence such as perceived support and negativity to appreciate the multi-faceted nature of relationship networks. Our multi-informant method (i.e., self and peer-reports) is also a strength. Informed by the tightness-looseness continuum (Gelfand et al., 2006), which is relatively new to developmental science, our cross-cultural study design and analyses showed some evidence of cultural *commonality*, but also novel evidence of cultural *specificity* that subsequently may help inform efforts to develop more effective, culturally sensitive programs to facilitate youths' social-behavioral functioning in an increasingly diverse world.

In conclusion, the findings of this study highlight the complex interplay between young adolescents' relationships with their mothers, fathers, and best

friends, and culture in explaining variability in distinct relationship profiles and social-behavioral functioning. Four distinct relationship profiles identified in the South Korea, United States, and Portuguese samples illuminate culturally common (*high-quality*; *discordant*) or culturally specific (e.g., *high-friendship quality; uninvolved father*) relationship patterns. The findings also highlight commonality in the relations between a high-quality relationship profile and adaptive social-behavioral functioning, as well as cultural specificity in the differential effects of distinct relationship profiles on outcomes.

References

Aboim, S., Vasconcelos, P., & Wall, K. (2013). Support, social networks and the family in Portugal: Two decades of research. *International Review of Sociology*, *23*, 47–67. https://doi.org/10.1080/03906701.2013.771050

Asparouhov, T., & Muthen, B. O. (2014). Auxiliary variables in mixture modeling: Three-step approaches using M plus. *Structural Equation Modeling: A Multidisciplinary Journal*. Mplus Web Notes: No. 15. *21*, 329–341. https://doi.org/10.1080/10705511.2014.915181

Bagwell, C. L., & Bukowski, W. M. (2018). Friendship in childhood and adolescence: Features, effects, and processes. In W. M. Bukowski, B. Laursen, & K. H. Rubin (Eds.), *Handbook of peer interactions, relationships, and groups* (pp. 371–390). Guilford. https://doi.org/10.1002/9780470147658.chpsy0310

Booth-LaForce, C., Oh, W., Kim, A. H., Rubin, K. H., Rose-Krasnor, L., & Burgess, K. (2006). Attachment, self-worth, and peer-group functioning in middle childhood. *Attachment & Human Development*, *8*, 309–325. https://doi.org/10.1080/14616730601048209

Bowker, J. C. W., Rubin, K. H., Burgess, K. B., Booth-LaForce, C., & Rose-Krasnor, L. (2006). Behavioral characteristics associated with stable and fluid best friendship patterns in middle childhood. *Merrill-Palmer Quarterly*, *52*, 671–693. https://doi.org/10.1353/mpq.2006.0000

Bowlby, J. (1973). *Attachment and loss: Volume II. Separation: Anxiety and anger*. New York, NY: Basic Books.

Branje, S. (2018). Development of parent–adolescent relationships: Conflict interactions as a mechanism of change. *Child Development Perspectives*, *12*, 171–176. https://doi.org/10.1111/cdep.12278

Collins, L. M., & Lanza, S. T. (2010). *Latent class and latent transition analysis: With applications in the social, behavioral, and health sciences*. Hoboken, NJ: John Wiley & Sons. https://doi.org/10.1002/9780470567333

Collins, W. A., & Laursen, B. (2013). Parent-adolescent relationships and influences. In *Handbook of adolescent psychology* (2nd ed., pp. 331–361). Wiley. https://doi.org/10.1002/9780471726746.ch11

Ehrlich, K. B., Dykas, M. J., & Cassidy, J. (2012). Tipping points in adolescent adjustment: Predicting social functioning from adolescents' conflict with parents and friends. *Journal of Family Psychology*, *26*(5), 776–783. https://doi.org/10.1037/a0029868

French, D. C., Bae, A., Pidada, S., & Lee, O. (2006). Friendships of Indonesian, South Korean, and US college students. *Personal Relationships*, *13*, 69–81. https://doi.org/10.1111/j.1475-6811.2006.00105.x

French, D. C., Rianasari, M., Pidada, S., Nelwan, P., & Buhrmester, D. (2001). Social support of Indonesian and U.S. children and adolescents by family members and friends. *Merrill Palmer Quarterly*, *47*(3), 377–394. https://doi.org/10.1353/mpq.2001.0015

Furman, W. (2001). Working models of friendships. *Journal of Social and Personal Relationships*, *18*, 583–602. https://doi.org/10.1177/0265407501185002

Furman, W., & Buhrmester, D. (1992). Age and sex differences in perceptions of networks of personal relationships. *Child Development*, *63*, 103–115. https://doi.org/10.2307/1130905

Gelfand, M. J., Jackson, J. C., Pan, X., Nau, D., Pieper, D., Denison, E., . . . Wang, M. O. (2021). The relationship between cultural tightness–looseness and COVID-19 cases and deaths: A global analysis. *The Lancet Planetary Health*, *5*, e135–e144. https://doi.org/10.1016/s2542-5196(20)30301-6

Gelfand, M. J., Nishii, L. H., & Raver, J. L. (2006). On the nature and importance of cultural tightness-looseness. *Journal of Applied Psychology*, *91*, 1225–1244. https://doi.org/10.1037/0021-9010.91.6.1225

Gelfand, M. J., Raver, J. L., Nishii, L., Leslie, L. M., Lun, J., Lim, B. C., & Yamaguchi, S. (2011). Differences between tight and loose cultures: A 33-nation study. *Science*, *332*, 1100–1104. https://doi.org/10.1126/science.1197754

Gouveia, R., Aeby, G., & Cesnuityte, V. (2018). A first portrait of personal networks in a comparative perspective. In K. Wall, J.-A. Gauthier, R. Gouveia, E. D. Widmer, & V. Cesnuityte (Eds.), *Families and personal networks* (pp. 61–97). London, UK: Palgrave McMillan. https://doi.org/10.1057/978-1-349-95263-2_3.

Hiatt, C., Laursen, B., Mooney, K. S., & Rubin, K. H. (2015). Forms of friendship: A person-centered assessment of the quality, stability, and outcomes of different types of adolescent friends. *Personality and Individual Differences*, *77*, 149–155. https://doi.org/10.1016/j.paid.2014.12.051

Hinde, R. A. (1987). *Individuals, relationships and culture: Links between ethology and the social sciences*. Cambridge, UK: Cambridge University Press.

Hinde, R. A. (1997). *Relationships: A dialectical perspective*. Psychology Press.

Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: software of the mind: intercultural cooperation and its importance for survival*. New York, London: McGraw-Hill.

Inglehart, R., & Welzel, C. (2005). *Modernization, cultural change and democracy: The human development sequence*. New York, NY: Cambridge University Press.

Jung, T., & Wickrama, K. A. S. (2008). An introduction to latent class growth analysis and growth mixture modeling. *Social and Personality Psychology Compass*, *2*, 302–317. https://doi.org/10.1111/j.1751-9004.2007.00054.x

Kaniušonytė, G., & Laursen, B. (2021). Parenting styles revisited: A longitudinal person-oriented assessment of perceived parent behavior. *Journal of Social and Personal Relationships*, *38*, 210–231. https://doi.org/10.1177/0265407520960818

Kerr, M., Stattin, H., Biesecker, G., & Ferrer-Wreder, L. (2003). Relationships with parents and peers in adolescence. In I.B. Weiner (Ed.), *Handbook of psychology* (pp. 395–419). New York, NY: John Wiley & Sons. https://doi.org/10.1002/0471264385.wei0616

Krappmann, L. (1996). Amicitia, Drujba, Shin-Yu, Philia, Freundschaft, friendship: On the cultural diversity of a human relationship. In W. M. Bukowski, A. F. Newcomb, & W. W. Hartup (Eds.), *The company they keep: Friendship in childhood and adolescence* (pp. 19–40). New York, NY: Cambridge University Press.

Laursen, B., Dickson, D. J., Boivin, M., Bowker, J. C., Brendgen, M., & Rubin, K. H. (in press). Revisiting the hypothesis that friends buffer against diminished self-esteem arising from poor parent-adolescent relationships: A replication study. *Developmental Psychology*.

Laursen, B., Furman, W., & Mooney, K. S. (2006). Predicting interpersonal competence and self-worth from adolescent relationships and relationship networks: Variable-centered and person-centered perspectives. *Merrill-Palmer Quarterly*, *52*, 572–600. https://doi.org/10.1353/mpq.2006.0030

Laursen, B., & Hoff, E. (2006). Person-centered and variable-centered approaches to longitudinal data. *Merrill-Palmer Quarterly*, *52*, 377–389. https://doi.org/10.1353/mpq.2006.0029

Laursen, B., & Mooney, K. S. (2008). Relationship network quality: Adolescent adjustment and perceptions of relationships with parents and friends. *American Journal of Orthopsychiatry*, *78*, 47–53. https://doi.org/10.1037/0002-9432.78.1.47

Lindblom, J., Flykt, M., Tolvanen, A., Vänskä, M., Thtinen, A., Tulppala, M., & Punamäki, R.-L. (2014). Dynamic family system trajectories from pregnancy to child's first year. *Journal of Marriage and Family*, *76*, 796–807. https://doi.org/10.1111/jomf.12128

Lo, Y., Mendell, N. R., & Rubin, D. B. (2001). Testing the number of components in a normal mixture. *Biometrika*, *88*, 767–778. https://doi.org/10.1093/biomet/88.3.767

Martin, M. J., Sturge-Apple, M. L., Davies, P. T., & Gutierrez, G. (2019). Attachment behavior and hostility as explanatory factors linking parent–adolescent conflict and adolescent adjustment. *Journal of Family Psychology*, *33*, 586–596. https://doi.org/10.1037/fam0000529

Monteiro, R., Fernandes, M., Veríssimo, M., Costa, I. P., Torres, N., & Vaughn, B. (2010). Father's perception about their involvement in bi-parental families. associations with what mothers want and children's characteristics. *Revista Interamericana De Psicologia*, *44*, 120–130.

Muthén, L. K., & Muthén, B. O. (1998–2017). *Mplus user's guide*. Los Angeles, CA: Author.

Nylund, K. L., Asparouhov, T., & Muthén, B. O. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. *Structural Equation Modeling: A Multidisciplinary Journal*, *14*, 535–569. https://doi.org/10.1080/10705510701575396

Park, Y. S., & Kim, U. (2006). Family, parent-child relationship, and academic achievement in Korea. In U. Kim, K.-S. Yang, & K.-K. Hwang (Eds.), *Indigenous and cultural psychology* (pp. 421–443). New York, NY: Springer. https://doi.org/10.1007/0-387-28662-4_19

Raeff, C. (2006). *Always separate, always connected: Independence and interdependence in cultural contexts of development*. Mahwah, NJ: Lawrence Erlbaum Associates. https://doi.org/10.4324/9781410616999

Ramos, V., Cesnuityte, V., Wall, K., & Joye, D. (2018). Contextualising personal networks across birth cohorts and countries. In K. Wall, J.-A. Gauthier, R. Gouveia, E. D. Widmer, & V. Cesnuityte (Eds.), *Families and personal networks* (pp. 19–60). London, UK: Palgrave McMillan.

Rubin, K. H., Bukowski, W. M., & Bowker, J. C. (2015). Children in peer groups. In R. M. Lerner (Ed.), *Handbook of child psychology and developmental science, Vol. 4: ecological settings and processes* (7th edn., pp. 175–222). New York, NY: Wiley-Blackwell.

Rubin, K. H., Dwyer, K. M., Booth-LaForce, C., Kim, A. H., Burgess, K. B., & Rose-Krasnor, L. (2004). Attachment, friendship, and psychosocial functioning in early adolescence. *The Journal of Early Adolescence*, *24*, 326–356. https://doi.org/10.1177/0272431604268530

Rubin, K. H., Oh, W., Menzer, M., & Ellison, K. (2011). Dyadic relationships from cross-cultural perspective: Parent–child relationships and friendships. In X. Chen & K. H. Rubin (Eds.), *Socioemotional development in the cultural context* (pp. 208–236). New York, NY: Guilford.

Schwarz, G. (1978). Estimating the dimension of a model. *The Annals of Statistics*, *6*, 461–464. https://doi.org/10.1214/aos/1176344136

Sclove, S. L. (1987). Application of model-selection criteria to some problems in multivariate analysis. *Psychometrika*, *52*, 333–343. https://doi.org/10.1007/bf02294360

Suess, G. J., Grossmann, K. E., & Sroufe, L. A. (1992). Effects of infant attachment to mother and father on quality of adaptation in preschool: From dyadic to individual organisation of self. *International Journal of Behavioral Development*, *15*, 43–65. https://doi.org/10.1177/016502549201500103

Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, *96*, 506–520. https://doi.org/10.1037/0033-295x.96.3.506

Trommsdorff, G. (2006). Parent–child relations over the life-span. A cross-cultural perspective. In K. H. Rubin & O. B. Chung (Eds.), *Parenting beliefs, behaviors, and parent–child relations. A crosscultural perspective* (pp. 143–183). New York, NY: Psychology Press. https://doi.org/10.4324/9780203942901

Wall, K. (2015). Fathers in Portugal: From old to new masculinities. In J. L. Roopnarine (Ed.), *Fathers across cultures: The importance, roles, and diverse practices of dads* (pp. 132–154). Santa Barbara: ABC-CLIO.

Wall, K., Gouveia, R., Aeby, G., & Cesnuityte, V. (2018). Changing meaning of family in personal relationships: A comparative perspective. In K. Wall, J.-A. Gauthier, R. Gouveia, E. D. Widmer, & V. Cesnuityte (Eds.), *Families and personal networks: An international comparative perspective* (pp. 99–130). London, UK: Palgrave McMillan.

Supporting Information

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

Figure S1. Young Adolescents' Relationships With Mothers, Fathers and Best Friends and Social-Behavioral Functioning From the Latent Profile Analysis With Distal Outcomes Framework

Table S1. The Participating Countries' Cultural Orientations

Table S2. Demographics and Class Characteristics (Korean and Portuguese Demographics Partially Available From Subsamples)

Table S3. Correlations Among Study Variables for the Korean, USA, Portuguese Samples

Table S4. Descriptive Statistics

Table S5. Fit Indices From LPA Model

Table S6. Means, Standard Deviations, Effect Sizes of Relationship Support and Negativity within Each Class in Korea, USA, and Portugal