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Transnational Relations Between Perceived Parental Acceptance and Personality Dispositions of Children and Adults: A Meta-Analytic Review

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What is This?

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Abdul Khaleque¹ and Ronald P. Rohner¹

Abstract

Three questions drawn from parental acceptance—rejection theory were addressed: (a) Are children's perceptions of parental acceptance transnationally associated with specific personality dispositions? (b) Are adults' remembrances of parental acceptance in childhood transnationally associated with these personality dispositions? and (c) Do relations between parental acceptance and offspring's personality dispositions vary by gender of parents? All studies used the child and adult versions of the Parental Acceptance—Rejection Questionnaires (PARQ) for Mothers and for Fathers, as well as the child and adult versions of the Personality Assessment Questionnaire (PAQ). Results showed that both maternal and paternal acceptance in childhood correlated significantly in all countries with all seven personality dispositions of adult offspring. Adults' remembrance of paternal acceptance in childhood correlated significantly with all adult personality dispositions except dependence.

Keywords

parental acceptance-rejection, personality dispositions, meta-analysis

This meta-analytic review is part of an ongoing effort to test the pancultural generalizability of major postulates in parental acceptance-rejection theory (PARTheory). PARTheory is an evidence-based theory of socialization and life span development that aims to predict and explain major causes, consequences, and other correlates of interpersonal acceptance and rejection (R. P. Rohner, 1986; R. P. Rohner, Khaleque, & Cournoyer, 2011). PARTheory predicts that parental acceptance-rejection has consistent effects on personality dispositions, psychological adjustment, and behavioral functioning of both children and adults worldwide (R. P. Rohner, 1975, 1986; R. P. Rohner & Rohner, 1980). The theory draws from the phylogenetic perspective (R. P. Rohner, 1975, 1986). This perspective refers in PARTheory to the assumption that humans have a phylogenetically acquired need for positive response from people most important to them (also see Baumeister & Leary, 1995; Bjorklund & Pellegrini, 2002; Leary, 1999f). This need in childhood refers to parental love, affection, care, comfort, support, and nurturance. The need for positive response becomes more differentiated and complex in adulthood to include the need, wish, or yearning for positive regard of significant others (R. P. Rohner, Khaleque, & Cournoyer, 2011). PARTheory also assumes that when this need for positive response is not met, people have the phylogenetically based tendency to develop a specific constellation of social, emotional, and cognitive dispositions (R. P. Rohner, 1986).

The theory is composed of three subtheories: personality subtheory, coping subtheory, and sociocultural systems subtheory. Because this article focuses on central issues within personality subtheory, we focus mainly on that aspect of the theory. The other two subtheories are not elaborated, but they are described at length in R. P. Rohner (1986, 2004), R. P. Rohner et al. (2011), and elsewhere.

PARTheory's personality subtheory focuses on four fundamental postulates. First, it asserts that children are likely to be affected in a specific way described below when they perceive themselves to be accepted or rejected by their parents. Second, it argues that adults' remembrances of parental acceptance in childhood are likely to be associated with the same form of psychological adjustment as found among children who perceive themselves to be accepted by their parents—though often to a lesser extent. Third, it asserts that the perception of acceptance by an intimate partner or other attachment figure in adulthood is likely to be associated with the same form of psychological adjustment as experienced by accepted children. Fourth, the subtheory postulates that variations in culture, language, race, gender, and other such factors do not

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override the apparently universal tendency for individuals who perceive that they are accepted or rejected by attachment figures to develop a specific form of psychological adjustment and personality dispositions called in PARTheory the acceptance—rejection syndrome (R. P. Rohner, 2004).

Psychological adjustment in PARTheory is defined largely in terms of the acceptance-rejection syndrome (R. P. Rohner, 2004), which specifies that individuals who perceive themselves to be accepted by attachment figures are likely to develop (a) little hostility or aggression, (b) independence, (c) positive self-esteem, (d) positive self-adequacy, (e) emotional stability, (f) emotional responsiveness, and (g) positive worldview. On the other hand, individuals who perceive themselves to be rejected by attachment figures are likely to develop problems with (a) anger, hostility, aggression, passive aggression, or the management of hostility and aggression; (b) dependence or defensive independence, depending on the form, frequency, timing, duration, and intensity of perceived rejection; (c) negative self-esteem; (d) feelings of inadequacy; (e) emotional instability; (f) emotional unresponsiveness; and (g) negative worldview.

These seven personality dispositions are expected to develop because the human need for positive response is proposed to be such a powerful motivator that when the need is not met by parents or other attachment figures, individuals tend to become anxious and insecure. In an attempt to allay these feelings and to satisfy the need for positive response, rejected individuals are, according to the theory, likely to increase their bids for positive response and become more dependent. In addition, rejected children and adults are likely to feel anger, resentment, and other painful emotions that may become intensely distressing. As a result, many rejected persons close off emotionally and become unresponsive in an effort to protect themselves from further rejection. In doing so, they often have problems being able or willing to express love or accepting it from others. Because of this psychological hurt, some rejected individuals become defensively independent. That is, like many healthy individuals they make relatively few behavioral bids for positive response. But unlike healthy individuals, these persons continue to crave warmth and support, though they sometimes do not recognize or admit it. Indeed, because of the overlay of anger, distrust, and other negative emotions generated by chronic rejection they often positively deny the need.

In addition to anger, emotional unresponsiveness, and dependence or defensive independence, individuals who feel rejected are predicted by PARTheory's personality subtheory to develop feelings of low self-esteem and impaired self-adequacy. These feelings are thought to come about because—as noted in symbolic interaction theory (Cooley, 1902; Mead, 1934)—individuals tend to view themselves as they think their parents or significant others view them. Thus, insofar as children and adults perceive that their attachment figures do not love them, they are likely to feel they are unlovable, perhaps even unworthy of being loved (negative self-esteem). In addition, because they feel they are unable to

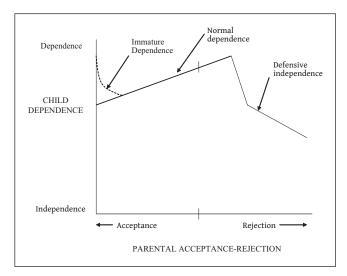


Figure 1. Expected relationship between parental acceptance-rejection and dependence Adapted from R. P. Rohner (1986).

get one of their most basic needs met—the need for love and acceptance—they often generalize this feeling to the belief that they are not good at satisfying their needs more generally (negative self-adequacy). Anger, negative self-feelings, and the other consequences of perceived rejection tend to diminish rejected persons' capacity to deal effectively with stress. Because of this, such individuals often become emotionally upset when confronted with stressful situations that accepted (loved) people handle with greater equanimity (emotional instability). These acutely painful feelings associated with perceived rejection tend to lead children and adults to develop a view of life and interpersonal relationships as being untrustworthy, hostile, unfriendly, emotionally unsafe, threatening, or dangerous (i.e., negative worldview).

Each of the personality dispositions mentioned above except for dependence or defensive independence—is postulated in PARTheory to vary in a linear way with degrees of perceived acceptance and rejection. Dependence, however, is theoretically expected to have a more complex, nonlinear association with perceived acceptance-rejection (R. P. Rohner, 1986), as shown in Figure 1. Specifically, the theory postulates that loved children are generally dependent to a moderate degree (i.e., they need to receive and are able to give warmth and affection nondefensively). And as already noted, as children experience greater rejection they tend to increase their bids for positive response (i.e., they tend to act in a more dependent manner), but only up to a point. Beyond that point, which varies from individual to individual, anger and the other emotional concomitants of perceived rejection begin to interfere with the individual's willingness or ability to continue seeking positive response from other people though the yearning for such response is thought to remain unabated.

For these reasons rejected individuals are likely to appear to become less dependent. This reduction in apparent dependence at this point is called defensive independence because rejected individuals are thought to be defending themselves from further hurt of anticipated or perceived rejection. For reasons such as these the relation between perceived acceptance—rejection and dependence is expected to be nonlinear. Despite this expectation, most studies that have been based on PARTheory have treated dependence as if it had a linear association with perceived rejection like the other six dispositions do. This approach is probably acceptable insofar as respondents in any given study tend to perceive significantly more parental acceptance than rejection. It becomes unacceptable, however, in studies where a large number of respondents perceive themselves to be rejected.

History of PARTheory-Related Meta-Analyses

This is the fifth meta-analytic review to assess the transnational generalizability of major postulates from PARTheory's personality subtheory. The first review (Khaleque & Rohner, 2002a) was based on 43 studies representing 7,563 respondents in 15 nations and most major ethnic groups in the United States (e.g., African Americans, Asian Americans, European Americans, and Hispanic Americans). Results of that review supported PARTheory's postulate about the pancultural association between perceived parental acceptance and the overall psychological adjustment of both children and adults.

The second meta-analytic review (Khaleque & Rohner, 2002b) was based on 51 studies representing 6,898 respondents from eight nations and most major American ethnic groups. That meta-analysis assessed the reliability (as measured by coefficient alpha) of the two major classes of self-report questionnaires used in all these studies, the Parental Acceptance–Rejection Questionnaire (PARQ) and the Personality Assessment Questionnaire (PAQ). Results of the study confirmed that both sets of measures were reliable in all studies.

The third meta-analytic review (R. P. Rohner & Khaleque, 2010) expanded and refined the results of the first review, and it added an additional element. Specifically, that metaanalysis analyzed the association between adult males' versus females' overall psychological adjustment in relation to their remembrances of maternal versus paternal acceptance in childhood. In addition, it analyzed men's and women's psychological adjustment in relation to their perceptions of their intimate partners' current behavior (i.e., acceptance or rejection) toward them. The principal question was whether the psychological adjustment of adults who perceived themselves to be rejected by their intimate partners is affected negatively in the same way as is the psychological adjustment of adults who remembered themselves to have been rejected by major caregivers in childhood. That meta-analysis was based on 17 studies involving 3,568 adults in ten nations. Results showed that perceived partner acceptance in adulthood and remembered paternal and maternal acceptance in childhood correlated highly with the current psychological adjustment of both men and women.

Finally, the fourth meta-analytic review (Khaleque & Rohner, in press), based on 68 studies involving 19,511 respondents from 22 countries on five continents, showed that the effect sizes of correlations between perceived maternal and paternal acceptance and offspring's psychological adjustment were significant for both children and adults across all countries studied. The results also showed that the mean weighted effect size of the correlation between perceived *paternal* acceptance and children's psychological adjustment was significantly stronger than the mean weighted effect size of the correlation between perceived *maternal* acceptance and children's psychological adjustment.

The current study takes these meta-analyses a step further. Although the prior studies reviewed the transnational association between perceived or remembered acceptance—rejection and overall *psychological adjustment*, this study breaks the concept of psychological adjustment (as construed in PARTheory) into its constituent components, specifically the seven personality dispositions that are central to the acceptance—rejection syndrome described earlier. Our objective was to examine whether each of the seven dispositions is associated transnationally with perceived maternal and paternal acceptance in childhood and with adults' remembrances of their childhood experiences of maternal and paternal acceptance.

Method

Selection of Studies for the Meta-Analysis. To locate studies for the meta-analysis, we conducted a literature review of relevant research from 1975 (the year the PARQ and PAQ were originally constructed) through 2010. Studies archived in the Ronald and Nancy Rohner Center for the Study of Interpersonal Acceptance and Rejection at the University of Connecticut provided the main sources of information. In addition, published and unpublished studies listed in the extended bibliography of more than 3,000 studies dealing with interpersonal acceptance-rejection posted on the Rohner Center's website (www.csiar.uconn.edu) identified many references not available directly through the center itself. We also conducted a computer-based Internet search using PsycINFO, Current Contents, Dissertation Abstracts International, Social Work Abstracts, Sociological Abstracts, Anthropological Literature, Sociofile, Child Development Abstracts, National Council on Family Relations, and ERIC data systems. Keywords used were parental acceptancerejection and personality dispositions.

Selection Criteria. Studies were included only if they explicitly assessed children's or adults' perceptions of maternal and paternal acceptance as construed in PARTheory as well as

assessed the seven personality dispositions most central to PARTheory's personality subtheory. In effect this limited the meta-analysis to those studies that used the child and adult versions of the PARQ—or the acceptance—rejection portion of the PARQ/Control—as well as the child and adult versions of the PAQ. These measures are described below.

Unpublished studies were actively sought along with published ones in the extended bibliography noted above as well as from researchers from around the world known to have used the PARQ (or PARQ/Control) and PAQ in their research. We did this because published studies may be biased in favor of significant results (Kraemer & Andrews, 1982; Wolf, 1986). Inclusion of unpublished studies helps minimize the likelihood of this bias.

Study Sample. A total of 36 studies met the selection criteria. Among these, 14 were published and 22 were unpublished. Table 1 shows correlations between the mother and father versions of the PARQ and each of the seven PAQ subscales for children. The studies yielded 52 effect sizes (41 for mothers and 11 for fathers) for aggression, 33 effect sizes (25 for mothers and 8 for fathers) for dependence, 53 effect sizes (41 for mothers and 12 for fathers) for self-esteem, 53 effect sizes (41 for mothers and 12 for fathers) for self-adequacy, 53 effect sizes (41 for mothers and 12 for fathers) for emotional responsiveness, 50 effect sizes (38 for mothers and 12 for fathers) for emotional stability, and 51 effect sizes (39 for mothers and 12 for fathers) for worldview.

Table 2 shows relations between the mother and father versions of the PARQ and each of the seven PAQ subscales for adults. The studies yielded 18 effect sizes (12 for mothers and 6 for fathers) for each of six subscales including aggression, dependence, positive self-esteem, emotional responsiveness, emotional stability, and positive worldview. The positive self-adequacy subscale yielded 17 effect sizes (11 for mothers and 6 for fathers).

Collectively, these studies included 10,943 respondents, 8,573 of whom were children (52% boys and 48% girls) and 1,370 of whom were adults (45% men and 55% women). Children's overall mean age was 12 years, with a range of 9 through 18 years. Adults' overall mean age was 28 years, with a range of 18 through 89 years. The meta-analysis consisted of respondents from 18 countries including Bangladesh, Barbados, Czechoslovakia, Egypt, Estonia, Finland, India, Iran, Jamaica, Korea, Kuwait, Mexico, Nigeria, Pakistan, Puerto Rico, St. Kitts, Turkey, and the United States. These nations lie on four continents including Africa, Asia, Europe, and North America as well as in the Caribbean. The meta-analysis also included respondents from major ethnic groups of the United States, including African Americans, Asian Americans, European Americans, and Hispanic Americans.

Meta-Analytic Procedures

Computation of aggregate effect sizes. Because all effect sizes in this meta-analysis are based on Pearson's r, we followed

the computational method proposed by Rosenthal (1994) for synthesizing the r family effect sizes. However, as correlation coefficients increase in magnitude, the distribution of rs becomes increasingly skewed. To address this problem, we used Fisher's z transformation procedure, also suggested by Rosenthal. Thus, we converted rs to z scores and computed their unweighted means. We then back converted the zs to rs (unweighted effect sizes). Moreover, to assess the impact of sample sizes on rs, we also computed weighted means by adjusting the z scores in proportion to the sample sizes, according to the recommendation of Hedges and Olkin (1985). We then back converted these weighted means to corresponding rs (weighted effect sizes).

Heterogeneity in effect sizes. Major differences in sample characteristics, measures used, and other such factors can produce significant heterogeneity in effect sizes, creating a problem for aggregating the results of multiple studies in a meta-analysis. In fact, Hedges and associates (Hedges & Becker, 1986; Hedges & Olkin, 1985) cautioned that effect sizes can be meaningfully aggregated across studies only if they provide a reasonably homogeneous estimate of the population effect size. To address this issue, we used Rosenthal's (1984; Wolf, 1986) formula to test heterogeneity of effect sizes and identify possible outliers. Results of analyses showed no significant heterogeneity and no outliers.

Fail-safe. N. As noted earlier, published studies generally tend to be biased toward significant findings, and many studies with nonsignificant results are unpublishable, thereby increasing the likelihood of a Type I publication-bias error (Rosenthal, 1979). To determine the possibility of such a publication bias or file-drawer problem in the current meta-analysis, we computed the fail-safe number recommended by Rosenthal (1979) and Cooper (1979). This test provides an estimate of the minimum number of additional studies with nonsignificant results that would be required to reject statistically significant meta-analytic results as nonsignificant (Durlak & Lipsey, 1991). According to Rosenthal (1995), meta-analytic results are considered to be robust if the fail-safe number exceeds the critical value: 5 times the number of studies, plus 10.

Measures. As noted, all studies in this the meta-analysis used the (a) child or adult versions of the PARQ for Mothers and for Fathers (Child and Adult PARQ: Mothers and Fathers (R. P. Rohner & Khaleque, 2005) and (b) the child or adult versions of the PAQ (Child and Adult PAQ; R. P. Rohner & Khaleque, 2005). Extensive evidence reported in R. P. Rohner and Khaleque (2005) showed that these measures are reliable and valid for use in the United States and globally for multiethnic and cross-cultural research.

PARQ. In the Child PARQ, children reflect on their parents' (mothers' or fathers') current behavior toward them; in the Adult PARQ, adults reflect on their childhood experiences of maternal or paternal acceptance—rejection. The two versions are virtually identical except for the use of verb tense:

 Table I. Studies Regarding Relations Between PARQ: Mother and Father and PAQ Subscales for Children

Egypt Child: Mother 892 Kuwait Child: Father 892 Iurkey Child: Mother 145 Turkey Child: Mother 1821 Barbados Child: Mother 319 Barbados Child: Mother 319 United States Child: Mother 101 United States Child: Mother 101 United States Child: Mother 171 Pakistan Child: Mother 171 Pakistan Child: Mother 171 Pakistan Child: Mother 171 Pakistan Child: Mother 171 Punted States Child: Mother 171 India Child: Mother 50 India Child: Mother 57 India Child: Mother 174 United States Child: Mother 187 United States Child: Mother 227 United States Child: Mother 227 United States Child: Mother 227 United States Child: Mother 281		aggression Independence	self-esteem	self-adequacy	responsiveness	stability	worldview
Kuwait Child: Father 892 Iran Child: Mother 145 Turkey Child: Mother 1821 Turkey Child: Mother 1821 Barbados Child: Mother 319 Barbados Child: Mother 319 United States Child: Mother 119 United States Child: Mother 220 Korea Child: Mother 171 Pakistan Child: Mother 171 Pakistan Child: Mother 250 Rorea Child: Mother 171 Pakistan Child: Mother 270 Czech Child: Mother 270 India Child: Mother 570 United States Child: Mother 570 United States Child: Mother 174 United States Child: Mother 175 United States Child: Mother 178 United States Child: Mother 1881 United States Child: Mother 1881	Mother 892	.46***	.50***	***95°	.43***	.27**	.49***
Iran Child: Mother 145 Turkey Child: Mother 1821 Barbados Child: Mother 1821 United States Child: Mother 119 United States Child: Mother 171 Pakistan Child: Mother 171 Pakistan Child: Mother 171 Pakistan Child: Mother 170 Bangladesh Child: Mother 170 Rorea Child: Mother 170 Bangladesh Child: Mother 170 India Child: Mother 55 India Child: Mother 57 India Child: Mother 174 United States Child: Mother 181 United S	Father 892	.44***	.55***	.55***	.43***	.27**	.47***
Turkey Child: Mother 1821 Turkey Child: Father 1821 Barbados Child: Mother 319 Barbados Child: Mother 319 United States Child: Mother 101 United States Child: Mother 220 Korea Child: Mother 220 Korea Child: Mother 171 Pakistan Child: Mother 171 Pakistan Child: Mother 171 Pakistan Child: Mother 170 Bangladesh Child: Mother 170 India Child: Mother 55 India Child: Mother 57 India Child: Mother 57 India Child: Mother 57 India Child: Mother 57 India Child: Mother 174 United States Child: Mother 57 United States Child: Mother 174 United States Child: Mother 185 United States Child: Mother 181 United States Child: Mother 181 United States Child: Mother 281	Mother 145	.64***	.34**	.39***	.44***	.46***	.4 ***
Turkey Child: Father 1821 Barbados Child: Mother 319 Barbados Child: Mother 319 United States Child: Mother 101 United States Child: Mother 119 United States Child: Mother 220 Korea Child: Mother 25 Korea Child: Mother 171 Pakistan Child: Mother 171 Pakistan Child: Mother 170 Bangladesh Child: Mother 170 Czech Child: Mother 50 India Child: Mother 50 India Child: Mother 57 India Child: Mother 57 India Child: Mother 57 India Child: Mother 57 United States Child: Mother 174 United States Child: Mother 281	Mother 1821	.34***	.32***	.30**	*4	.24**	.21*
Barbados Child: Mother 319 Barbados Child: Father 319 United States Child: Mother 101 United States Child: Mother 119 United States Child: Mother 220 Korea Child: Mother 25 Korea Child: Mother 171 Pakistan Child: Mother 171 Pakistan Child: Mother 170 Bangladesh Child: Father 100 Finland Child: Mother 50 India Child: Mother 50 India Child: Mother 57 India Child: Mother 174 United States Child: Mother 227 United States Child: Mother 281	Father 1821	.42*** .12*	.34**	.25**	*0I·	.22**	*9I:
Barbados Child: Father 319 United States Child: Mother 101 United States Child: Mother 119 United States Child: Mother 220 Korea Child: Mother 171 Pakistan Child: Mother 171 Pakistan Child: Mother 100 Finland Child: Mother 50 India Child: Mother 50 India Child: Mother 50 India Child: Mother 57 India Child: Mother 174 United States Child: Mother 188 United States Child: Mother 281	Child: Mother 319	.40*** .13*	.58***	*****	.43	.24**	39***
United States Child: Mother 101 United States Child: Mother 51 United States Child: Mother 220 Korea Child: Mother 171 Pakistan Child: Mother 171 Pakistan Child: Mother 171 Pakistan Child: Mother 170 Bangladesh Child: Mother 50 India Child: Mother 50 India Child: Mother 57 India Child: Mother 174 United States Child: Mother 227 United States Child: Mother 281	Child: Father 319	.25** .17*	.45***	.33**	.33**	*9I:	.33**
United States Child: Mother 51 United States Child: Mother 220 Korea Child: Mother 220 Korea Child: Mother 171 Pakistan Child: Mother 171 Pakistan Child: Mother 170 Bangladesh Child: Father 50 Bangladesh Child: Mother 50 India Child: Mother 57 India Child: Mother 174 United States Child: Mother 175 United States Child: Mother 176 United States Child: Mother 178 United States Child: Mother 174 United States Child: Mother 174	Child: Mother 101 -	31*	71.	.35*	.32*	.32*	<u>4</u> .
United States Child: Mother 119 United States Child: Mother 220 Korea Child: Mother 220 Korea Child: Mother 171 Pakistan Child: Mother 100 Finland Child: Mother 50 Czech Child: Mother 50 India Child: Mother 50 India Child: Mother 57 India Child: Mother 174 United States Child: Mother 227 United States Child: Mother 281	Child: Mother	.19 .20	9.	.21	.25*	.02	<u>. I.</u>
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Korea Child: Mother 25 Korea Child: Mother 171 Pakistan Child: Mother 171 Bangladesh Child: Father 50 Czech Child: Mother 228 Puerto Rico Child: Mother 50 India Child: Mother 57 India Child: Mother 174 United States Child: Mother 227 United States Child: Mother 281	Child: Mother 220 -	.29**	.23*	.32**	.34**	.24*	.33**
Korea Child: Mother 171 Pakistan Child: Mother 100 Finland Child: Father 100 Bangladesh Child: Father 50 Czech Child: Mother 228 Puerto Rico Child: Mother 94 India Child: Mother 55 India Child: Mother 57 India Child: Mother 57 India Child: Mother 57 India Child: Mother 57 India Child: Mother 100 India Child: Mother 57 India Child: Mother 57 India Child: Mother 174 United States Child: Mother 227 United States Child: Mother 174 United States Child: Mother 281	Mother 25 -	.58** .36*	**29 .	*49*	<u>*15.</u>	.21	**94 .
Pakistan Child: Mother 100 Finland Child: Father 100 Bangladesh Child: Father 50 Czech Child: Mother 228 Puerto Rico Child: Mother 50 India Child: Mother 50 India Child: Mother 57 United States Child: Mother 174 United States Child: Mother 175 United States Child: Mother 175 United States Child: Mother 227 United States Child: Mother 281	Mother	.55***	.52**	**49**	.51	.37**	.46***
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Bangladesh Child: Mother 50 Bangladesh Child: Father 50 Czech Child: Mother 228 India Child: Mother 50 India Child: Mother 50 India Child: Mother 57 United States Child: Mother 174 United States Child: Mother 174 United States Child: Mother 174 United States Child: Mother 175 United States Child: Mother 227 United States Child: Mother 764 St. Kitts Child: Mother 764 St. Kitts Child: Mother 281 United States Child: Mother 281 United States Child: Mother 281	Father	.42**	.35*	<u>*</u>	.28*	.29*	.26*
Bangladesh Child: Father 50 Czech Child: Mother 228 Puerto Rico Child: Mother 50 India Child: Mother 50 India Child: Mother 57 United States Child: Mother 174 United States Child: Mother 174 United States Child: Mother 172 United States Child: Mother 174 United States Child: Mother 227 United States Child: Mother 764 St. Kitts Child: Mother 764 St. Kitts Child: Mother 281 United States Child: Mother 281 United States Child: Mother 281	Child: Mother 50	.13	.26*	.28*	.34**	.04	.20
Czech Child: Mother 228 Puerto Rico Child: Mother 50 India Child: Mother 50 India Child: Mother 50 India Child: Mother 57 United States Child: Mother 174 United States Child: Mother 227 United States Child: Mother 764 St. Kitts Child: Mother 764 St. Kitts Child: Mother 281 United States Child: Mother 281 United States Child: Mother 281	Child: Father 50	.39*	.33*	.28*	.36*	.26*	.34*
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India Child: Mother 57 United States Child: Mother 316 United States Child: Mother 174 United States Child: Mother 174 United States Child: Mother 101 United States Child: Mother 227 United States Child: Mother 764 St. Kitts Child: Mother 764 St. Kitts Child: Mother 281 United States Child: Mother 281 United States Child: Mother 349 United States Child: Mother 381 United States Child: Mother 381 United States Child: Mother 381	Mother 55 -	.64** .24*	01.	.25*	.37*	.37*	**44.
United States Child: Mother 316 United States Child: Mother 174 United States Child: Mother 174 United States Child: Mother 101 United States Child: Mother 227 United States Child: Mother 112 United States Child: Mother 764 St. Kitts Child: Mother 349 United States Child: Mother 281 United States Child: Mother 281 United States Child: Mother 389 Child: Mother 389 Child: Mother 381	Mother 57 -	.19 .20	40	.21	.26*	<u>8</u>	.28*
United States Child: Mother 174 United States Child: Mother 142 United States Child: Mother 101 United States Child: Mother 227 United States Child: Mother 112 United States Child: Mother 764 St. Kitts Child: Mother 349 United States Child: Mother 281 United States Child: Mother 381 United States Child: Mother 381	Child: Mother 316 -	.45*** .08	.40**	.40***	.55***	.40***	.51**
United States Child: Mother 142 United States Child: Mother 101 United States Child: Mother 227 United States Child: Mother 112 United States Child: Mother 764 St. Kitts Child: Mother 349 United States Child: Father 281 United States Child: Mother 381 United States Child: Mother 381	Child: Mother 174 -	.46***	.39**	<u>***</u>	.54***	.47***	.45***
United States Child: Mother 101 United States Child: Mother 227 United States Child: Mother 112 United States Child: Mother 764 St. Kirts Child: Mother 349 United States Child: Mother 281 United States Child: Mother 281 United States Child: Mother 389	Child: Mother 142 -	.42** .06	.45***	.42**	.55***	.33**	.57***
United States Child: Mother 227 United States Child: Mother 112 United States Child: Mother 764 St. Kitts Child: Mother 349 United States Child: Father 281 United States Child: Mother 281 United States Child: Mother 335	Child: Mother 101 -	.3I*	71.	.35*	.32*	.32*	<u>4</u> .
ohner (1979) United States Child: Mother 112 United States Child: Mother 764 St. Kitts Child: Mother 349 United States Child: Father 281 United States Child: Mother 281 Onited States Child: Mother 35	Child: Mother 227 -	.38**	.51***	.53***	***09	.32**	.46***
United States Child: Mother 764 St. Kitts Child: Mother 349 United States Child: Father 281 United States Child: Mother 281 haki-Sircar (1982) India Child: Mother 35	Child: Mother	- ** * -	.53***	.5I***	.36**	.40***	.39***
St. Kitts Child: Mother 349 United States Child: Father 281 United States Child: Mother 281 haki-Sircar (1982) India Child: Mother 35	Child: Mother		.38***	<u>4</u> .	.47***	.35***	.44 ***
United States Child: Father 281 United States Child: Mother 281 haki-Sircar (1982) India Child: Mother 35	Mother 349 –	.38**	.43***	.28**	.33**	*/1.	.25**
United States Child: Mother 281 haki-Sircar (1982) India Child: Mother 35	Child: Father 281	.43*** .27**	.53***	.39***	.49***	<u>*</u> E:	<u>4</u> .
India Child: Mother 35	Child: Mother 281	•	.45***	<u>***</u>	.38**	.26**	.39**
	Mother	•	10:	.12	.59***	.36**	.35**
Mother 52 –	Child: Mother 52 -	.11. 71.	· 15	.35*	.43*	91.	.23*

Table I. (continued)

				Hostillity		Positive	Positive	Emotional	Emotional	Positive
Study	Country	PARQ version	Z	aggression	Independence	self-esteem	self-adequacy	responsiveness	stability	worldview
R. P. Rohner and Chaki-Sircar (1982) India	India	Child: Mother	35	17	I	.32*	.22	80:	71.	.37*
R. P. Rohner and Chaki-Sircar (1982)	India	Child: Father	35	47*	I	.34*	.43*	*44.	.55*	<u>4</u> .
R. P. Rohner et al. (2007)	Bangladesh	Child: Mother	200	26*	.23*	.34**	.28**	.40***	*9I:	.34**
R. P. Rohner et al. (2007)	Bangladesh	Child: Father	200	23*	.22*	.35**	.38**	.37**	01:	.29*
Roll (1977)	Mexico	Child: Mother	173	36**	.24**	.40***	.27**	.42***	.21*	.34**
Roll (1977)	Mexico	Child: Mother	8	23*	<u>*</u>	.30**	.29**	.36**	.21*	<u>*</u> .
Roll (1977)	Mexico	Child: Mother	73	49**	l	.52***	.25*	.23*	.23*	*****5
Steely and Rohner (2006)	Jamaica	Child: Mother	4	27**	.20*	.27**	.20*	.43***	<u>**</u> I°:	<u>-</u> .
Steely and Rohner (2006)	Jamaica	Child: Father	4	38*	01.	.37*	.26*	*	.52**	.33*
Tulviste et al. (2008)	Estonia	Child: Mother	224	48***	.35**	.30**	.40***	.45***	.33**	.57***
Tulviste et al. (2008)	Estonia	Child: Father	224	4 ***	.28**	.42***	.45***	.42***	.23**	.43***

N= number of respondents; PARQ = Parental Acceptance—Rejection Questionnaire; PAQ = Personality Assessment Questionnaire. All correlation coefficients are keyed in the direction of the correlates of perceived parental acceptance.

*p < .05. **p < .01. **p < .01.

Table 2. Studies Regarding Relations Between PARQ: Mother and Father and PAQ Subscales for Adults

Study	Country	PARQ version	N	Hostility aggression	Dependence	Positive self-esteem	Positive self-adequacy	Emotional responsiveness	Emotional stability	Positive worldview
Chyung and Lee (2008)	Korea	Adult: Mother	133	45**	.19	.51***	.56***	.50***	.50***	.39**
Chyung and Lee (2008)	Korea	Adult: Father	133	39*	.06	.51***	.45**	.27*	.38*	.45**
Haque (1981)	Nigeria	Adult: Mother	301	34**	_	.41***	.34**	.28**	.30**	.38**
Haque (1981)	Nigeria	Adult: Father	228	2 7 **	.05	.36**	.32**	.32**	.35**	.41***
Haque (1986)	Nigeria	Adult: Mother	74	49 **	_	.55***	.40**	.24*	.31*	.54***
Khan et al. (2007)	Bangladesh	Adult: Mother	235	34**	_	.44***	.40***	.48***	.29*	.39**
Khan et al. (2007)	United States		235	21*	_	.30**	.35**	.27*	.21*	.35**
Khaleque et al. (2010)	Bangladesh	Adult: Mother	342	50****	.39**	.81***	.82***	.67***	_	_
Khaleque et al. (2010)	Bangladesh	Adult: Father	342	51***	.39**	.80***	.82***	.68***	_	_
Khaleque and Shirin (2009)	Bangladesh	Adult: Mother	200	3I**	.08	.25**	.30**	.32**	_	_
Khaleque and Shirin (2009)	Bangladesh	Adult: Father	200	42**	.29**	.51***	.48***	.57***	_	_
Reddy (1982)	India	Adult: Mother	106	13	.15	.09	.19	.12	.03	.15
Rising (1999)	United States	Adult: Mother	127	13	.10	.13	.18*	.27*	.08	.08
Rising (1999)	United States	Adult: Father	127	10	.05	.16	.25*	.42**	.16	.23*
E. C. Rohner and Rohner (1978a)	United States	Adult: Mother	43	.02	.23*	.24*	.26*	.03	.09	.07
R. P. Rohner (1975)	United States	Adult: Mother	75	31*	.39*	.38*	_	.49**	.62***	.27*
R. P. Rohner (1986)	United States		147	02	.07	.28*	.30*	.36**	.15	.19*
R. P. Rohner and Brothers (1999)	United States	Adult: Father	35	47*	_	.34*	.42*	.44*	.55**	.54**
R. P. Rohner and Chaki-Sircar (1982)	India	Adult: Mother	50	17	.19	.14	.23	.15	.20	.31*
R. P. Rohner and Chaki-Sircar (1982)	India	Adult: Mother	51	−.5 7 **	.10	.29*	.37*	.51**	.52**	.71***
R. P. Rohner and Chaki-Sircar (1982)	India	Adult: Mother	35	16	_	.33*	.22	.09	.18	.37*
R. P. Rohner and Chaki-Sircar (1986)	India	Adult: Father	20	15	.18	.03	.46*	.05	.38*	.26

N = number of respondents; PARQ = Parental Acceptance–Rejection Questionnaire; PAQ = Personality Assessment Questionnaire. *p < .05. **p < .01. ***p < .01. ***p < .01.

The present tense is used in the Child PARQ, whereas the past tense is used in the Adult PARQ. Both versions are 60-item self-report measures assessing respondents' perceptions of maternal and paternal warmth/affection, hostility/aggression, indifference/neglect, and undifferentiated rejection. Undifferentiated rejection refers to individuals' belief that their parents do (or did) not really love, want, appreciate, or care about them, without necessarily experiencing any clear behavioral indicators that the parents are (or were) neglecting, unaffectionate, or aggressive toward them. Sample items on the mother version of the Child PARQ include "My mother makes me feel wanted and needed" (perceived

warmth/affection), "My mother goes out of her way to hurt my feelings" (perceived hostility/aggression), "My mother ignores me as long as I do nothing to bother her" (perceived indifference/neglect), and "My mother does not really love me" (perceived undifferentiated rejection). The mother and father versions of the Child PARQ are identical except for reference to "mother's" behavior versus "father's" behavior in each version.

Individuals respond to each item on a 4-point Likert-type scale from 4 (*almost always true*) through 1 (*almost never true*). Scores on the four acceptance–rejection scales were summed (after reverse scoring the warmth/affection scale to

create a measure of perceived coldness and lack of affection), producing an overall measure of perceived acceptance—rejection that ranges from 60 (maximum perceived acceptance) to 240 (maximum perceived rejection). All versions of the questionnaire were designed in such a way that scores at or greater than 150 reveal the experience of significantly more caregiver rejection than acceptance. Scores between 140 and 149 reveal that respondents experience serious rejection but not necessarily more overall rejection than acceptance. On the other hand, scores between 60 and 120 reveal the perception of substantial parental love.

The PARQ is available in more than 35 languages and has been used in more than 500 studies in approximately 60 nations and ethnic groups worldwide. Analyses of the reliability and validity of the measure show it to be unusually robust in international research. For example, the Khaleque and Rohner (2002b) meta-analysis revealed the mean weighted size of coefficient alpha, aggregated across all versions of the PARQ, to be .89. Moreover, mean test–retest reliability across time periods ranging from 3 weeks through 7 years (Mdn = 15 months) was shown in that study to be .62. Finally, factor analyses of the PARQ worldwide have revealed basically the same factor structure everywhere (Comunian & Gielen, 1999; Gomez & Rohner, in press; R. P. Rohner & Chaki-Sircar, 1988/2011; R. P. Rohner & Cournoyer, 1994; R. P. Rohner & Khaleque, 2005).

PAQ. The Child PAQ and Adult PAQ both contain seven subscales assessing self-reports about the seven personality dispositions central to PARTheory's personality subtheory. The child version contains 42 items; the adult version contains 63 items. Sample items on the Child PAQ include, "I think about fighting or being mean" (hostility/aggression), "I like my parents to make a fuss over me when I am hurt or sick" (dependence), "I like myself" (positive self-esteem), "I can compete successfully for the things I want" (positive self-adequacy), "It is easy for me to show my friends that I really like them" (emotional responsiveness), "I am cheerful and happy one minute and gloomy or unhappy the next" (emotional instability), and "I think the world is a good, happy place" (positive worldview).

Both children and adults respond to PAQ items on a 4-point Likert-type scale ranging from 4 (almost always true of me) through 1 (almost never true of me). A profile of an individual's overall self-reported psychological adjustment is obtained by summing the seven scale scores after reverse scoring appropriate items. Scores on the Child PAQ range from 42 (indicating healthy psychological adjustment) to 168 (indicating serious psychological maladjustment). Scores on the Adult PAQ range from 63 (indicating healthy psychological adjustment) to 252 (indicating serious psychological maladjustment). The instrument is designed such that scores at or above the test's midpoint of 105 on the child version and 157 on the adult version reveal that individuals rate themselves to be more psychologically maladjusted than adjusted.

As noted earlier, evidence shows that both versions of the PAQ are reliable and valid for use in international research. For example, Khaleque and Rohner's (2002b) meta-analysis of 1,115 youths cross-culturally revealed that the overall mean weighted size of coefficient alpha was .83. The same meta-analysis of adults revealed that the overall mean weighted size of coefficient alpha was .86. Moreover, test–retest reliability across time periods ranging from one through 18 months for the Child PAQ was .79; test–retest reliability across time periods of 12 through 18 months for the Adult PAQ was .76. Additional reliability and validity evidence is summarized in R. P. Rohner (1986/1999), R. P. Rohner and Chaki-Sircar (1988/2011), and elsewhere.

Results

Results of the meta-analysis are presented in Tables 3 through 5. Table 3 displays mean unweighted and weighted effect sizes of correlations between perceived paternal and maternal acceptance and the seven personality dispositions for children. The mean unweighted effect sizes of correlations between perceived maternal acceptance and the seven dispositions ranged from .22 through .39. The mean weighted effect sizes of correlations between perceived maternal acceptance and the seven personality dispositions ranged from .17 through .38. All were significant (p < .01). Table 3 also shows that the mean *unweighted* effect sizes of correlations between perceived paternal acceptance and the seven personality dispositions of children ranged from .21 through .38. The mean weighted effect sizes of correlations between perceived paternal acceptance and the personality dispositions ranged from .17 through .41. All effect sizes were significant (p < .01).

Table 4 shows mean unweighted and weighted effect sizes of correlations between adults' remembrances of maternal and paternal acceptance in childhood and adults' current personality dispositions. The mean unweighted effect sizes of correlation between remembered maternal acceptance and the seven dispositions ranged from .22 through .39. The mean weighted effect sizes of correlations between remembered maternal acceptance and the seven dispositions ranged from .11 through .36. All effect sizes were significant (p < .01). Finally, the mean unweighted effect sizes of correlations between remembered paternal acceptance and the seven dispositions of adults ranged from .06 through .38. The mean weighted effect sizes of correlations between remembered paternal acceptance and the seven dispositions ranged from .04 through .38. All effect sizes were significant (p < .01) except for the mean correlations between adults' remembrances of paternal acceptance in childhood and their current level of dependence. Tables 3 and 4 also show that dependence was more weakly correlated than any of the other personality dispositions with perceived parental (both maternal and paternal acceptance) in childhood and with adults' remembrances of maternal (but not paternal) acceptance in childhood.

Table 3. Summary of Meta-Analysis of the Relationships Between the PARQ and the PAQ Subscales for Children

				Child	PARQ: M	lother ar	ıd Fatheı	r and C	hild PAÇ	subscales	•			
Summary measures	Hos aggre	,	Indepe	endence	Positiv este	e self- eem	Positiv adeq			otional nsiveness	Emoti stabi		Posi world	
illeasures	М	F	М	F	М	F	М	F	М	F	М	F	М	F
Mean unweighted effect size (r)	38***	38***	.22***	.21**	.34***	.37***	.35***	.35***	.39***	.37***	.29***	.28***	.39***	.34***
Mean weighted effect size (r)	38***	41***	.17**	.17**	.38***	.4I***	.37***	.37***	.36***	.28***	.30***	.25***	.37***	.30***
Total heterogeneity (χ^2)	18.46	3.20	21.87	11.08	34.17	1.87	21.60	4.41	17.04	0.97	22.17	5.35	9.70	1.17
Probability level (p)	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Fail safe $N(N_{t_0})$	3,419	306	1013	104	3,020	331	3,627	312	3,904	376	2,544	227	3,558	223
Number of effect sizes	41	11	25	8	41	12	41	12	41	12	38	12	39	12
Sum of sample sizes	8,573	4,054	4,668	3,187	8,573	4,199	8,573	4,199	8,573	4,199	8,417	4,199	8,468	4,199

PARQ = Parental Acceptance—Rejection Questionnaire; PAQ = Personality Assessment Questionnaire; M = mother; F = father. All correlation coefficients are keyed in the direction of the correlates of perceived parental acceptance. **p < .01. ***p < .01.

Table 4. Summary of Meta-Analysis of the Relationships Between the PARQ and the Individual PAQ Subscales for Adults

				Adult P	ARQ: M	other a	nd Fath	er and A	dult PAC	Q subscal	es			
	Host aggres	. *	Indepe	ndence	Positive este		Positiv adeq		Emor	cional siveness	Emot stab		Posi world	
Summary measures	М	F	М	F	М	F	М	F	М	F	М	F	М	F
Mean unweighted effect size (r)	27***	2 7 **	.13**	.06	.32***	.37***	.31***	.38***	.30***	.29**	.26***	.35***	.35***	.38***
Mean weighted effect size (r)	28***	23**	.11**	.04	.36***	.35***	.34***	.35***	.34***	.31***	.29***	.29***	.34***	.38***
Total heterogeneity (χ^2)	10.89	4.86	7.63	_	2.37	.10	2.78	1.23	10.31	5.69	14.31	1.22	5.47	2.91
Probability level (p)	ns	ns	ns	_	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Fail safe N (N _c)	164	53	67	_	356	96	260	73	222	66	146	69	299	80
Number of effect sizes	12	6	12	6	12	6	11	6	12	6	12	6	12	6
Sum of sample sizes	1,370	778	1,370	778	1,370	778	1,295	778	1,370	778	1,370	778	1,370	778

PARQ = Parental Acceptance—Rejection Questionnaire; PAQ = Personality Assessment Questionnaire; M = mother; F = father. All correlation coefficients are keyed in the direction of the correlates of perceived parental acceptance. **p < .01. ***p < .01.

Table 5 shows that the mean weighted effect sizes (*r*) between both maternal and paternal acceptance and hostility/aggression, and independence tended to be significantly stronger among children than among adults. Moreover, the correlation between perceived paternal (but not maternal) acceptance and self-esteem was significantly stronger among children than adults. It is worth noting that even though the

difference in magnitude of correlations between children and adults was not statistically significant, the correlations between maternal acceptance and self-esteem, self-adequacy, emotional responsiveness, emotional stability, and worldview were all stronger for children than for adults. In addition, the correlations between paternal acceptance and self-adequacy and emotional stability were also stronger for children than

	Host aggre		Indep	endence	Posi self-es			itive lequacy		otional nsiveness	Emoti stabi		Posi world	
	М	F	М	F	М	F	М	F	М	F	М	F	М	F
Child	.38	.41	.17	.17	.38	.41	.37	.37	.36	.28	.30	.25	.37	.30
Adult z scores	.28 3.79***	.23 3.59***	.11 1.96*	.04 4.06***	.36 0.69	.35 2.05*	.34 1.34	.35 0.76	.34 1.01	.3 I 0.77	.29 0.34	.29 1.02	.35 0.69	.38 2.31*

Table 5. Differences Between Child Versus Adult PARQ × PAQ Mean Weighted Effect Sizes (r)

PARQ = Parental Acceptance—Rejection Questionnaire; PAQ = Personality Assessment Questionnaire; M = mother; F = father. All correlation coefficients are keyed in the direction of the correlates of perceived parental acceptance. *p < .05. ***p < .05.

for adults. The only mean weighted effect size that was significantly stronger for adults than for children was the correlation between paternal acceptance and worldview—though the magnitude of the correlations between paternal acceptance and emotional responsiveness and emotional stability was also greater (but not significantly so) for adults than for children.

Finally, fail-safe *N* test results shown in Table 3 indicate that from 104 to 3,904 additional studies—all with nonsignificant results—would be required to nullify the conclusion that significant transnational associations exist between perceived maternal as well as paternal acceptance and the seven personality dispositions of children. Fail-safe *N* test results also revealed that from 53 to 356 additional studies with nonsignificant results would be required to nullify the conclusion that significant associations exist between adults' remembrances of maternal and paternal acceptance in childhood and six of the seven adult personality dispositions (excluding dependence). All fail-safe results except dependence are well above Rosenthal's critical value.

Discussion

This meta-analytic review supports most of PARTheory's postulates about the associations between the experience of parental acceptance-rejection in childhood and seven personality dispositions involving hostility, aggression, passive aggression, and problems with the management of hostility and aggression; dependence or defensive independence depending on the intensity, form, frequency, and duration of perceived acceptance or rejection; self-esteem; selfadequacy; emotional stability; emotional responsiveness; and worldview. Specifically, the meta-analytic review shows that children's perceptions of *maternal* acceptance–rejection are transnationally associated with all seven of the personality dispositions. Similarly, adults' remembrances of maternal acceptance-rejection in childhood are also transnationally associated with all seven dispositions. Moreover, the review shows that children's perceptions of paternal acceptance rejection also tend to be transnationally associated with the seven personality dispositions. Finally, adults' remembrances of paternal acceptance—rejection in childhood are transnationally associated with all dispositions except dependence.

Results of this meta-analysis also partially support PARTheory's expectation that the magnitude of the proximal correlations between perceived parental (both maternal and paternal) acceptance in childhood and children's personality dispositions should generally be greater than the more distal correlations between adults' remembrances of parental acceptance in childhood and their current personality dispositions. With few exceptions, this expectation was confirmed, although not always significantly so. The one unexpected reversal of this trend pertains to the correlation between worldview and adults' remembrance of their fathers' (but not mothers') loverelated behaviors. This correlation is significantly stronger than the correlation between children's worldview and their perceptions of paternal acceptance—though the magnitude of the child correlation is in the same moderate range as the one for adults. We have no explanation at this time for this apparent exception to PARTheory's expectations.

Our inability to explain this unexpected finding constitutes one of the limitations of this study. A second limitation pertains to our inability to explain why adults' recollections of having been accepted or rejected in childhood by their fathers is not significantly associated with adults' self-reported dependency—even though it is transnationally associated (though weakly) with adults' remembrances of maternal acceptancerejection in childhood. Part of the reason for this differences may lie in the fact that Pearson's r used in all studies in this meta-analysis assumes linear relationships between perceived acceptance and the level of individuals' self-reported dependence, even though PARTheory postulates a nonlinear association between these variables. This fact should not have biased the results too seriously, however, because the vast majority of respondents included in this study perceived themselves to be accepted by both their mothers and fathers. And as noted earlier, PARTheory predicts a linear relation between dependence-independence and perceived parenting in the accepting range. It is only in the range of perceived rejection where PARTheory postulates nonlinearity.

A second possible explanation for the weak correlations between dependence and perceived parental acceptance is

the fact that the PAQ dependence scale may be an incomplete measure of the theoretical construct "dependence" as conceptualized in the personality subtheory. This possibility is discussed at greater length in R. P. Rohner (1986). It remains a matter for future research to sort out the relative contribution of these methodological and conceptual issues to the relation between self-reported dependence and perceived and remembered parental acceptance.

Another limitation of this study lies in the fact that it is not possible to draw causal conclusions about the direction of relations between perceived parental acceptance-rejection and respondents' personality dispositions because all effects are correlational. Prior research, however, has shown that perceived parental rejection tends to precede the development of such personality characteristics as anger, low self-esteem, and other dispositions central to PARTheory's personality subtheory (Chen, Liu, & Li, 2000; Deković, Reitz, Asscher, & Prinzie, 2008; Miles & Harold, 2003; Mullineaux, Deater-Deckard, Petrill, & Thompson, 2009). Research has also shown that once this constellation of personality dispositions begins to emerge in children, parents tend to withdraw some of the warmth and affection they might have otherwise felt and expressed (Mullineaux et al., 2009; Stice & Barrera, 1995). Thus, the direction of effects in the progression from perceived parental rejection to negative personality and behavioral dispositions to further parental rejection appears to be largely reciprocal or bidirectional.

Yet another limitation of this study is the fact that two self-reports were used to assess the transnational association between perceived parental acceptance and personality dispositions of both children and adults. Even though the PAQ and PARQ have demonstrably strong reliability and validity for use in cross-cultural comparative research, significant correlations between them could be the result of response bias. That is, people who respond positively (or negatively) on the PARQ might also have a tendency to be indiscriminately positive (or negative) about all manner of other things, including about themselves on the PAQ. However, data from a variety of sources other than self-reports suggest that positive correlations between the measures are not the result of response bias. For example, cross-cultural survey (holocultural) evidence from a sample of 101 societies documents the worldwide association between anthropologists' reports of parental acceptance-rejection and their reports of most of the PAQ-related personality dispositions of children and adults (R. P. Rohner, 1975). Results of a larger holocultural study of 186 well-described societies worldwide (R. P. Rohner, 1986) tend to confirm these results.

In addition to holocultural studies such as these, cross-cultural community studies such as R. P. Rohner and Chaki-Sircar's (1988/2011) 18-month community study in India—which used a variety of measurement modalities including interviews, behavior observations, and questionnaires—also provided supportive evidence about the link

between parental acceptance and the seven personality dispositions measured on the PAQ. Cumulative evidence from a multiplicity of specific research methods and different research paradigms suggests that significant response bias in the relation between the PAQ and the PARQ is unlikely. Additional evidence regarding this issue is found in R. P. Rohner et al. (2011).

Despite these limitations, the meta-analysis provides strong overall support for PARTheory's postulates about the pancultural associations between both maternal and paternal acceptance and at least six of the seven personality dispositions most central to the theory. Results of heterogeneity tests show that differences in language, culture, race, ethnicity, gender of parent, geographical boundary, and other such factors do not exert enough influence to override these apparently universal tendencies.

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