

Impact of Family Efficacy Beliefs on Quality of Family Functioning and Satisfaction with Family Life

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The present study tested with 142 families a structural model of the interplay of perceived dyadic and collective forms of efficacy within the interdependent family system, and how these different forms of efficacy are structurally related to quality of family functioning and satisfaction with family life. Dyadic parent–child efficacy, dyadic spousal efficacy, and filial efficacy were linked to family satisfaction through the mediating impact of collective family efficacy. A high sense of collective family efficacy was accompanied by open family communication and candid disclosure by adolescents of their activities outside the home. Collective family efficacy contributed to parents’ and adolescents’ satisfaction with their family life both directly and through its impact on quality of family functioning. An alternative structural model in which quality of family functioning affects the different forms of perceived family efficacy and family satisfaction provided a poorer fit to the data.

INTRODUCTION

Conceptions of socialisation processes within the family system have undergone substantial changes over the years. The early conception adopted a

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unidirectional model in which parents allegedly shaped their children and the quality of family life predominantly through their child-rearing practices (Goslin, 1969). Later conceptions reversed the direction of causation to one in which children influence parental practices (Bell & Harper, 1977). Eventually, the conception of socialisation adopted bidirectional models of influence (Maccoby, 2003). In this evolving theorising, socialisation processes are now being conceptualised within an agentic framework (Kuczynski, 2003). However, it serves mainly as a meta-conception without providing a distinctive theory of human agency and the mechanisms through which it is exercised. The present study specifies the different forms that human agency takes within a family system, examines perceived efficacy as a central mechanism through which it is exercised, and analyzes how it operates in concert with family functioning and satisfaction with one's family life. The family system was selected for study because it affects virtually every aspect of personal development and well-being during the formative period of life.

Social cognitive theory views human self-development, adaptation, and change from an agentic perspective (Bandura, 2006a, 2008). To be an agent is to influence the quality of one's functioning and events that affect one's life. Within this conceptual framework, people's beliefs in their efficacy is the foundation of human agency. Whatever other factors may serve as guides and motivators, they are rooted in the core belief that one can produce effects by one's actions. Otherwise, there is little incentive to undertake activities or to persevere in the face of difficulties. In this view, people are significant contributors to their life circumstances not just products of them.

Diverse lines of research have examined key aspects of the self-efficacy theory underpinning agentic functioning. These include the origins of efficacy beliefs, their structure and functional properties, the cognitive, motivational, affective, and decisional processes through which efficacy beliefs produce these effects, and their modes of application for personal and social change (Bandura, 1995, 1997; Pajares & Urdan, 2006).

Theorising and research on human agency has centered almost exclusively on personal agency exercised individually. However, family members do not live their lives autonomously. Many of the things they seek are achievable only by working together through interdependent effort. Social cognitive theory extends the conception of human agency to collective agency rooted in people's belief in their collective efficacy (Bandura, 2000). In the exercise of collective efficacy, people pool their knowledge, skills and resources, provide mutual support, form alliances, and work together to secure what they cannot accomplish on their own. The findings of meta-analyses show that perceived collective efficacy accounts for a good share of variance in the quality of group functioning. The more extensive the interdependence within a social system, the higher the predictability of the perceived efficacy of the collectivity (Stajkovic, Lee, & Nyberg, 2009).

Social cognitive theory assigns a prominent role to the perceived efficacy of families to manage the different aspects of familial relationships and the quality of family life (Bandura, 1997, 2006b). The family operates as a multilevel social system with interdependent relationships rather than simply as a collection of members operating independently. Both the parent-child dyad and the spousal dyad are embedded in the network of interdependencies that constitute a family as it functions collectively (Cigoli & Scabini, 2006). The present study tested a conceptual model of the interplay of perceived dyadic and collective efficacy within the family system, and how these different forms of perceived efficacy are functionally related to quality of family functioning and satisfaction with family life. For reasons to be explained later, the analysis centered on family transactions involving adolescents.

The sections that follow provide the theoretical and empirical support for the conceptual model being tested. Consider first the parent-child dyad. To date, much of the self-efficacy research on family functioning has focused on the early phases of dyadic parent-child relationships. Perceived parenting efficacy plays a key role in managing the multiple demands of parenthood (Bandura, 1997). Mothers with a strong belief in their caretaking efficacy, as measured before the birth of their first child, experience more positive well-being, closer attachment to their baby, better adjustment to the parenting role during the postpartum phase, less conflict over the parenting role, and achieve a better marital relationship during the toddler period than mothers who hold weaker beliefs about their parenting capabilities (Williams, Joy, Travis, Gotowiec, Blum-Steele, Aiken, Painter, & Davidson, 1987). Perceived parenting efficacy predicts child and marital relationships after controlling for prior quality of those relationships and mothers' well-being.

The impact of parenting efficacy beliefs on child development has also been examined with interventions designed to enhance a sense of parental efficacy of mothers living under disadvantaged conditions and those with difficult children. Compared to mothers who did not have the benefit of the efficacy-enhancing program, mothers whose sense of parenting efficacy was raised interacted more positively with their children, decreased coercive discipline, experienced lower familial stress, achieved improvements in their children's classroom behavior, and reductions in behavior problems (Gross, Fogg, & Tucker, 1995; Gross, Fogg, Webster-Stratton, Garvey, Julion, & Grady, 2003; Sofronoff & Farbotko, 2002).

Belief in one's parenting efficacy also serves as an enabling and protective factor that reduces parental vulnerability to stress and depression, which can weaken maternal attachment and impede the quality of child care (Cutrona & Troutman, 1986; Elder, 1995; Gross, Conrad, Fogg, & Wothke, 1994; Teti & Gelfand, 1991). The enabling relation remains after controlling for a host

of potential determinants including education, ethnicity, maternal employment, economic hardship, and pre-existing maternal depression and social and marital support.

A strong sense of parental efficacy yields dividends not only in emotional well-being and quality of caretaking but also in shaping children's developmental trajectories. Parents who believe they can influence the course of their children's development act on that belief in ways that cultivate their potential (Ardelt & Eccles, 2001). They build their children's sense of intellectual efficacy and aspirations, which, in turn, contribute to their social relations, emotional well-being, academic development, and career choice and development (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996, 2001). Moreover, parents of high efficacy are strong advocates for their children in interactions with social institutions that affect their children's development during the formative period of their lives (Bandura, 1997).

Transactions within the parent-child dyad involve a bidirectionality of influence. In this reciprocal interplay, children's beliefs in their efficacy to manage their peer and family relations affect how they navigate their family life (Caprara, Pastorelli, Regalia, Scabini, & Bandura, 2005; Caprara, Regalia, & Bandura, 2002).

The efficacy to manage the spousal relationship is another dyad in the interdependent family system. Spousal efficacy centers on the partners' perceived capability to communicate openly and confide in each other, provide mutual support, to resolve marital relationship problems, and work through disagreements over child rearing and management of their finances. Partners who approach challenges in their relationship beset with self-doubts tend to favor avoidant rather than problem-solving strategies. Lack of enabling and fulfilling reciprocity, and unresolved marital discords, can detract from the quality of family functioning and satisfaction with family life. There is some longitudinal evidence from families with dual careers that wives' perceived self-efficacy to enlist spousal aid in childcare improves their health and emotional life (Ozer, 1995). However, the dyadic spousal aspect of family efficacy has received relatively little attention.

The family is a highly interdependent system. Perceived collective family efficacy is defined as members' beliefs in the capabilities of their family to work together to promote each other's development and well-being, maintain beneficial ties to extrafamilial systems, and to exhibit resilience to adversity. Although the family is a principal social system, and perceived collective efficacy has been shown to play an influential role in the quality of group functioning (Stajkovic et al., 2009), families' beliefs in their collective efficacy has received surprisingly little conceptual and systematic empirical analysis.

Familial relationships grounded in mutual acceptance and open communication aid adolescents to weather stressors and to negotiate their growing independence and individuation in the transitional passage to adulthood

(Scabini, Marta, & Lanz, 2006). In an atmosphere of open communication, adolescents are likely to confide in their parents about their concerns, activities, and the dilemmas they face in their social life in nonfamilial contexts. Such information enables parents to provide guidance and support and to identify potential problem situations that may warrant enabling mentoring and monitoring. Open parental communication and supportive guidance thus provide social safeguards against heavy engagement in activities that can have detrimental effects (Dishion & McMahon, 1998; Robins & Rutter, 1990).

As adolescents move increasingly into the larger social world outside the home, family management practices change in form and locus of influence. Parents cannot be present to guide their behavior. To provide further guidance and support to adolescents, parents need to know what activities they are engaging in and their choice of associates outside the home. Parents have to depend largely on the adolescents themselves to tell them what they are doing when they are on their own. Without their adolescents' frank disclosure of their whereabouts, with whom they are associating, and the activities they are engaging in, parents lack the knowledge for enabling and corrective guidance (Soenens, Vansteenkiste, Luyckx, & Goossens, 2006; Stattin & Kerr, 2000). Families of high perceived parenting, spousal, and collective efficacy were expected to be more successful in communicating with their adolescents and creating an atmosphere conducive to candid disclosure of their activities outside the home.

Family satisfaction was chosen as a key outcome because it is important not only in its own right, but also through its impact on other aspects of life that can alter developmental trajectories (Barnes & Olson, 1985; Noller, 1994). Thus, childhood satisfaction with family life promotes prosocialness and a sense of self-worth, whereas family dissatisfaction is accompanied by social and emotional problems (Gilman, 2001; Valois, Zullig, Huebner, & Drane, 2001).

The study centered on family transactions involving adolescents because this is a taxing and significant transitional period. Adolescents have to manage concurrently significant biological changes and major educational and social role transitions that impact importantly on the family as a whole. Open communication and self-disclosure were selected because, as previously noted, they are especially relevant to the family management of adolescent transitional changes.

We tested the following conceptual model. In the first segment of the model, dyadic parent-child and spousal efficacy contribute to the collective efficacy of the family to work together in managing their family life. In the second segment, collective family efficacy fosters open communication and self-disclosure. The dyadic forms of efficacy also do so both directly and mediationally through collective family efficacy.

The third segment of the conceptual model specifies the relation of quality of family functioning to satisfaction with one's family life. The more openly parents communicate with their children, remain informed about their activities outside the home, and diffuse potentially troublesome disagreements, the more satisfying they are likely to find their family life. It was hypothesised that efficacy beliefs would affect family satisfaction directly as well as through their impact on the quality of family functioning. Family members who are assured in their personal and collective efficacy to manage their affairs will be more satisfied with their family life than those beset with doubts about their capabilities to handle the challenges that families must face.

In family functioning, adolescents have a hand in shaping the collaborative family processes and contributing to the family's sense of collective efficacy. Perceived efficacy is a self-referent construct in which individuals are necessarily the sole source of what they believe. There is commonality in the construct of perceived parental and spousal efficacy because both parents are judging their own perceived capability, i.e. efficacy to manage their relationship with each other and with their adolescent offspring. Adolescents' judgment of their efficacy to manage their relationships with their parents also measures their self-belief. However, if parents judged their adolescents' self-efficacy, and adolescents judged their parents' efficacy, these would be measures of social perception not self-belief of efficacy. Social perception and self-belief represent different constructs from different sources. Because others' social perceptions are not substitutable for individuals' own beliefs about their capability, the parental and adolescent data cannot be combined into a single hybrid correlation matrix. Therefore, the empirical tests had to be conducted separately for parents and adolescents.

The posited conceptual model for the adolescents was similar in structure to those tested with the parents. It was predicted that adolescents who are assured in their efficacy to manage their relationships with their parents are more likely than those of low filial efficacy to confide in their parents, foster an atmosphere of open communication, and build a sense of collective efficacy that their family can manage their affairs. Collective family efficacy contributes to adolescents' satisfaction with their family life both directly and through its impact on family functioning. Perceived filial efficacy also contributes to their satisfaction with family life both directly and through its influence via collective family efficacy.

In the analysis of both the parental and adolescent data, we tested a plausible alternative model that reverses the direction of causation between efficacy beliefs and quality of family functioning. In this model quality of family functioning affects family satisfaction both directly and mediationaly through its influence on family efficacy beliefs.

METHOD

Participants

The participants were drawn from Milan and its surroundings. They were recruited from six secondary schools, randomly selected to represent the different socioeconomic levels in this metropolitan area. Two private schools and four public schools were chosen at random from these two categories. One class was randomly selected from each school. One hundred and ninety-two families were sent letters requesting their participation in the project, which was described as a study of family relations. The acceptance rate was 87 per cent for mothers, 74 per cent for fathers, and 99 per cent for adolescents.

The study was based on 142 intact families that included data from mothers, fathers, and their adolescent offspring out of the 192 that were contacted. The mean ages were 45 and 46 years for mothers and fathers, respectively. Of the 142 adolescent members of the families, 64 were females and 78 were males. They ranged in age from 13 to 19 years, with a mean age of 16 years. Regarding the family structure, 71 per cent had two children, 25 per cent had one child and 4 per cent had three children. The adolescent member was included in the study.

There were two reasons for focusing the study on intact families. Because tests of the conceptual model required data on dyadic spousal, parental, filial, and collective efficacy and their direct and mediated link to family satisfaction, the families by necessity had to be intact. The model cannot be evaluated if marital partners are divorced and have gone their separate ways. The multilevel structure of the data in a family system also required data from all family members. Italian society is characterised by a high level of family intactness at 76 per cent. In the present sample 97 per cent were in their first marriage. Of the five restructured intact families, two had remarried after the death of their spouse and 3 were separated and living with a new partner but were not officially married. Because families were drawn from both public and private schools and spanned the full socioeconomic range, they typify the families in the Milan region.

In tests for comparability, the sample of intact families was compared on socio-demographic characteristics with families that were not included in the study because data were not available for one or more of the family members. These two sets of families did not differ either in socioeconomic status, age of the parents, or gender distribution of the adolescents. Nor did the adolescents differ either in perceived efficacy, quality of family functioning, or level of family satisfaction. Moreover, the covariance matrix did not differ by gender. The findings of these diverse comparison tests lend support to the comparability of the family sample on relevant socio-demographic factors.

Adolescents were administered the measures of theoretical interest by female researchers during scheduled sessions in the schools in groups of about 30 participants. Parents completed the various measures in their homes. The mothers and fathers received separate sealed envelopes and were instructed to complete the scales independently. They mailed them in separate sealed envelopes.

MEASURES

For all items constituting the dyadic and collective family efficacy scales, the participants rated their perceived efficacy to manage the different aspects of their relationships on a 7-point scale ranging from perceived incapability to do so (1), to high perceived capability (7). The psychometric properties of the set of family efficacy scales were verified in a study centered on the methodological development of the scales (Caprara, Regalia, Scabini, Barbaranelli, & Bandura, 2004).

Perceived Parental Self-Efficacy

Perceived parental self-efficacy was measured by 12 items. It assessed parents' beliefs in their efficacy to support their children's efforts to gain self-reliance; provide guidance on how to manage new challenges; attend to their children when they are worried about personal matters; discuss their relationship toward each other; and handle firmly violations of rules and commitments. The item, "How well can you help your son/daughter manage problems he/she has with others?", illustrates the enabling aspect of parenting efficacy. Research verifying the importance of parental support and guidance in adolescents' efforts at individuation provided the guidelines for constructing the items (Scabini, 1995). The Cronbach's alpha reliability coefficient was .87 for parents combined (.85 for mothers, .90 for fathers).

Perceived Spousal Self-Efficacy

Spouses' perceived marital efficacy, measured with 12 items, focused on prototypic situations couples must manage effectively to achieve a satisfactory marital relationship. The items assessed spouses' beliefs in their capabilities to provide each other with emotional support, confide in each other, deal with marital problems without blaming each other, resolve differences between themselves on how to handle their children's development and growing independence, and set aside time to talk about matters of concern. The item, "How well can you get your spouse involved in important decisions about how to run the family?", measured the level of spousal mutuality in

decision making. The alpha reliability coefficient for this scale was .91 for parents combined (.91 for mothers, .92 for fathers).

Perceived Filial Self-Efficacy

Adolescents' perceived filial self-efficacy was measured by 16 items assessing belief in their capabilities to discuss with their parents personal problems even under difficult circumstances; cultivate positive affective ties and manage negative emotional reactions toward them; get parents to see their side on contentious issues; manage stress arising from parents' marital conflicts; and to influence constructively parental attitudes and social practices. "I can get my parents to understand my point of view when it differs from theirs" is an item measuring a sense of efficacy to manage potentially contentious issues. The construction of the scale was guided by knowledge concerning prototypic situations adolescents have to manage with their parents (Scabini, 1995; Smetana, 1996). It had a reliability coefficient of .87.

Perceived Collective Family Efficacy

The assessment of the efficacy of a collectivity distinguishes between the *source* of judgments (i.e. individuals) and the *level of the phenomenon* being assessed (i.e. personal efficacy or group efficacy). There is no group mind that is judging its capability (Bandura, 1997). Perceived collective efficacy resides in the minds of members as the belief they have in common regarding the group's capability. In a collectivity, it is members acting on their common beliefs that contributes to group functioning.

Participants' perceived collective family efficacy was measured by 20 items. They measured beliefs in the family's efficacy to work together as a family system to accomplish tasks necessary for effective family functioning. Unlike the dyadic efficacy scales, family collective efficacy focuses on the perceived operative capabilities of the family as a whole. The holistic efficacy appraisal captures the coordinative and interactive dynamics of the family system operating collectively (Bandura, 2000).

The scale focused on the perceived capability of the family working together to manage daily routines, achieve consensus in decision-making and planning, promote reciprocal commitments, agree to decisions that require some sacrifice of personal interests, provide emotional support for each other in difficult times and in stressful situations, create family leisure time activities despite the pressure of other matters, bounce back quickly from adverse experiences, and maintain good relations with the school systems and community at large. "How well can the family work together to share household responsibilities?" typifies assessment of the family operating as a collectivity. Each of the members rated their belief in the collective efficacy of their

family. The reliability coefficient was .95 for parents combined (.95 for mothers, .95 for fathers) and .95 for their adolescent offspring.

Communication with Parents

Parent-adolescent communication was measured by a scale developed by Barnes and Olson (1982) comprising 20 items rated on a 5-point Likert scale. It assessed adolescents' open and problem-focused communication with both parents. The adolescents rated the extent to which they felt free to discuss problems with their parents and that their parents respond in an understanding, supportive way. "I find it easy to discuss problems with my father/mother" is a sample item measuring openness of communication.

The second subscale focused on problems in communicating with their parents. This included withholding information from them ("There are topics I avoid discussing with my father/mother"); wariness in what they disclose ("I am careful about what I say to my mother/father"); and intentional noncommunicativeness ("When we are having a problem, I often give my father/mother the silent treatment"). Adolescents rated the quality of their communication with their mothers and fathers separately. The alpha reliability coefficients were .80 for parents' open communication with their adolescent offspring, and .88 for adolescents' open communication with their parents.

Self-Disclosure

The extent to which adolescents informed their parents about their activities and relationships outside the home was assessed by a four-item scale developed by Capaldi and Patterson (1989). Separate versions were used, one for parents and the other for adolescents. Parents rated on a 5-point scale how often their children informed them about their activities outside the home and the extent to which they kept track of their activities in those situations, e.g. "Does your son/daughter tell you where he/she goes?"; "Do you ask your son/daughter what he/she has done during the day?" The adolescents rated their self-disclosure on similar scales, e.g. "Do you inform your parents about activities you are doing or intend to do?"; "Can your parents track you down if they need you?" The alpha reliability coefficients for the scale are .85 for the parents combined (.79 for mothers, .88 for fathers) and .73 for the adolescents.

Family Satisfaction

The adolescents' and parents' satisfaction with their family life was measured by a 14-item scale developed by Olson and Wilson (1982). Item 2 of

the scale was excluded from the analyses because it was concerned with satisfaction with communication among family members and thus overlapped with Open Communication. For each item, participants rated on a 5-point scale how satisfied they were with different aspects of family life, including the amount of time they spent together, the way the family makes decisions and handles family problems, carries out mutual responsibilities, and the sense of fairness in family relations. The items: "How satisfied are you with how close you feel to the rest of the family?"; "How satisfied are you with the number of fun things you do with your family?" measured satisfaction with emotional closeness and enjoyable activities in their family life. Following Olson and Wilson's recommendation, the total score was used as an index of satisfaction with family functioning. The alpha coefficients for the scale are .90 for parents combined (.89 for mothers, .91 for fathers) and .86 for adolescents.

Confirmatory Factor Analysis: Parental Variables

In the parental data, the mothers and fathers are nested within couples, thus forming a multilevel or hierarchical structure. Those belonging to the same couple are likely to be more similar on the different variables because of their interdependence and shared environment than are mothers and fathers belonging to different couples. Indeed, the interclass correlation coefficients are .34 for collective family efficacy, .28 for parental efficacy, .50 for spousal efficacy, .37 for open communication, .36 for parental view of self-disclosure, and .55 for family satisfaction, indicating a high grouping effect. The analyses performed on the parental data set, therefore, took into consideration the hierarchical structure of these data.

To analyze the hierarchical data structure we used the Mplus "TYPE=COMPLEX" procedure of Mplus (Muthén & Muthén, 1998). This Mplus command produces correct parameters estimates, standard errors, and test statistics in the presence of interdependency. This analytic approach is particularly well suited for the purpose of the present study which examines the structural relations among the variables within the parental couple.

A confirmatory factor analysis was initially conducted to test the distinctiveness of the six scales administered to parents, i.e. three efficacy scales, two family functioning measures, and the measure of family satisfaction. All items from the six scales were simultaneously analyzed within a single confirmatory factor analysis with the Mplus program (Muthén & Muthén, 1998). It provides several goodness-of-fit indices along with the chi-square index. The RMSEA index is less influenced by sample size for evaluating model fit than the chi-square indices. The SRMR is an absolute index of the discrepancy between reproduced and observed correlations. Hu and Bentler

(1998, 1999) recommend the use of this index as the most sensitive to model misspecifications. They recommend a cut-off criterion of .08, with higher values indicating poorer fit to the empirical data and values lower than .06 indicating an excellent fit. While the RMSEA is a function of the chi-square and the degrees of freedom of the model, the SRMR is a function only of residual correlations; thus the two fit indices tap different aspects of fit and are not redundant.

Although the chi-square of the six-factor model was significant, $\chi^2(2399, N = 284) = 4799, p < .001$, its dependence on sample size makes it a less sensitive test with large samples, which often produce a significant value when, in fact, there is a good fit. The model's fit was supported by an RMSEA of .059, and an SRMR of .066. All factor loadings were significant, ranging from .36 to .83, with a mean of .64. The correlations among the factors ranged from .24 to .72, with a mean of .48.

To further examine the distinctiveness of the factors emerging from the confirmatory factor analysis, test of an alternative single-factor model yielded a significant chi-square, $\chi^2(2414, N = 284) = 5460, p < .001$, an RMSEA of .067, and an SRMR of .219, indicating a poor fit. The chi-square difference between single-factor and six-factor models was highly significant, $\chi^2_{\text{diff}}(15) = 661, p < .001$. These findings verify that the factors are distinct albeit correlated to some extent.

We also tested two other conceptual models. In the two-factor model, self-efficacy and family functioning comprised one factor and family satisfaction the other. The fit indices are $\chi^2(2413, N = 284) = 6700, p < .001$, RMSEA = 0.079, and SRMR = 0.090. In the three-factor model, self-efficacy, family functioning, and family satisfaction represented the three factors. The fit indices are $\chi^2(2411, N = 284) = 6129, p < .001$, RMSEA = 0.079, and SRMR = 0.081. Both of these alternative models provide a poorer fit to the data. These multiple tests verify the discriminative validity of the different types of perceived efficacy. Although distinctive, they bear some relation to each other because of the interdependent nature of family life. The findings also lend support to the discriminative validity of the different aspects of family functioning and family satisfaction.

Confirmatory Factor Analysis: Adolescent Variables

As in the case of the parental data, a confirmatory factor analysis was performed to test for the uniqueness of the five scales administered to adolescents. These included the two self-efficacy scales, the dual facets of open communication, candid self-disclosure, and family satisfaction. All items from the five scales were simultaneously analyzed within a single confirmatory factor analysis. In this model all cross-loadings were fixed to zero, and factors were allowed to be correlated. Because the data for

adolescents did not form a clustered or hierarchical structure, the Mplus "TYPE=COMPLEX" procedure was not applied. Regular Maximum Likelihood parameter estimates were used.

The chi-square for this model was significant, $\chi^2(2469, N = 142) = 5116$, $p < .001$, but an RMSEA of .08 and an SRMR of .08 provide support for the model fit. The factor loadings ranged from .31 to .82, with a mean of .62. The correlations among the factors ranged from .39 to .75, with a mean of .61. To further explore the distinctiveness of the factors, an alternative factor model with all factor covariances fixed at 1 was tested. This model yielded a poor fit to the empirical data on all of the indices—a significant chi-square, $\chi^2(2484, N = 142) = 5916$, $p < .001$, a high RMSEA = .102, and a high SRMR = .096. The difference between the five-factor model and the single-factor model was highly significant, $\chi^2_{\text{diff}}(15) = 800$, $p < .001$. This comparative test confirmed that the various measures represented distinct, albeit correlated factors.

As in the case of the parent data, we tested the two-factor and three-factor models as well. The fit indices for the two-factor model are $\chi^2(2483, N = 142) = 5874$, $p < .001$, the RMSEA = 0.101, and SRMR = 0.095. The corresponding indices for the three-factor model are $\chi^2(2481, N = 142) = 5535$, $p < .001$, RMSEA = 0.096, and SRMR = 0.092. Both of these models provide a poorer fit to the data.

RESULTS

Analysis of Parental Data

Table 1 presents the parental means, standard deviations, and the matrix of correlations among the set of efficacy beliefs, quality of family functioning, and satisfaction with family life. The set of correlations above the diagonal is for sons and those below the diagonal is for daughters. One-way ANOVAs revealed no significant parental gender differences in either perceived spousal efficacy, collective family efficacy, or level of family satisfaction. However, compared to fathers, mothers had a higher sense of parenting efficacy, $F(1, 141) = 13.54$, $p < .0001$, $\eta^2 = 0.07$, were more open in their communication, $F(1, 141) = 13.54$, $p < .001$, $\eta^2 = 0.07$, and more involved in their adolescents' self-disclosure of activities outside the home, $F(1, 141) = 11.46$, $p < .001$, $\eta^2 = 0.06$.

ANOVAs for repeated measures revealed significant differences in parents' beliefs in their efficacy to manage different aspects of the family system. The same pattern of differences was obtained for mothers, $F(2, 282) = 22.46$, $p < .001$, $\eta^2 = 0.14$, fathers, $F(2, 282) = 34.56$, $p < .001$, $\eta^2 = 0.18$, and the couple, $F(2, 566) = 50.44$, $p < .001$, $\eta^2 = 0.16$. In pairwise comparisons, the couple had a higher sense of efficacy to manage their spousal relationship than to

TABLE 1
 Parental Means, Standard Deviations, and Correlation Matrices for Dyadic and
 Collective Family Efficacy Beliefs, Quality of Family Functioning, and
 Family Satisfaction

Variables	Sons		Daughters		1	2	3	4	5	6
	M	SD	M	SD						
1. Collective Efficacy	4.55	.86	4.54	.86	—	.58***	.61***	.32**	.22	.68***
2. Spousal Efficacy	5.01	.93	4.87	.96	.62***	—	.54***	.28*	.19	.52***
3. Parental Efficacy	4.63	.75	4.33	.88	.49***	.58***	—	.47***	.30*	.53***
4. Self-Disclosure	3.99	.74	4.31	.59	.30**	.25*	.41***	—	.57***	.43***
5. Communication	3.67	.68	3.44	.65	.36**	.34**	.39***	.39***	—	.33**
6. Family Satisfaction	3.53	.56	3.47	.60	.67***	.53***	.42***	.34***	.42***	—

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

The set of correlates above the diagonal is the correlation matrix for sons, and the set below the diagonal is the correlation matrix for daughters.

manage their relationship with their adolescent offspring, $F(1, 283) = 77.77$, $p < .001$, $\eta^2 = 0.22$, or to promote a sense of collective family efficacy, $F(1, 283) = 65.75$, $p < .001$, $\eta^2 = 0.19$. Pairwise comparisons separately for mothers and fathers yielded the same pattern of significant differences for the different forms of perceived efficacy. The spouses' satisfaction with their family life was positively related, $r(140) = .55$, $p < .001$, as was the relation between the adolescents' and parental level of satisfaction, $r(140) = .25$, $p < .01$. The sense of collective family efficacy was also positively related among the family members but at a somewhat lower level. The correlation was $r(140) = .34$, $p < .001$ between spouses, and $r = .18$, $p < .05$ between the adolescents and their parents.

Further analyses were performed to examine gender differences. Six different mixed ANOVAs were performed with adolescents' gender serving as a between-persons variable and parents (mothers versus fathers within couples) serving as the within-persons variable. In all these analyses the interactions between these two variables were non-significant. Main effects for parents were significant for open communication, $F(1, 140) = 12.16$, $p < .001$, $\eta^2 = .08$, self-disclosure, $F(1, 140) = 11.92$, $p < .001$, $\eta^2 = .08$, and parental efficacy, $F(1, 140) = 10.58$, $p < .001$, $\eta^2 = .07$. On all these variables, regardless of the gender of offspring, mothers scored higher than fathers. Main effects for adolescents' gender were significant for self-disclosure, $F(1, 140) = 12.56$, $p < .001$, $\eta^2 = .08$, and for collective efficacy, $F(1, 140) = 4.24$, $p < .05$, $\eta^2 = .03$. Regardless of the gender of parents, parents of boys reported a lower level of self-disclosure than parents of girls, but a higher level of collective efficacy.

Multi-Group Structural Analysis

The impact of the different forms of family efficacy on the quality of family functioning and family satisfaction may vary as a function of the gender of the adolescent. This is because adolescent males and females differ in their peer networks and the types of activities they pursue. These variations present different challenges for family management and communication. We therefore examined the same pattern of relations among the variables using the multi-group structural equation approach with adolescents' gender serving as the grouping variable. The multigroup-SEM analysis was performed on the original raw data without any standardisation within or across groups. As in the confirmatory factor analysis, we used the Mplus program option "TYPE=COMPLEX" to deal with the interdependency of mothers and fathers belonging to the same family. This parameters estimation method allowed us to treat mothers' and fathers' scores as if they were the scores of a "couple" without any need to sum or aggregate their scores. Finally, on the couple data a multiple-group approach was used, then separating parental couples with a male offspring from parental couples with a female offspring.

The analysis yielded substantial support for the conceptual model, with a non-significant chi-square, $\chi^2(21, N = 284) = 20.25, p = .51$, and a low RMSEA of .00, but a high SRMR of .17. After all untenable across-group constraints were removed the refined model, that includes the path coefficients that are significant beyond the .05 level, yielded a non-significant chi-square, $\chi^2(18, N = 284) = 11.82, p = .86$, a low RMSEA of .00, and a low SRMR of .07, indicating a good fit to the empirical data. Figure 1 includes the path coefficients that are significant beyond the .05 level.

Both parental and spousal efficacy were significant contributors to the level of collective family efficacy. Belief in the family's collective efficacy was the key contributor to satisfaction with family life. It accounted directly for a major share of the variance in family satisfaction and also totally mediates the relation of parental efficacy to satisfaction with family life. Parental efficacy contributed to both open communication and self-disclosure, which also partially mediates its relation to family satisfaction. Spousal efficacy contributed to family satisfaction directly as well as through the mediation of collective family efficacy.

Except for the impact of open communication on family satisfaction that was significant only for girls, all of the structural relations were replicated across gender, although a few of the paths differed in magnitude. Spousal efficacy was more strongly related to parents' efficacy to manage their daughters than their sons. Parental efficacy was a heavier contributor to collective family efficacy for sons. The relation of open communication with parental involvement in self-disclosure is stronger for sons than for daughters. The

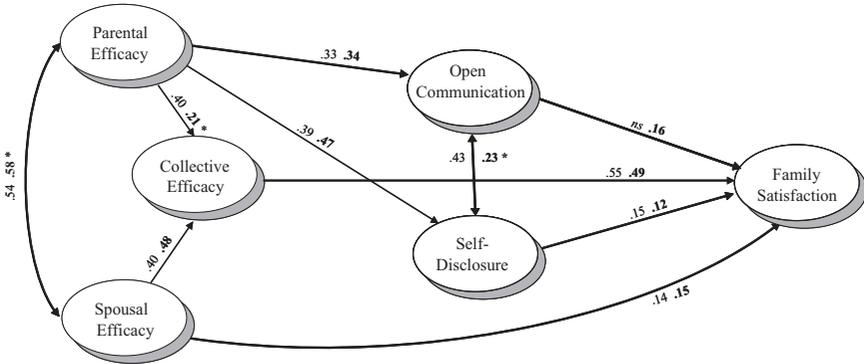


FIGURE 1. Standardised path coefficients for the contribution of parental family efficacy beliefs and quality of family functioning to level of family satisfaction. The first path coefficients on each of the structural links are for sons; the second path coefficients in **bold** type are for daughters. Only the path coefficients that are significant beyond the $p < .05$ level are included. When a relation is significant only at one gender the significant path coefficient is in Roman type for the males and **bold** type for the females. The coefficients with an asterisk on the paths differ significantly across gender.

model accounts for 58 per cent of the variance in family satisfaction for sons and 48 per cent for daughters.

Alternative Model

We tested a plausible alternative conceptual model positing a reversal in the causal ordering of the determinants. In this conceptual model, quality of family functioning affects family satisfaction both directly and indirectly through its impact on the dyadic and collective forms of perceived efficacy. The alternative model was tested with the same multiple-group analysis. This refined model yielded a non-significant chi-square, $\chi^2(17, N = 284) = 10.66$, $p = .87$, and a low RMSEA of .00. However, for the SRMR index, which provides the more sensible test for model misspecification (Hu & Bentler, 1998), the value of .09 exceeded the cut-off level, indicating a poor fit to the data.

Analysis of Adolescents' Data

Table 2 presents the means and standard deviations for the efficacy beliefs, quality of family functioning, and satisfaction with family life from the adolescents' perspective. The table also includes the matrix of relations among the various factors. The set of correlations above the diagonal is for sons and those below the diagonal is for daughters.

TABLE 2
 Adolescents' Means, Standard Deviations, and Correlation Matrices for Filial and Collective Family Efficacy Beliefs, Quality of Family Functioning, and Satisfaction with Family Life

Variables	Sons		Daughters		1	2	3	4	5	6
	M	SD	M	SD						
1. Filial Efficacy	3.61	.90	3.55	.76	—	.54***	.53***	.58***	.27*	.32**
2. Collective Efficacy	4.45	.92	4.21	.94	.64***	—	.46***	.47***	.40**	.52***
3. Communication with Mother	3.37	.76	3.47	.85	.49***	.51***	—	.75***	.58***	.54***
4. Communication with Father	3.37	.76	3.47	.85	.46***	.51**	.64***	—	.59***	.57***
5. Self-Disclosure	3.68	.74	4.04	.64	.57***	.34**	.41**	.39**	—	.43***
6. Family Satisfaction	3.42	.62	3.27	.67	.60***	.68***	.49***	.63***	.35**	—

Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

The set of correlates above the diagonal is the correlation matrix for sons, and the set below the diagonal is the correlation matrix for daughters.

One-way ANOVAs revealed no significant gender differences on any of the variables except for self-disclosure. Compared to sons, daughters reported higher self-disclosure, $F(1, 141) = 9.5$, $p < .01$, $\eta^2 = 0.06$. With regard to the different forms of perceived efficacy, the adolescents judged their families' collective efficacy to be higher than their efficacy to manage their parents. The difference between the dyadic and collective family efficacy was obtained for daughters, $F(1, 77) = 61.31$, $p < .001$, $\eta^2 = 0.45$, and sons, $F(1, 63) = 57.93$, $p < .001$, $\eta^2 = 0.48$.

Multi-Group Structural Analysis

As in the case of the parental data, we analyzed the structural models by using the multiple-groups model, which estimated simultaneously the same pattern of relations among variables for the gender samples. The analytic procedure was the same as described for the parental data, except for the parameters estimation. Since adolescents' data did not include a hierarchical structure, they were analyzed using the regular maximum likelihood estimation method. We tested the posited structural model on the covariance matrix with the Mplus program (Muthén & Muthén, 1998). Perceived filial and collective family efficacy and the various indices of quality of family functioning served as the predictors of level of family satisfaction. Open communication was treated as a latent variable with communication with the mother and father representing the facets.

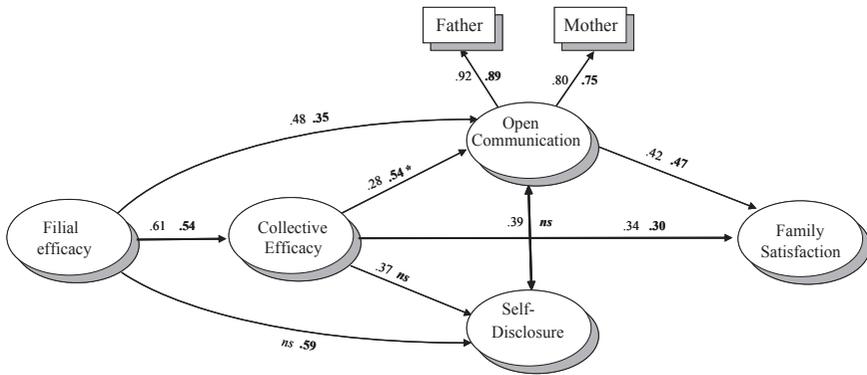


FIGURE 2. Standardised path coefficients for the contribution of adolescents’ family efficacy beliefs and quality of family functioning to level of family satisfaction. The first path coefficients on each of the structural links are for sons; the second path coefficients in **bold** type are for daughters. Only the path coefficients that are significant beyond the $p < .05$ level are included. The coefficients with an asterisk on the paths differ significantly across gender.

The analysis yielded only partial support for the conceptual model, with a significant chi-square, $\chi^2(24, N = 142) = 52.83, p < .05$, an RMSEA of .13, and an SRMR of .11. The refined model, that includes the path coefficients that are significant beyond the .05 level, yielded a non-significant chi-square, $\chi^2(18, N = 142) = 15.47, p = .63$, a low RMSEA of .00, and a low SRMR of .066, indicating a good fit to the empirical data. Figure 2 includes the path coefficients that are significant beyond the .05 level.

Filial self-efficacy contributes to collective family efficacy and is positively related to family satisfaction only indirectly through collective family efficacy and open communication, which are the main contributors to family satisfaction. These structural paths are replicated across gender. In the case of self-disclosure, it is the daughters’ rather than the sons’ self-efficacy to manage parental relationships that fosters self-disclosure of activities outside the home. For sons, collective family efficacy rather than filial self-efficacy contributes to self-disclosure. Open communication and self-disclosure were positively related for the sons but not for daughters. Collective family efficacy contributes to adolescents’ satisfaction with their family life both directly and through its impact on open communication. The model accounted for 45 per cent of the variance in family satisfaction for sons and 51 per cent of the variance for daughters.

As in the analysis of the parental data, a plausible alternative conceptual model was also tested. In this alternative causal structure, quality of family functioning affects adolescents’ satisfaction with their family life both

directly, and indirectly through its impact on perceived filial self-efficacy and collective family efficacy. This refined model yielded a significant chi-square, $\chi^2(19, N = 142) = 34.03, p < .05$, an RMSEA of .11, and an SRMR of .112. Because the alternative model and the posited model are not nested their chi-squares cannot be directly compared. However, the two models can be compared on the alternative fit indices. The posited model met the goodness-of-fit criteria on all the indices, whereas the alternative model yielded a poor fit to the data on all critical criteria, especially the SRMR.

Role of Consensus in Collective Efficacy on Family Functioning and Satisfaction

We also tested whether consensus among family members concerning their collective efficacy is related to the quality of family functioning and satisfaction with family life. Consensus that the family is of high collective efficacy was differentiated from consensus that the family is of low collective efficacy to manage its affairs. Consensus was measured with the Minkowski index (Sneath & Sokal, 1973). In the consensus high collective efficacy group, which contained 18 families, all family members agreed on their family's collective efficacy. In the consensus low collective efficacy group, comprising 20 families, all the members agreed on their family's collective inefficacy. Table 3 presents the mean values, the results of a one-way ANOVA, and effect sizes for each family member's reports of open communication, self-disclosure, and satisfaction with family life.

Compared to families in the low collective efficacy group, the families that agreed on their collective efficacy fared better in family functioning and satisfaction with their family life. All three members were more satisfied with their family life. In addition, fathers reported more open communication and found their adolescents to be more self-disclosing. The adolescents also reported better communication with both their mothers and fathers and higher self-disclosure. The mothers, however, did not differ regarding communication and disclosure. Because mothers play a focal role in the everyday workings of family life, they have to talk to their children and try to keep track of their activities outside the home. These role demands can attenuate differences.

DISCUSSION

A major finding of the present study is the centrality of families' beliefs in their collective efficacy to manage their affairs in the quality of family functioning and satisfaction with their family life. Perceived collective family efficacy was accompanied by high family satisfaction regardless of whether the functional relation was examined for parents or their adolescent

TABLE 3
 Mean Level of Family Functioning and Family Satisfaction for Members in Families of Agreed High Collective Efficacy and those of Agreed Low Collective Efficacy

Family Groups	Fathers' Report			Mothers' Report			Adolescents' Report			
	Open Comm.	Self-Disclosure	Satisfaction	Open Comm.	Self-Disclosure	Satisfaction	Open Comm. (with Father)	Open Comm. (with Mother)	Self-Disclosure	Satisfaction
Agreed High Coll. Eff.										
Mean	3.62	4.49	3.87	3.69	4.26	3.91	3.65	3.86	4.28	3.65
SD	.70	.48	.48	.67	.57	.41	.49	.57	.64	.58
Agreed Low Coll. Eff.										
Mean	3.15	3.68	3.12	3.64	4.20	3.07	2.57	3.27	3.80	2.93
SD	.52	.89	.48	.58	.43	.47	.86	.83	.64	.65
<i>F</i> (1, 36)	5.61	11.84	23.62	0.07	0.16	34.39	22.27	6.38	5.26	13.26
<i>p</i>	<.05	<.01	<.0001	<i>ns</i>	<i>ns</i>	<.0001	<.0001	<.05	<.05	<.0001
η^2	0.13	0.25	0.40	0.00	0.00	0.49	0.38	0.15	0.13	0.27

offspring, male or female gender status, and even in different placement of collective efficacy in the causal order in alternative conceptual models. High consensus that the family is efficacious in managing its affairs was positively related to more open communication, self-disclosure, and satisfaction with family life. This was especially true for quality of family functioning for fathers and adolescents.

The conceptual model in which family efficacy contributes to the quality of family functioning and family satisfaction provided a better fit to the data than the alternative conceptual model in which efficacy beliefs are the product of the quality of family functioning. The functional priority for efficacy beliefs is verified by data from the parents and adolescents alike. Evidence for the centrality of collective family efficacy is in accord with meta-analyses verifying the influential role played by collective efficacy in diverse social systems (Stajkovic et al., 2009).

Contemporary developmental theorising regarding socialisation processes focuses heavily on the bidirectionality of influence within the parent-child dyad (Kuczynski, 2003; Maccoby, 2003). However, this dyad is but one of the multiple interdependent subsystems operating within a family system. There is also the influence of the efficacy of the spousal partners to manage their relationship and its impact on the efficacy of the parent-child relationship. The findings regarding the structural relations among the constituent sources of family efficacy add to our knowledge of how the interplay between the efficacy of these subsystems contributes to the sense of collective family efficacy to work together to manage difficulties and to promote each other's well-being.

As previously noted, collective family efficacy is an emergent belief that encompasses the coordinative and interactive dynamics among its members rather than simply representing the aggregate of the individual efficacies. The finding that parental, spousal, and filial efficacy work primarily through their contribution to collective family efficacy is in accord with evidence that, in interdependent social systems, it is the perceived efficacy of the collectivity rather than the subsystems that is most predictive (Feltz & Lirgg, 1998).

In the case of the adolescents, collective family efficacy was positively related to family satisfaction both directly and through its contribution to open communication, but only for males. Filial efficacy also plays a role in satisfaction with family life but it does so only indirectly by virtue of its impact on collective family efficacy and open communication. The developmental benefits of open communication among family members is well established. The findings of the present study further understanding of this process by adding the agentic function. Adolescents who are assured in their efficacy to manage their relationship with their parents contribute to the atmosphere of open communication and to the sense of collective family efficacy. These

relations have been verified longitudinally (Caprara, Scabini, Barbaranelli, Pastorelli, Regalia, & Bandura, 1998; Caprara et al., 2002).

Self-disclosure was linked to adolescents' family satisfaction with their family life through its covariation with open family communication. This finding underscores the embeddedness of self-disclosure in open communication. Analyses of parental monitoring distinguish between parents' knowledge of their children's activities as made known by them, and parents' active surveillance and tracking of their children's behavior. Parental monitoring is likely to be viewed as enabling and supportive when based on children's disclosure in an atmosphere of open communication, but as intrusively controlling when parents try to keep track of their children's activities by surveillance means. Stattin and Kerr (2000) report that children's spontaneous disclosure of their activities is more predictive of favorable adjustment than parental tracking and surveillance efforts.

The verified structural links in the parental conceptual model were much the same across gender. The few gender differences were of magnitude not of kind. The covariation of parental and spousal efficacy was slightly higher for daughters than for sons. Compared to the daughters, parental efficacy had a stronger impact on collective family efficacy for sons. The covariation between open family communication and self-disclosure was also stronger for the sons. Open family communication covaried with self-disclosure for sons but not for daughters. These gender differences may be due, in large part, to gender differences in the types of pursuits engaged in outside the home. Sons generally exhibit higher involvement in high-risk behavior than do daughters (Earls, Cairns, & Mercy, 1993). To the extent that sons make known what they are doing and talk freely with their parents about it they are likely to receive corrective guidance that makes their family life satisfying. By exercising their efficacy to manage peer pressures they reduce the likelihood of entanglement in transgressive activities (Caprara et al., 1998, 2002). These findings, taken together, are consistent with a larger body of evidence verifying the enabling and protective function of a resilient sense of personal efficacy in adolescent self-development, adaptation, and change (Bandura, 2006b; Pajares & Urdan, 2006).

Research analyzing parental impact on childhood developmental outcomes is, for the most part, confined to mothers. The present study not only included fathers as integral members, but the design permitted analysis of their efficacy to perform diverse roles as spouse, parent, and coactors in the sundry activities of family life across multiple levels of the family system. The research by Forkel and Silbereisen (2003) underscores the enabling and protective function of paternal self-efficacy in managing economic stressors and their impact on family life. Elder and Ardelt (1992) demonstrated in path analysis that economic hardship, by itself, has no direct impact on parenting self-efficacy. Rather, objective financial hardship creates subjective financial

strain that impairs parenting efficacy. Jackson and Scheines (2005) likewise have shown that the influence of employment of single black mothers on their children's cognitive and behavioral functioning several years later was largely mediated through the mother's perceived self-efficacy. Forkel and Silbereisen (2003) found that fathers with a low sense of efficacy to manage events in their lives reacted despondently to economic hardships which, in turn, was accompanied by impaired family climate and depression in their adolescent offspring. By contrast, fathers who had a high sense of efficacy were not depressed by the economic hardship, nor did it impair the family climate or foster depression in their adolescent offspring. The role that fathers play in family life should not be ignored.

No social system is a monolith with a unitary sense of collective efficacy (Bandura, 1997). The modest correlations among members' appraisals of their families' collective efficacy underscores this point. Differences in roles, experiences, aspirations, and what the different members want from their family life can produce variations in how efficacious they judge their family to be.

Some of the potential limitations of this research should be acknowledged. The relations among the factors in the posited structural model were tested concurrently. The obtained functional relations need to be verified prospectively. Although the present study tested the posited structural model on data collected concurrently, some segments of the structural paths in the studies reviewed earlier have been corroborated longitudinally (Caprara et al., 2005) in semi-structured parent-child interactions, and in interventions designed to raise parenting self-efficacy. This body of evidence lends some credence to the verified structural model.

Self-report measures may also present limitations depending on what they assess. There is an important difference, however, between self-reports as proxies for publically observable behavior and self-reports of private matters. Self-beliefs are private cognitive states that are necessarily accessible through report by the individual who holds those beliefs. Where self-referent belief is the subject matter of interest, it is directly accessible to the individual alone, and self-report is necessarily the method of inquiry. The issue of the data source applies as well to members' reports of satisfaction with their family life. Others may judge family satisfaction from some type of behavior but this is a social inference, not how individuals personally feel about their family life. Because of the self-referent nature of most of the determinants being tested, self-reports are measures of necessity, not substitutes for observable behavior.

Human development and functioning are influenced by the construed environment rather than governed mechanistically by the "objective" environment. The impact of parents on their children's development is, therefore, better predicted by how the family environment is perceived and represented

in memory by children than by behavioral indices of the objective environment (Bussey & Bandura, 1999; Phillips & Zimmerman, 1990). It is not that self-reports are suspect and behavior ratings are verifiable. Because different methods of inquiry have their strengths and limitations and are, in large part, complementary, verification of functional relations requires converging evidence from diverse methodologies.

The study of families in a given culture raises the question of generalisability of findings. The internationalisation of communication, and the globalisation and pluralisation of societies, are homogenising many aspects of life and fostering a lot of cultural hybridisation (Holton, 2000). There are some national variations in how families in Italy, Sweden, Germany, and the United States operate collectively to promote their children's development and transition to adulthood (Cook & Furstenberg, 2002). But findings from the latter transnational study reveal that the ways in which families are changing are generally similar across these nations. An extensive worldwide cross-cultural study on family functioning leads to the same conclusion (Georgas, Berry, van de Vijver, Kagitçibasi, & Poortinga, 2006).

Cross-cultural tests of self-efficacy theory speak more directly to the issue of generalisability. The sources of self-efficacy beliefs, their function, and even the processes through which they operate have been found to be similar across diverse societies (Bandura, 2002). Global applications of social cognitive theory designed to raise the status of women in societies in which they are marginalised, denied aspirations and their liberty and dignity produce similar society-wide changes in individualistic and collective societies (Bandura, 2002). There are no adaptive benefits to being plagued by self-doubts about one's capabilities and belief in the futility of effort, regardless of where one resides. The findings, taken as a whole, suggest that national differences in the functional properties of relevant psychosocial determinants may be more in magnitude than in kind.

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