

Intergenerational Relationships in Young Adulthood and Their Life Course, Mental Health, and Personality Correlates

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To evaluate effects of life-course events and experiences of young adults, as well as personality and mental-health history on intergenerational relationships in young adulthood, the authors examined dyadic relationship data drawn from a sample of more than 900 New Zealand 26-year olds and their mothers and fathers. Results indicated that intergenerational relations were more positive when young adults were childless, not unemployed, married, and living away from home, but these factors did not interact with family relationship history in predicting relationship outcomes. Intergenerational relationships were less positive when children scored low on positive emotionality and constraint and high on negative emotionality and mental disorders, though these attributes did not account for the effect of life-course factors. Results are discussed in terms of the openness of the parent-child relationship in adulthood to further development.

Shifting demographics show that more adults are living longer lives. As the population ages, adult "children" will become the primary source of support for many aging

adults. Consequently, a growing number of researchers have focused attention on the quality of adult children's relationships with their parents and on the link between intergenerational relationship quality and the provision of support to aging parents (Bengston & Roberts, 1991; Silverstein, Parrott, & Bengston, 1995; Whitbeck, Hoyt, & Huck, 1994).

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A life-course perspective on human development implies that such caregiving evolves from a long history of interactions and exchanges between parents and children. A key feature of this perspective is the concept of linked lives, which posits that parent-child relationships are affected when either group experiences personal or social changes (Elder, 1998). Because the transition to adulthood brings numerous changes in the lives of at least some young people, including shifts in school attendance, employment, marriage, living arrangements, and parenthood (Goldscheider & Goldscheider, 1993; Rindfuss, 1991), young adulthood would seem to be an ideal time to examine the developing nature of intergenerational relationships.

We wish to express our appreciation to all the many scholars who have contributed to the Dunedin Study over the years and upon whose shoulders we invariably stand. Appreciation is also extended to the study participants and their parents for their participation and continued support.

In an earlier investigation of the same young adults and their parents who are the subject of this inquiry, we examined the extent to which parent-child relationship experiences and family climate measured prospectively during the preschool, middle-childhood, and early adolescent years forecast—separately, collectively, and interactively—intergenerational relationships when "children" were 26 years of age (Belsky, Jaffee, Hsieh, & Silva, 2001). Having discovered that virtually all the predictive power of childhood relationship experiences on intergenerational relationships was accounted for by measurements obtained during

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early adolescence, with more positive parent-adolescent relationships predicting greater warmth and less conflict (i.e., affectional solidarity) in both mother-child and father-child relationships in young adulthood, the first way which we extend research on the determinants of intergenerational relationships in young adulthood in the present inquiry is by investigating the extent to which life-course events and experiences in late adolescence and young adulthood contribute to the prediction of intergenerational relationships over and above relationship experiences in early adolescence.

We further test whether effects of life-course events and experiences in young adulthood on intergenerational relationships are moderated by earlier parent-child relationship quality. Thus, we investigate whether, for example, effects of teenage parenthood or unemployment on parent-child relationships in young adulthood are contingent on the quality of the relationship more than a decade earlier. Working from a risk and protective factors framework, we anticipated that life-course events or experiences postulated to adversely affect intergenerational relationships—such as becoming a parent during the teenage years or being unemployed (and not a student or homemaker) by age 26—would in fact have that effect especially when they are situated in a parent-child relationship whose past history is less than positive. The same line of reasoning led us to hypothesize that the previously documented negative effects of poor parent-child and family relationships during early adolescence on intergenerational relationships in young adulthood would be attenuated when certain life-course events and experiences (e.g., securing gainful employment) buffer them.

A third way in which we extend research on the determinants of intergenerational relationships is by considering effects of mental health and personality measured from late adolescence through young adulthood. If, as expected, life-course events are found to be predictive of intergenerational relationships, we planned to examine how controlling for mental health and personality during the late-adolescent and young-adult years affects the predictive power of life-course events. This approach is premised on the supposition that the very life-course events and experiences that prove predictive of intergenerational relationships in young adulthood could themselves be a function of earlier and concurrent mental health and personality. Indeed, a cumulative-continuity perspective on the life course suggests that the quality of adult relationships is a cumulative consequence of earlier psychological differences between people (Caspi & Roberts, 2001). According to this perspective, psychological differences shape the nature of life-course events during the transition to adulthood (e.g., the timing of parenthood, the timing of leaving home, the length of unemployment), and these events, in turn, shape the quality of adult relationships.

The Life Course

Reflecting on data showing that affective closeness with parents increases when children move from adolescence to

young adulthood (Rossi & Rossi, 1990; Thornton, Orbach, & Axinn, 1995), Aquilino (1997) hypothesized that the quality of parent-child relationships becomes more positive as children move into adult roles and their lives become in more similar to their parents'. This view is consistent with Bengston and Black's (1973) intergenerational similarity hypothesis. It stipulates that when grown children move into adult roles such as employee, spouse, and/or parent, their experiences become more like those of their parents, and it is this increasing similarity of life experiences that serves to strengthen parent-child relationships and promote more adultlike mutuality in the relationship.

Data collected to date do not seem to be entirely consistent with the notion that the adoption of adult roles routinely promotes positive intergenerational relationships, although some research most certainly does not support this view. We briefly summarize findings that emerge from past work, highlighting inconsistencies where they occur. We theorize that some of the inconsistency across inquiries may derive from the fact that much past research has failed to situate individuals' life-course experiences within the context of the relationship history that precedes their relationships with parents in young adulthood. Some of the across-study inconsistency may also derive from how certain life-course events have been conceptualized and measured. Thus, in this inquiry we consider not only whether a given life-course event has occurred (e.g., transition to parenthood) but also whether that transition is normative in terms of its timing (e.g., becoming a parent before age 20). We similarly distinguish unmarried individuals who are in steady, cohabiting relationships from those unmarried persons who are not and move beyond characterizing individuals as employed versus unemployed by differentiating those who are homemakers and students from those who are neither employed nor, apparently, otherwise productively engaged.

Consideration of research on the effects of children's marital status on intergenerational relationships provides some support for the similarity hypothesis, as several sets of findings show that marriage is predictive of positive relationships between young adults and their parents (Aquilino, 1997; Clooney, 1997; Kaufman & Uhlenberg, 1998). However, the fact that White and Rogers (1997) found that never being married predicts greater affective closeness in the parent-child relationship in young adulthood raises questions about the similarity hypothesis. Such inconsistency across studies could be a function of failure to distinguish between those not married who are and who are not cohabiting with a partner or the inability to test whether effects of being partnered are contingent on the history of the parent-child relationship.

When it comes to the potential influence of parenthood on intergenerational relationships in young adulthood, research reveals that, relative to childless adults, those with children have higher levels of conflict with their own parents (Aquilino, 1999; Kaufman & Uhlenberg, 1998); mothers experience less rewarding relationships with their own mothers (Kaufman & Uhlenberg, 1998); and parenthood reduces the frequency of contact that adults have with their parents (Lawton, Silverstein & Bengston, 1994; Rossi & Rossi,

1990). Negative effects of parenthood on intergenerational relationships could derive from generational differences in childrearing philosophies and practices or stem from child-care (or other) burdens placed on the older generation by the younger generation, as White and Rogers (1997) found that parents received more assistance from their own parents than did childless adult children. Although the current inquiry is not positioned to address such family processes, it does afford the opportunity to determine whether it is the timing of parenthood—and specifically becoming a parent before or after age 20—as much as parenthood itself that influences intergenerational relationships in young adulthood.

Employment of the younger generation also seems to influence intergenerational relationships. Short-term longitudinal research by Kaufman and Uhlenberg (1998) indicated that increases in work hours enhanced the father-son relationship, although the opposite was true of daughters who increased their work hours. The fact that daughters who decreased their work hours experienced a decline in the quality of their relationships with their mothers would seem to suggest that intergenerational relationships in young adulthood are at risk in the case of daughters irrespective of how their employment changes.

Unemployment, rather than changes in employment hours, is probably more consequential in terms of intergenerational relationships, perhaps because of its implications for intergenerational support. Aquilino (1999) reported that unemployed adult children experienced more conflict with their parents, whereas those who worked full-time shared fewer activities with them (Aquilino, 1997). Because employment and unemployment are distinct from continuing one's education as a student or adopting the role of a homemaker, it may be important to move beyond the occupational dichotomy of employed-unemployed-as we attempt to do in the current inquiry—to fully appreciate how life-course events and experiences shape intergenerational relationships. Nevertheless, it remains our prediction, consistent with most other work on this topic, that the nonproductive activity of unemployment, in contrast to the more productive activity of being employed, being a student, or being a homemaker, is likely to be a primary factor related to less positive parent-child relationships in young adulthood.

Where the younger generation resides also seems to matter when it comes to the quality of intergenerational relationships. A prolonged transition to adulthood and delayed age at marriage have meant that more children are living at home longer and often returning home after a period of independent living (Goldscheider & Goldscheider, 1993). In addition, there is repeated indication in the literature that co-residence has both positive and negative effects on intergenerational relationships. Whereas co-residence has been linked with elevated levels of interaction and more reciprocal assistance (Rossi & Rossi, 1990; White & Rogers, 1997), as well as higher levels of affective closeness (Aquilino, 1997), it has also been associated with higher levels of intergenerational conflict (Aquilino, 1997; Aquilino & Supple, 1991). Such findings call to mind Luescher

and Pillemer's (1998) recent assertion that ambivalence best describes many parent-child relationships in adulthood. Although it is probably indisputable that virtually every relationship is tinged with ambivalent sentiment, it remains possible that the seemingly positive and negative effects of co-residence may not be exclusively a function of the costs and benefits of young adults living with their parents. Relationship history may also matter. A young adult who lives at home and has a positive relationship history with parents may have a very different experience, as do parents, than one with a more negative relationship history. It is for this reason that we examine effects of life-course events in the context of relationship history in this inquiry.

Mental Health and Personality

Sociologists refer to the age span between 15 and 30 years of age as the period of "demographic density," because of its many closely spaced life events; this is the peak period for exiting and entering multiple social roles (Rindfuss, 1991). Perhaps not surprisingly, late adolescence to young adulthood is also the peak age period for mental health problems among both men and women (Kessler et al., 1994). As such, it is important to establish whether life-course events have a unique influence on the ongoing quality of relationships between family members or whether these life-course events influence intergenerational relationships because they are associated with distinct mental health and personality profiles. The former finding would imply that life-course events might have causal force in shaping adult parent-child relationships, whereas the latter finding would suggest that the quality of adult parent-child relationships is a cumulative consequence of events set in motion by earlier established psychological differences (Caspi & Roberts, 2001).

Common psychiatric disorders, such as depression, substance dependence, and conduct disorder are known to exert a significant and disruptive influence on the transition to adulthood (Kessler, Foster, Saunders, & Stang, 1995; Kessler, Walters, & Forthofer, 1998). Likewise, personality vulnerabilities in adolescence increase the prospect that young adults will encounter difficulties as they assume new roles and relationships (Mortimer, Lorence, & Kumka, 1986). These very same psychiatric disorders and personality vulnerabilities also compromise the quality of ongoing relationships between family members (Rudolph et al., 2000). Thus, we examine whether a history of mental health problems and a constellation of personality vulnerabilities in late adolescence account for the influence of life-course events on parent-child relationships in adulthood. We predicted that not only would personality and mental health factors account for some of the effects of life-course events and experiences on intergenerational relationships but also that intergenerational relationships would evince greater warmth and less conflict in cases in which children scored higher on positive emotionality and constraint and lower on negative emotionality and mental health disorders. The possibility also needs to be entertained that, irrespective of its effect on the affective valence of the parent-child relation-

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ship in young adulthood, a history of mental health disorders in the young-adult child might result in greater contact and assistance due to the continuing needs of the "child."

In sum, in this extension of our earlier research on the determinants of intergenerational relationships in young adulthood (Belsky et al., 2001), we sought to determine whether-and how-a series of life-course events and experiences that characterize the transition to adulthood, along with personality and mental health during adolescence, relate to the quality of intergenerational relationships in young adulthood. The research was designed to examine how these potential sources of influence shape parent-child relationships during young adulthood after taking into account the quality of earlier parent-child relationships and family climate during the previous years. In addition, we sought to establish whether any effects of life course, personality, or mental health factors are conditioned by family relationship quality during adolescence.

Method

Participants

The participants in this study were 980 (96%) of the 1,019 surviving study members of the original Dunedin (New Zealand) Multidisciplinary Health and Development Study (DMHDS) birth cohort and their parents (905 mother, 838 fathers). Participating mothers represented 97% of 932 invited to participate; participating fathers represented 97% of 867 invited to participate. At the time when data on intergenerational relationships in young adulthood were collected from young-adult children and their parents, the ages of mothers and fathers, respectively, were 52 and 54 years of age on average. No significant attrition effects in terms of socioeconomic status, intelligence, family adversity, or any of various behavioral measures characterized the studied sample.

The DMHDS is a longitudinal investigation of the health, development, and behavior of a complete cohort of consecutive births between April 1, 1972, and March 31, 1973, in Dunedin, an urban area of approximately 120,000 inhabitants in the South Island of New Zealand (Silva, 1990; Silva & Stanton, 1996). The 1,037 original study members are representative of the 1,139 children born in Dunedin during the dates indicated in terms of socioeconomic status and perinatal complications. With regard to social origins, the children's fathers were representative of the social class distribution in the general male population of similar age in the South Island of New Zealand. The sample members were of predominantly European ancestry. Approximately 7% of participants identified themselves as Maori or Polynesian, which matches the ethnic distribution of New Zealand's South Island (nearly 90% of the Maori population is concentrated in the North Island).

New Zealand is quite similar to the United States in many ways. Both countries are English-speaking, first-world, and ex-colonies of England, so that dissimilarities in the legal system, social norms and values, standard of living, and cultural practices are few. As a rule of thumb, New Zealand is as similar to the United States as is Canada. Moreover, the Dunedin metropolitan area, where the sample members grew up (and 44% still live, as do their parents) is demographically similar and economically much like the mid-sized towns where many Americans live. It is because of these similarities between New Zealand and the United States that it is reasonable to assume that findings emanating from this research should generalize beyond the confines of New Zealand.

Data Collection and Design

Four sets of data need to be distinguished: (a) information on intergenerational relationships in young adulthood provided by young adults at age 26 years and from their mothers and fathers; (b) data on life-course events gathered during the course of the study and covering the period from participant ages 15 to 26; (c) data on child personality and mental health during late adolescence and young adulthood; and (d) data on family relationships when children were 13 and 15 years of age.

Intergenerational Relationships

When the participants visited the Dunedin research unit for an all-day data collection focused on multiple aspects of their lives and functioning at age 26 years, they answered questions, administered in interview format, about their relationship with each of their parents. They also supplied names and addresses of their parents, who were then contacted by mail to secure their responses to a set of questionnaires asking the same questions to which their children responded during the young-adult interview.

Building on the work of Bengtson and Harootyan (1994), parent-child relationships in adulthood were conceptualized in terms of intergenerational solidarity (Bengtson & Black, 1973) and were assessed with Likert-type measurements developed and used by Whitbeck et al. (1994); Whitbeck, Simons, and Conger (1991); Silverstein et al. (1995); and Lawton et al. (1994) in their studies of intergenerational relationships. In order to reduce the number of dependent measures subject to analysis, and because we desired to predict intergenerational relationships rather than each parent's and child's separate perceptions of these relationships, we focused data reduction efforts on the creation of internally consistent composite measures that included items from both participants in the relationship (for details see Belsky et al., 2001).

Intergenerational contact was measured with two items (answered by each member of the dyad) reflecting the extent to which the respondent was in face-to-face and telephone contact over the past year and a third item (answered by both dyad members) reflecting whether parents and young adult children had spent Christmas together. The correlation between parent and child scores was .65 ($p < .001$) for both parent-child relationships.

Intergenerational closeness was assessed with seven items (answered by each member of the dyad) assessing the overall quality of the relationship, ranging from 1 (*very poor*) to 5 (*excellent*), as well as the extent to which each partner in the relationship felt loved and appreciated by the other, could depend on help from the other were it needed, felt emotionally close to the other, had good communication with and shared feelings with the other, felt understood by the other, and understood the other. The correlation between parent and child scores was .46 ($p < .001$) and .47 ($p < .001$) for the mother-child and father-child relationships, respectively.

Intergenerational conflict was evaluated with a single item assessing the extent to which there was conflict, tension, and disagreement in the relationship. The correlation between parent and child scores was .33 ($p < .001$) and .22 ($p < .001$) for the mother-child and father-child relationships, respectively.

Intergenerational assistance was measured by asking the relationship participant a series of 14 questions about the assistance she or he gave and (separately) received of the following forms: financial; care when sick; help with travel; home maintenance; information and advice concerning marriage, friendship, and close relationships; and emotional support when upset. Parent-child correlation was .43 ($p < .001$) in the case of mothers and .44 ($p < .001$) in the case of fathers.

For purposes of data reduction, the four scores generated for mothers and the four scores generated for adult children were subject to principal-components factor analysis with varimax rotation; the same practice was followed in the case of father and child data. For each parent-child dyad, two clear factors emerged (Belsky et al., 2001), with high and discriminative loadings for contact and assistance on one and high and discriminative loadings for closeness and conflict on the other. The former, labeled *functional-associational solidarity*, was formed by standardizing the intergenerational assistance and contact scores before averaging them ($M = .01$, $SD = .45$, for mother-child and $M = -.02$, $SD = .52$, for father-child). The latter, labeled, *affectional solidarity*, was formed by standardizing and averaging the intergenerational closeness and conflict scores ($M = -.02$, $SD = .73$, for mother-child and $M = .05$, $SD = .75$ for father-child). The internal consistency reliability of these composite scores were, respectively, .83 and .86 for mother-child relationships and .84 and .87 for father-child relationships.

Life-Course Factors

Four life-course attributes of participants were measured.

Parenthood status. On life-history calendars administered at ages 21 and 26 years participants reported whether-and if applicable when-they mothered or fathered a child (Caspi et al., 1996). The period covered by these calendars extended from the study member's 15th birthday to the time of the second interview. By age 26, 26% of all study women and 19% of all study men had become parents. Mothers' age at first child's birth ranged from 15 to 26 years, and fathers' age at first fatherhood ranged from 14 to 26 years. Five percent of the study men and 7.5% of the study women were younger than 20 years when they made the transition to parenthood.

Employment status. At age 26, participants reported on their current main activity. Three quarters (75%) reported that they were employed, 19% were unemployed or homemakers, and 6% were students.

Residential status. During the young-adult interview, participants were asked how close they lived to their mother or father. Those who reported that they lived in the same homewere coded as residing with their parents (12.5%).

Relationship status. In an interview concerning partner relationships, participants reported on their current relationship status. Nearly half (46.5%) reported that they were cohabiting with their partner, and 18% reported that they were married. The remainder were not dating or were involved in a romantic relationship but not living with their partner.

Mental Health and Personality in Late Adolescence and Young Adulthood

Between ages 18 and 26 years, the mental health and personality of participants were measured.

History of mental health problems. At ages 18, 21, and 26 years, participants were administered the Diagnostic Interview Schedule (DIS; Robins, Cottler, Bucholz, & Compton, 1995). The reporting period was 12 months prior to the interview. Diagnoses of mental disorder were made according to criteria from the *Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised* (American Psychiatric Association, 1987) at ages 18 and 21 years and criteria from the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (American Psychiatric Association, 1994) at age 26 years. Diagnoses of disorder

included major depression, dysthymia, mania, schizophreniform disorder, antisocial personality, drug and alcohol dependence, anorexia, bulimia, and anxiety (i.e., generalized anxiety, post-traumatic stress disorder, obsessive-compulsive disorder, simple phobia, social phobia, agoraphobia, and panic disorder). The DIS demonstrates good interrater reliability ($\kappa > .85$) and validity in this cohort, as demonstrated by high levels of treatment seeking and functional impairment among the disordered group. Interviewers were unaware of the participants' psychiatric history and had tertiary degrees and experience in social work, medicine, and clinical psychology. A continuous variable, representing a history of mental health problems, was created by summing the number of ages at which participants earned a diagnosis of any mental disorder. Thus, a participant who was never diagnosed with any mental disorder would have a score of 0, and a participant diagnosed with any mental disorder at ages 18, 21, and 26 years would have a score of 3 on this variable.

Personality. At age 18 years the participants completed a modified version of the Multidimensional Personality Questionnaire (MPQ; Tellegen, 1982), a self-report personality instrument designed to assess a broad range of individual differences in affective and behavioral style, yielding 10 different scales (Krueger, Caspi, & Moffitt, 2000). These were combined to reflect three higher order superfactors: Negative Emotionality, Positive Emotionality, and Constraint (Patrick, Curtin, & Tellegen, 2002). Individuals high on Negative Emotionality have a low general threshold for the experience of negative emotions such as fear, anxiety, and anger and tend to break down under stress. Individuals high on Positive Emotionality tend to seek pleasurable experiences by forming relationships with others and by engaging the environment and overcoming the challenges it presents. Individuals high on Constraint tend to endorse social norms, act in a cautious and restrained manner, and avoid thrills (Tellegen et al., 1988).

Antecedent Family Relationships During Early Adolescence

Two sets of measurements obtained when children were adolescents were used to generate a measure of family relationships. At both 13 and 15 years of age, mothers completed the Family Environment Scale (FES; Moos & Moos, 1981), which assesses the family atmosphere with 90 true-false items that form 10 subscales. A measure of family climate, based on three FES subscales that make up the family relationships index, was constructed by summing the Cohesion and Expressiveness subscales of the FES at ages 13 and 15 and subtracting from them the Conflict subscale scores at these two ages ($\alpha = .73$). In addition, when children were 13 and 15 they reported on their attachment to parents using a 24-item shortened version of Armsden and Greenberg's (1987) 53-item Inventory of Parent and Peer Attachment, which assesses the extent to which the adolescent feels he or she has a trusting, communicatively open, and nonalienated relationship with his or her parents. Nada Raja, McGee, and Stanton (1992) found the brief version of the attachment-to-parents subscale, labeled Relationship Quality, to be internally consistent ($\alpha = .78$) with the Dunedin sample. Further, they found that children scoring low on the scale scored significantly worse on multiple measures of mental health, including anxiety, depression, inattention, and conduct problems. These findings replicate results from a smaller U.S. sample reported by Armsden and Greenberg (1987). For purposes of this report, the measures of family climate

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and parent-child relationship quality were composited to create an index of family relationships during early adolescence ($\alpha = .79$).

Results

We conducted a hierarchical linear regression analysis to assess whether normative transitions to young adult roles and responsibilities were associated with intergenerational relationships in young adulthood, over and above (main) effects of sex and family relationships during early adolescence. At the first step, child sex (female) was entered as a predictor of affectional and functional-associational solidarity in young adulthood, separately for mother-child and father-child relationships. Quality of family relationships in early adolescence was entered at the second step. At the third step, a series of contrast-coded variables representing transitions to young adult roles and responsibilities was entered. These included (a) not living at home, (b) being partnered in a romantic relationship, (c) being married (vs. being partnered), (d) having a job or being a student or homemaker versus being unemployed, (e) being employed (vs. being a student or homemaker), and (f) not being a parent. Although we conceptualized giving birth by age 26 years as an off-time and early non-normative transition, we analyzed whether (f) giving birth in one's early 20s versus giving birth as a teenager was associated with intergenerational relationships in young adulthood.

Results are presented in Tables 1 and 2. As reported in Belsky et al. (2001), being female was positively associated with parent-child affectional solidarity and mother-child functional-associational solidarity (Model 1). Family relationships showed considerable continuity from adolescence to young adulthood (Belsky et al., 2001). Those families with more positive relationships in early adolescence experienced higher levels of parent-child affectional and functional-associational solidarity at age 26 (Model 2). Notably, these previously reported effects of early family relationships on intergenerational relationships in young adulthood were not mediated by normative transitions to young adult roles and responsibilities (Model 3). Comparison of Models 2 and 3 shows, in this regard, that effects of family relationships during early adolescence were not substantially attenuated once life-course variables were included in the regression models, as would be expected if earlier family relationships affect intergenerational relationships in young adulthood via their impact on life-course transitions and experiences.

The results of Model 3 confirm the prediction that normative transitions to young adult roles and responsibilities would be associated with intergenerational relationships in young adulthood over and above the effect of family relationships during early adolescence. Young adult children who had delayed childbearing experienced elevated levels of affectional solidarity with parents compared with their peers who made the transition to parenthood by age 26. Those who were not unemployed had elevated levels of mother-child affectional and functional-associational solidarity, although the latter effect was accounted for by the fact that students and homemakers had higher levels of

mother-child functional-associational solidarity compared with age mates with paying jobs. Young adults who were in serious romantic relationships also had warmer, closer relationships with parents and elevated levels of functional-associational solidarity with fathers, but only when the adult children were married. Finally, contrary to expectations, moving away from home was not associated with affectional solidarity in young adulthood. Indeed, those young adults who lived at home experienced higher levels of functional-associational solidarity with their parents compared with those who did not.

One of the core goals of this inquiry was to study the effect of life-course factors and experiences on intergenerational relationships in context, that is, in the context of the family's developmental history. A risk and protective factors' framework led us to examine interactions between each of the life-course variables and measure of family relationships during early adolescence in the prediction of intergenerational relationships in young adulthood. Although logic suggested that a positive history might amplify the positive effects of normative transitions or that a negative history might amplify the effects of non-normative transitions, or even that normative transitions might protect against the detected negative effects of more problematic family relationships during early adolescence, no evidence for any interactive effects emerged. This was true whether we examined the effects of interactive effects singularly, that is, by entering only one into each regression equation, or collectively.

What Accounts for the Link Between Normative Transitions and Intergenerational Relationships in Young Adulthood?

It is possible that the detected association between normative transitions to young adult roles and responsibilities and parent-child relationships in young adulthood are spurious and a function of characteristics of the individual participants that influence both outcomes. The results of Model 4 indicate, however, that a history of mental disorder and the personality characteristics of positive emotionality, negative emotionality, and constraint did not account for the detected linkages between normative transitions to young adult roles and responsibilities and intergenerational relationships in young adulthood. That is, controlling for these individual characteristics did not reduce the association between normative transitions and intergenerational relationships to nonsignificance, nor did they substantially attenuate them, as revealed by comparing results of Models 3 and 4.

Noteworthy, however, was the fact that individual characteristics predicted aspects of intergenerational relationships. Participants who scored higher on negative emotionality experienced lower levels of affectional solidarity in their relationships with their mothers, whereas those with a history of mental disorder experienced lower levels of affectional solidarity in their relationships with their fathers. In contrast, those with a history of mental disorder experienced higher levels of mother-child functional-

Table 1
The Effect of Child Sex, Family Relationships During Early Adolescence, Normative Transitions to Young Adult Roles and Responsibilities, and Individual Characteristics on Parent-Child Affectional Solidarity in Young Adulthood

Variable	Model 1	Model 2	Model 3	Model 4
Mother-child affectional solidarity				
Regression Coefficient	$R^2 = .013^{***}$	$\Delta R^2 = .067^{***}$ Total $R^2 = .12$	$\Delta R^2 = .021^{**}$	$\Delta R^2 = .016^{**}$
Child sex ^a	.11 ^{***}	.10 ^{**}	.09 ^{**}	.08 [*]
Family relations during early adolescence		.26 ^{***}	.24 ^{***}	.20 ^{***}
Twenties parent (vs. teen parent)			.05	.04
Not a parent (vs. a parent)			.13 ^{***}	.12 ^{**}
Not unemployed			.08 [*]	.07 [*]
Employed vs. student/homemaker			-.03	-.05
Partnered vs. not partnered			.06	.04
Married (vs. nonmarried partner)			.08 [*]	.08 [*]
Lives away from home			-.03	-.03
History of mental health problems				-.03
Positive emotionality				.06
Negative emotionality				-.10 ^{**}
Constraint				.00
Father-child affectional solidarity				
Regression Coefficient	$R^2 = .006^*$	$\Delta R^2 = .043^{***}$ Total $R^2 = .09$	$\Delta R^2 = .030^{***}$	$\Delta R^2 = .015^{**}$
Child sex ^a	.08 [*]	.07	.07 [*]	.07
Family relations during early adolescence		.21 ^{***}	.19 ^{***}	.15 ^{***}
Twenties parent (vs. teen parent)			.06	.06
Not a parent (vs. a parent)			.10 [*]	.09 [*]
Not unemployed			.02	.01
Employed vs. student/homemaker			.08	.06
Partnered vs. not partnered			.05	.03
Married (vs. nonmarried partner)			.11 ^{**}	.10 ^{**}
Lives away from home			.008	.02
History of mental health problems				-.11 ^{**}
Positive emotionality				.02
Negative emotionality				.01
Constraint				.05

^a Male was coded as 0; female was coded as 1.
^{*} $p < .05$. ^{**} $p < .01$. ^{***} $p < .001$.

associational solidarity; the same was true of participants who scored high on positive emotionality. Finally, high levels of constraint were associated with parent-child functional-associational solidarity.

Cumulative Effects of Normative Transitions

As a final step, we tested whether normative transitions exerted a cumulative effect on intergenerational relation-

ships. Normative transitions were defined, on the basis of results already reported, as (a) not being a parent, (b) not being unemployed, (c) being married, and (d) not living at home. Thus, the number of normative transitions made by participants ranged from 0 to 4. As only 2 participants made no normative transitions, these were combined with the group who made one normative transition ($n = 59$). A total of 240 participants made two normative transitions, 591 made three normative transitions, and 93 made four norma-

Table 2
The Effect of Child Sex, Family Relationships During Early Adolescence, Normative Transitions to Young Adult Roles and Responsibilities, and Individual Characteristics on Parent-Child Functional-Associational Solidarity in Young Adulthood

Variable	Model 1	Model 2	Model 3	Model 4
Mother-child functional-associational solidarity				
Regression Coefficient	$R^2 = .056^{***}$	$\Delta R^2 = .006^*$ Total $R^2 = .19$	$\Delta R^2 = .120^{***}$	$\Delta R^2 = .020^{***}$
Child sex ^a	.24***	.23***	.20***	.18***
Family relations during early adolescence		.08*	.10***	.10**
Twenties parent (vs. teen parent)			.05	.05
Not a parent (vs. a parent)			-.07	-.05
Not unemployed			.12***	.12***
Employed vs. student/homemaker			-.12**	-.12**
Partnered vs. not partnered			.01	.004
Married (vs. nonmarried partner)			.02	.02
Lives away from home			-.31***	-.31***
History of mental health problems				.09**
Positive emotionality				.07*
Negative emotionality				.03
Constraint				.10*
Father-child functional-associational solidarity				
Regression Coefficient	$R^2 = .003$	$\Delta R^2 = .012^{***}$ Total $R^2 = .08$	$\Delta R^2 = .055^{**}$	$\Delta R^2 = .010$
Child sex ^a	.05	.05	.05	.02
Family relations during early adolescence		.11***	.12***	.10**
Twenties parent (vs. teen parent)			.02	.02
Not a parent (vs. a parent)			-.02	-.02
Not unemployed			.06	.06
Employed vs. student/homemaker			-.02	-.03
Partnered vs. not partnered			-.008	-.02
Married (vs. nonmarried partner)			.07*	.06
Lives away from home			-.22***	-.21***
History of mental health problems				.02
Positive emotionality				.04
Negative emotionality				.03
Constraint				.11**

^a Male was coded as 0; female was coded as 1.

* $p < .05$. ** $p < .01$. *** $p < .001$.

tive transitions. Controlling for study member sex and family relationships during adolescence (Table 3), we found that number of normative transitions predicted both parent-child affectional and functional-associational solidarity. The effects were not the same across dependent variables, however. The greater the number of normative transitions made by participants, the more affectional solidarity but the less functional-associational solidarity there was.

Discussion

The research presented in this report sought to determine whether life-course experiences and events characterizing the transition to adulthood contributed to the prediction of intergenerational relationships over and above earlier family relationship experiences, and whether family relationship quality during early adolescence conditioned any detected

Table 3
The Effect of Child Sex, Family Relations During Early Adolescence, and Cumulative Normative Transitions to Young Adult Roles and Responsibilities on Intergenerational Relationships in Young Adulthood

Regression step/variable	Affectional solidarity		Functional-associational solidarity	
	Mother-child	Father-child	Mother-child	Father-child
Step 1	R ² = .015***	R ² = .005*	R ² = .062***	R ² = .003
Child sex ^a (male = 0, female = 1)	.12***	.07*	.25***	.05
Step 2	R ² = .31***	R ² = .047***	R ² = .005*	R ² = .12***
Family relationships during early adolescence	.31***	.22***	.07*	.12***
Step 3	R ² = .12***	R ² = .023***	R ² = -.17***	R ² = .005*
Number of normative transitions	.12***	.15***	-.17***	-.07*
Total R ²	.094	.075	.095	.022

Note. Parameter estimates reflect their value at the step when they were entered.

^a Male was coded as 0; female was coded as 1.

* $p < .05$. *** $p < .001$.

effects of life-course experiences. We further sought to determine whether psychological attributes of individuals during their late adolescence and young adulthood proved predictive of intergenerational relationships and whether personality characteristics and mental-health problems might explain, through processes of selection, how life-course events and experiences come to exert any detected influence on intergenerational relationships. Before proceeding to discuss the findings that emerged from this study, attention must be called to the correlational nature of the data under consideration. Even though causal terminology is used for heuristic purposes, the reader is reminded that the research design does not, strictly speaking, afford causal inferences to be drawn.

Life-Course Events and Experiences

Results of this research clearly show that life-course factors and processes explain variation in intergenerational relationships above and beyond that explained by family-relationship quality during early adolescence. Once the latter was controlled, intergenerational relationships were characterized by greater warmth and less conflict when young adults remained childless at age 26. Whether a young adult became a parent during his or her teenage years did not seem to matter, however. These data, showing greater affectional solidarity in the case of childless young adults, are not entirely consistent with the view that becoming more similar to parents in terms of roles and responsibilities promotes more positive intergenerational relationships. They are, however, in line with a normative development framework, which in today's world suggests it is best to defer the transition to parenthood until other adult roles are well established (i.e., marriage, employment), which was not the situation of most 26-year olds.

More consistent with Bengston and Black's (1973) intergenerational-similarity hypothesis was the evidence

that young adults who were unemployed experienced lower levels of mother-child affectional and functional-associational solidarity. What is surprising, perhaps, is that the same was not true of father-child relationships. After all, traditional stereotypes might suggest that fathers more than mothers would be affected, even bothered, by a child's unemployed status at age 26. The fact that it was only unemployed children rather than those who were without paying jobs but were otherwise "productively engaged" (i.e., students or homemakers) who experienced lower levels of contact and reciprocal assistance in their relationships with their mothers suggests that it is productive activity rather than employment per se that affects intergenerational relationships. From a methodological standpoint, this finding highlights the importance of moving beyond the employed versus not employed dichotomy when endeavoring to capture functional variation in the "occupational" roles of young adults.

Perhaps the strongest evidence in favor of the similarity hypothesis, as well as additional evidence on the benefits of making important distinctions between life-course categories such as employed versus unemployed and single versus married, derives from the finding that young adults who were in serious romantic relationships also had warmer, closer relationships with parents and more contact and reciprocal exchange (i.e., functional-associational solidarity) with fathers, but only when the adult children were married. These results not only highlight the need to distinguish between types of romantic partnerships (i.e., cohabiting vs. married) but also suggest that issues of conventionality may be shaping how 26-year-olds and their parents relate to one another. Even during the late 20th and early 21st centuries in a country such as New Zealand where cohabitation is very common, indeed almost normative, intergenerational relationships appear to be different when young adults make formal commitments to their relationship partner and when

they do not. What makes this finding particularly interesting is that it is obviously not a function of earlier patterns of family relationships or child personality and mental health, as these potential sources of influence have been taken into consideration. This does not leave out the possibility, however, that some other third variable, perhaps religiosity, for example, could be accounting for this marriage-specific result.

When considered collectively, it appears that the more normative the life course of the young adult, the more positive and less conflicted are mother-child and father-child relationships, though the less the extent to which contact and reciprocal exchange characterize the experience of parents and children. Recall that when the young adult child was childless, engaged in productive activity (i.e., student, homemaker, employed), married, and/or not live-home, affectional solidarity was likely to be higher in both parent-child relationships than when fewer of these achievements characterized the life-course of young adults. The fact that under these conditions functional-associational solidarity was somewhat reduced relative to what it was when fewer of these conditions characterized the life course of young adult children suggests that during the mid 20s being connected emotionally with parents is different from having frequent contacts and assisting one another. What will be of interest to observe in future follow-ups of this sample is whether, as parents age, meeting what appear to be normative expectations regarding the structure of the life course will predict greater functional-associational solidarity, as well as greater affectional solidarity.

Whatever the main effects of the young adult's life course on intergenerational relationships, we had expected to find, reasoning from the standpoint of risk and protective factors, that life-course effects would be conditioned by earlier relationship history. This proved not to be the case. Such nonresults—which cannot be attributed to low statistical power in a sample, which exceeds 900—suggest that parent-child relationships are continuously developing, perhaps in ways that are more open-ended than many developmentalists have presumed. Our failure to find that the impact of life-course events and experiences on intergenerational relationships are moderated by family climate and parent-child relationship quality during early adolescence raises the prospect that past relationship history is not exerting much impact on later relationship development. As it remains the case that the legacy of the parent-child relationship during the first decade and a half of the child's life could emerge more strongly when more members of the younger generation get married and/or become parents, and as parents themselves age, it would seem premature to draw conclusions on the issue at this juncture. Nevertheless, given the modest power of earlier parent-child too firm relationships to predict intergenerational relationships (Belsky et al., 2001), the present results alert us to the possibility that the past is not always—or even very strongly—prologue.

Individual Psychological Attributes

In addition to the unexpected result that the quality of family relationships during early adolescence and life-course events and experiences did not interact in predicting intergenerational relationships, some of the findings concerning the psychological attributes of children proved inconsistent with expectations as well. Here we are referring not so much to the main effects of personality and mental health on intergenerational relationships but to the fact that these rather stable psychological attributes did not account for the effects of life-course factors detected in this inquiry. Recall that controlling for the former had virtually no effect on the impact of the latter when it came to predicting intergenerational relationships in young adulthood. This is not what we anticipated, as we had presumed that individual psychological attributes affected life-course events and experiences and, thereby, intergenerational relationships in adulthood. Apparently, that is not the case. Indeed, the results of this inquiry suggest that whatever the effects of life-course events and experiences on intergenerational relationships, they are relatively independent of those exerted by the individual psychological characteristics of young adult children considered in this investigation. This finding lends support to the argument that life-course events may have causal force in shaping adult parent-child relationships and are not merely a link in a chain of events leading from previously established psychological differences to the quality of adult parent-child relationships. Interestingly, the personality and mental health attributes of adolescents did have significant consequences for the quality of their adult relationships with their parents, independent of life-course events. This suggests that although the personality and mental-health attributes of adolescents do not have cumulative consequences for adult parent-child relationships, they do have important contemporary consequences; that is, these attributes are brought to bear directly on their ongoing relationships with their parents.

It is not surprising that lower levels of affectional solidarity characterized mother-child relationships when young adults scored high on negative emotionality, reflecting a tendency to be anxious, depressed, and irritable, or that the same was true of father-child affectional solidarity when children had a history of mental disorder. Challenging personalities and psychiatric problems clearly take a toll on parent-child relationships, even after most parents are no longer responsible on a day-to-day basis for their children's care and well-being. It also seems commonsensical that mother-child and/or father-child relationships are characterized by high levels of functional-associational solidarity when high levels of positive emotionality and constraint characterize the psychological make-up of children. When a child has a tendency to be happy and sociable, and/or responsible and conscientious, it is easy to see why parent-child contact and reciprocal helping is likely to be more, rather than less, frequent. That a history of mental disorder predicted higher levels of mother-child functional-associational solidarity serves as a reminder, however, that frequent contact and assistance may not always reflect

choice. In the case of children with a history of mental disorder, high levels of functional-associational solidarity may reflect obligation and responsibility on the part of parents more than anything else, as it seems probable that the effect under consideration reflects the likely parenting burden that mothers of disordered (or at least once-disordered) children continue to impose on their parents, even as young adults.

Implications for Application and Public Policy

The core take-home messages of the research presented in this report are simple and straightforward: First, events and experiences in the life course of young adults during the transition to parenthood appear to affect intergenerational relationships, such that parent-child relationships during this developmental period appear more mutually satisfying (i.e., greater warmth, less conflict) when children are engaged in a productive activity and remain childless (at least through age 26) but are married and living away from home. Yet, second, in addition to these aspects of individual lives, also important for shaping intergenerational relationships are a young adult's personality and mental-health history such that relationships are more mutually satisfying when young adults score high on positive and low on negative emotionality, are responsible and conscientious, and do not have a history of mental disorder. Third, the effect of life-course events and experiences on intergenerational relationships appears not to be a function of personality and mental health, nor does it seem to be moderated or conditioned by the history of the parent-child relationship (at least as measured in this study).

In view of the fact that most children will be in some kind of relationship with their parents for decades after they become emancipated and that many children will incur some responsibility for their parents' well-being as the older generation ages, results reported herein could be regarded as promising for parent-child relationships and thus practice and policy. In this respect, we are thinking in particular about the absence of interactions between parent-child relationship history and the effects of life-course events and experiences. Had it proved to be the case, for example, that unemployment or teenage parenthood on the part of the child amplified the effects of a troubled relationship history, then there would seem to be less room for relationship improvement over time. However, as such interactions between relationship history and life-course factors were entirely absent, one is left to conclude that, at least to some substantial degree, past may not be prologue when it comes to intergenerational relationships. If even troubled relationships can right themselves, then this suggests that efforts toward this end in adulthood might be worth pursuing. To our knowledge, no interventions have been undertaken with such a goal in mind. As grown children are important sources of emotional, instrumental, and financial supports to aging parents, however, there is clear reason to consider such efforts. What form, exactly, these efforts might take remains to be seen, but certainly if they are not imagined, they cannot be realized.

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