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Incorporating Religiosity into a Developmental Model of Positive Family Functioning across Generations

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Abstract

This study evaluated a developmental model of intergenerational continuity in religiosity and its association with observed competency in romantic and parent-child relationships across two generations. Using multi-informant data from the Family Transitions Project, a 20-year longitudinal study of families that began during early adolescence ($N = 451$), we found that parental religiosity assessed during the youth's adolescence was positively related to the youth's own religiosity during adolescence which, in turn, predicted their religiosity after the transition to adulthood. The findings also supported the theoretical model guiding the study, which proposes that religiosity acts as a personal resource that will be uniquely and positively associated with the quality of family relationships. Especially important, the findings demonstrate support for the role of religiosity in a developmental process that promotes positive family functioning after addressing earlier methodological limitations in this area of study, such as cross-sectional research designs, single informant measurement, retrospective reports, and the failure to control for other individual differences.

Keywords

Religion; Adolescence; Intergenerational transmission; Parenting and parenthood; Romantic relationships

Considerable evidence suggests that experiences in the family of origin are associated with later behaviors, values, and attitudes, including interpersonal competencies in family relationships and religious beliefs (Conger, Cui, Bryant, & Elder, 2000; Oriña, Collins, Simpson, Salvatore, Haydon, & Kim, 2011; Sroufe, Egeland, Carlson, & Collins, 2005). Moreover, drawing on intergenerational data from longitudinal studies, there is evidence that specific behaviors in the first generation (G1) are associated with similar behaviors in the second generation (G2) (e.g. Belsky, Jaffee, Sligo, Woodward, & Silva, 2005; Conger,

Neppl, Kim, & Scaramella, 2003). For example, Neppl, Conger, Scaramella, and Ontai (2009) found intergenerational continuity in parenting behavior. One potential mechanism for this intergenerational transmission involves social learning processes (Grusec, 1992) whereby children acquire behaviors, values, and attitudes based on the modeling and direct training that occurs in the family of origin. Importantly, these values and attitudes may then influence future behaviors that occur in the context of the next generation of family relationships (see Bryant & Conger, 2002).

Interestingly, both religious practices and the quality of interactions with other family members appear to demonstrate intergenerational continuity. Moreover, religiosity has been associated with greater competence in romantic and parenting roles (e.g., Booth, Johnson, Branaman, & Sica, 1995; Gunnoe, Hetherington, & Reiss, 1999). These findings suggest the possibility of interdependencies in religious beliefs and the quality of family interactions across time and generations. Indeed, there is increasing scientific interest in the role that religiosity may play in interpersonal relationships. Accordingly, the current study incorporates religiosity into an existing model of the development of interpersonal competencies (Bryant & Conger, 2000) to provide an even broader perspective on the antecedents of interpersonal functioning in the context of the family. This model is tested using observational and questionnaire data from the Family Transitions Project (e.g., Conger & Conger, 2002), a 20-year, prospective study of multiple family generations.

The Theoretical Model and Previous Literature

Figure 1 provides the conceptual model which guides the present investigation. An important theoretical advance of this model is that it integrates insights from earlier research on religiosity and the quality of family relationships (e.g. Mahoney, 2010) with the developmental framework proposed by Conger and his colleagues (e.g., Bryant & Conger, 2002; Conger et al., 2000). The general purpose of the previous developmental model was to conceptualize how family interactions are related to future interpersonal competencies. By interpersonal competencies we refer to a suite of observable behaviors that enable individuals to fulfill the roles of committed romantic partner and parent (such as providing warmth and support in romantic interactions and providing warmth and consistent discipline in parent-child relationships). Consistent with Grusec (1992) and others, the model is based on the notion that social learning of beliefs, values, and behaviors in the family of origin will be replicated to a significant degree in the next generation of families. Figure 1 also reflects the intergenerational design of the present study which enables us to test whether certain patterns replicate from one generation to the next.

As seen in Figure 1, we propose that G1 religiosity will be associated with positive marital relationships and parenting behaviors for the first generation during G2's adolescence. These pathways reflect the hypothesized connection between religiosity and interpersonal competencies in the first generation. In turn, we expect that experiences in the family of origin will be associated with G2 romantic and parenting relationships when G2 adolescents become adults both through the direct influence of positive marital and parenting behaviors by G1 and also because religiosity contributes to interpersonal competencies in subsequent adult relationships. That is, we expect religiosity to be one aspect of a developmental process involving continuities in values and attitudes across generations that helps individuals enact behaviors needed for competent functioning in the role of parent and romantic partner. Further, we predict that religiosity pathways will be evident above and beyond the connections between parent-child relationships and subsequent competencies in adult close relationships previously identified by Conger et al. (2000). We now turn to a more thorough review of the literature supporting all of the hypothesized pathways in our conceptual model.

Evidence for the Intergenerational Continuity of Religiosity

Nearly three-quarters of adolescents report somewhat similar or very similar religious beliefs as their parents (Smith & Denton, 2005). Indeed, research has demonstrated strong patterns of intergenerational continuity in religiosity consistent with path b_1 in Figure 1 (Bao, Whitbeck, Hoyt, & Conger, 1999; Bengtson, Copen, Putney, & Silverstein, 2009; King & Furrow, 2004; Myers, 1996; Pearce & Thornton, 2007; Petts, 2009), with most adults remaining in the religious affiliation or denomination of their childhood (Pew Research Center, 2009). Religious parents often strive to transmit religious beliefs and behaviors to their children, and most denominations guide parenting attitudes and practices and offer opportunities for parents and children to participate in communal activities with other families (Hyde, 1990; King & Furrow, 2004; Mahoney, Pargament, Tarakeshwar, & Swank, 2001; Smith, 2003; Wilcox, 2004). Accordingly, we expect that religious beliefs and practices will be passed from parents to children and will therefore show intergenerational continuity.

To be sure, children with religious parents are more likely to attend church and participate in religious activities during adolescence and we predict this will carry over into adulthood, as indicated by path b_2 in Figure 1. The family socialization of religious beliefs and behaviors occurs in several different ways. One of the most common predictors of children's religiosity has been the frequency of parents' church attendance (Bader & Desmond, 2006; Bao et al., 1999; Day et al., 2009; Pearce & Thornton, 2007; Zhai, Ellison, Glenn, & Marquardt, 2007). Other studies have shown that the centrality or salience of religious beliefs is also important. For example, Bader and Desmond (2006) found that adolescents were most likely to attend church when their parents attended church *and* believed that religion was important. If parents attended church frequently but did not find religion to be important, the youth did not think religion was important. Conversely, if parents attended church infrequently but thought religion was important, the adolescents were more likely to attend church and to find religion important. Thus there is a reasonably strong basis for the prediction of intergenerational consistency in religious values, attitudes, and practices – what we call religiosity.

We should emphasize that religiosity is a construct involving both extrinsic behaviors and intrinsic beliefs (Allport, 1950). Indeed, many studies use a composite measure of religiosity that assesses both church attendance and the importance of religion. For example, Gunnoe and Moore (2002) found that maternal religiosity, measured as a combination of church attendance and reported importance of religion, was a significant predictor of child's religiosity. Myers (1996) showed that parental religiosity predicted child religiosity, with religiosity in both generations measured as an index of several religious behaviors and the salience of beliefs. Petts (2009) indicated that higher levels of religiosity in the family of origin, measured as family church attendance and the importance of religious training, increased the likelihood that the youth would continue to attend church in young adulthood. We mirror this earlier research in the present study by assessing G1 and G2 religiosity as a multi-dimensional construct.

The Association between Religiosity and Later Competencies in Family Life

Beyond the intergenerational transmission of religiosity, we also predict that religiosity will be associated with interpersonal competencies in family relationships in two generations from the same families. To be sure, most religious traditions provide a set of clear norms and standards for behavior that are tied to broader spiritual and moral principles (i.e., most religions are proscriptive in the beliefs and behaviors expected of adherents). In particular, many religions “sanctify” parenting and family life to have spiritual significance and

importance (Mahoney et al., 1999; Mahoney, 2010), so it is plausible that religiosity will be associated with observable behaviors in the domains of parenting and romantic relationships. Moreover, participation in religious organizations exposes family members to a social network that supports certain values, such as increased commitment to marriage (Lambert & Dollahite, 2008), and prohibits other behaviors, such as divorce (Lehrer 2004; Levinger, 1976; Mahoney, 2010). Most mainstream Christian faiths encourage members to value and commit themselves to stable and supportive family relationships (Edgell, 2005; Mahoney, 2010). Thus, we propose that religiosity will be associated with positive interactions in family relationships as described by paths b_3 and b_5 (for the first generation) and paths b_4 and b_6 (for the second generation) in Figure 1. Consistent with our predictions about the association between religiosity and interpersonal competencies, several studies have shown that religiosity is correlated with greater marital satisfaction and commitment (Allgood, Harris, Skogrand, & Lee, 2009; Call & Heaton, 1997; Myers, 2006; Sullivan, 2001; Wolfinger & Wilcox, 2008), lower marital conflict (Brody, Stoneman, Flor, & McCrory, 1994; Mahoney et al., 1999), less divorce (Booth et al., 1995; Brown, Orbach, & Bauermeister, 2008), and less infidelity (Atkins & Kessel, 2008). There is also evidence for the implied causal ordering in Figure 1. For instance, a meta-analysis by Mahoney and colleagues (2001) demonstrated that church attendance did not decline after divorce; however, low attendance predicted divorce and high attendance was associated with lower risk for divorce. Thus, there are indications that religiosity promotes more stable and satisfying marital relationships more so than the reverse. We should also acknowledge that more complicated associations between religiosity and family processes are possible. For example, Booth and colleagues (1995) found a reciprocal relationship between marital happiness and church attendance. They showed that increases in church attendance predicted greater happiness and higher levels of happiness predicted increased church attendance. The findings of all these studies, however, are consistent with the proposition that religiosity appears to enhance the quality of marital relationships. Thus, we believe that there is a good empirical, as well as theoretical, basis for the pathways linking religiosity to positive romantic interactions as depicted in Figure 1.

In addition to the quality of romantic relationships, religiosity also has been associated with more positive parenting practices (see paths b_5 and b_6 in Figure 1). Religious parents appear to show more warmth and affection toward their children and are less harsh or inconsistent in their parenting than less religious parents (Brody et al., 1994; Gunnoe et al., 1999; Simons, Simons, Lin, & Conger, 2004). For example, Bartkowski and Xu (2000) found that fathers who attended church more frequently were more likely to hug and praise their children, and Wilcox (2002) demonstrated that fathers who attended church were more involved in one-on-one activities with their children. Duriez, Soenens, Neyrinck, and Vansteenkiste (2009) found that religious parents were more likely to emphasize obedience and conformity, which, in turn, led to higher levels of parental regulation and monitoring. Several studies (Pearce & Axinn, 1998; Snider, Clements, & Vazsonyi, 2004; Stokes & Regnerus, 2009) have also shown that religious parents are evaluated by their children as more positive and more effective. These findings suggest that religiosity may be associated with more supportive parenting, although many of the studies rely on self- and child-reports of parenting quality rather than independent observations of parent-child interactions. It will be important to determine if earlier findings will be corroborated when examining observable patterns of interactions between parents and children as we do in the present report.

Several of the pathways in Figure 1 reflect previous theoretical and empirical findings from this research group. Given that these pathways are not the novel contributions of the present work, we will only summarize the logic for these pathways and provide associated references. None of our previous studies, however, have addressed the role of religiosity in

the processes outlined in Figure 1. One connection reflected in the figure concerns the association between marital interactions and parenting by G1 mothers and fathers (path b_9). This proposal stems directly from the Family Stress Model proposed by Conger and his colleagues (see Conger et al., 1992). This perspective argues that marital distress disrupts effective parenting, whereas happy and satisfying marriages facilitate supportive parent-child interactions. Likewise, previous research from the current project as well as other studies has shown that parenting quality is transmitted across generations (Belsky et al., 2005; Conger et al., 2003; Neppl et al., 2009) and thus path b_7 is included in Figure 1.

Figure 1 also reflects previous work from the Family Transitions Project pointing to an association between experiences in the family of origin, particularly parent-child interactions, and subsequent competencies in early adult romantic relationships (Conger et al., 2000), shown as path b_{10} in Figure 1. At the same time, we are also aware of research demonstrating a direct association between G1 and G2 romantic relationship quality via modeling of the interparental relationship (e.g., Amato & Booth, 2001); thus, we include path b_8 in Figure 1. We should note, however, that findings from the Family Transitions Project (e.g., Conger et al., 2000; Donnellan, Larsen-Rife, & Conger, 2005) have not found such a direct link in analyses that also include parent-child interactions. These kinds of results have been interpreted as support for the argument that parent-child interactions mediate a considerable amount of the connection between parental marital functioning and subsequent G2 competencies in romantic relationships. Nonetheless, this is an unresolved issue and we include path b_8 in Figure 1 in the interest of acknowledging the ongoing discussions about the myriad pathways linking relationship processes in the family of origin with subsequent behaviors in adult romantic relationships.

It also is important to emphasize that we conceptualize religiosity as a factor that contributes to interpersonal competencies above and beyond parent-child interactions in the family of origin. For this reason the conceptual model proposes independent pathways from G2 religiosity in adolescence to subsequent interactions in romantic relationships and parenting in adulthood. More specifically, we conceptualize religiosity as an enduring resource for individuals that helps promote their interpersonal competencies. This type of personal characteristic is the flip-side of the kinds of individual difference attributes that Karney and Bradbury (1995) identified as enduring vulnerabilities for relationship stability and quality. In other words, we propose that religiosity is a personal characteristic that develops during childhood and adolescence and contributes to positive interpersonal behaviors in adulthood above and beyond the types of interactions experienced in the family of origin.

The Present Investigation

Based on the literature just reviewed, we test predictions from the conceptual model in Figure 1. The data we use to evaluate these hypotheses come from a 20-year, multi-informant study that emphasizes actual observations of family interactions. Data from this investigation provide a rare opportunity to examine the association between religiosity and later competencies in family life using independent reports from multiple informants and prospective assessment of study variables over a significant period of time. These aspects of the study remedy some of the limitations of earlier research that have evaluated the role of religion in family relationships. For example, in her review of 184 studies Mahoney (2010) called for research using observational data, as well as longitudinal designs, to help overcome selection biases inherent in self-reported data. The methodological features of the current study are therefore consistent with recommendations from Mahoney (2010) and others in this area (e.g., Bridges & Moore, 2002; Mahoney, 2010; Mahoney et al., 2001; Sullivan, 2001). For instance, to our knowledge only one study (Sullivan 2001) has used observational data to assess the association between religiosity and communication

behaviors among newlywed couples. Simply put, we believe that this study extends earlier research both through the conceptual advances previously outlined and by addressing important methodological limitations in earlier research.

In terms of methodology, this study makes several contributions. First, because of the study design, we examine the hypothesized processes in a fashion that overcomes reporter limitations. Most research in this field has relied on a single informant to assess the religiosity of both parents and children in the same family. This is problematic because estimates of associations among measures are inflated when only one reporter provides information about family members' beliefs and family processes, a problem that is further exacerbated by retrospective reporting (e.g., Boyatzis, 2006; Hardy, White, Zhang, & Ruchty, 2011; Meyers, 1996). For example, a highly religious adult may recall stronger religious beliefs of his or her own parents during childhood than actually existed. Additionally, many existing studies have been limited to mother report alone (e.g., Gunnoe & Moore, 2002; Pearce & Axinn, 1998; Pearce & Thornton, 2007; Thornton, Axinn, & Hill, 1992), which neglects the role that both parents play in the religious socialization of their children. The present investigation addresses the limitation of single informant data by using different reporters for the theoretical constructs in the conceptual model (Figure 1). To avoid the biases inherent in retrospective reports, we employ prospective data collected over a 20-year period to evaluate the conceptual model.

Second, we use observational data to measure positive relationship interactions¹ and parenting. When reporting on their own behaviors, people may underestimate their own hostility or negative behaviors because such behaviors are considered socially unacceptable (Cui, Lorenz, Conger, Melby, & Bryant, 2005). Additionally, it may be the case that more religious people tend to see their relationships as more positive and supportive than they actually are. For example, religions typically place a high value on marriage and thus such beliefs may lead people to align their perceptions of their romantic relationship with the prescriptions of their religious beliefs. To overcome this concern over shared method variance we use observer ratings as an independent source of information about G1 and G2 behaviors.

Third, although many studies consider the role of religion in marriage, very few have examined associations between religiosity and romantic relationship quality outside of marriage. Several studies have examined the role of religion in decisions to cohabit (e.g. Lehrer, 2004; Thornton et al., 1992), form a family (e.g. Eggebeen & Dew, 2009), and engage in sexual behaviors (i.e. Uecker, 2008), but only a handful of studies (e.g., Ellison, Burdette, & Wilcox, 2010) have included both married and cohabitating couples when examining the associations between religiosity and romantic relationship quality. This is a major gap in the literature given the high rates of cohabitation in the United States (Goodwin, Mosher, & Chandra, 2010). The present study is positioned to make a substantial contribution to the literature by including both married and cohabitating couples in the analyses.

Fourth, earlier studies have oftentimes neglected critical control variables in analyses. To ascertain whether any of the relationships predicted by the conceptual model result from other social or background characteristics, we control for the possible effects of gender, family income, education level, religious affiliation, and personality. Past evidence suggests that several of these characteristics may be related to religiosity, romantic relationship interactions, and parenting (e.g. Bao et al., 1999; McCullough & Willoughby, 2009;

¹Throughout this paper, we use the term "interactions" to refer to the reciprocal behaviors of dyads (romantic partners or parent-child). We are not referring to a statistical, multiplicative interaction.

Milevsky & Leh, 2008; Myers, 1996; Schwadel, McCarthy, & Nelsen, 2009). Further, previous research has shown that intergenerational transmission of religiosity often varies by gender of parent and child (see Bao et al., 1999; Boyatzis, 2006; King, Elder, & Whitbeck, 1997; Wilcox, 2002) and that parent denomination has varying effects on child outcomes (e.g., Eggebeen & Dew, 2009; Wilcox, 2002; Zhai et al., 2007). Lastly, several studies have shown a strong relationship between religiosity and personality attributes, specifically the traits of agreeableness and conscientiousness (see McCullough & Willoughby, 2009). These findings raise the possibility that individuals with certain dispositions are more likely to be religious and more likely to experience positive developmental outcomes, perhaps even to the point that the zero-order association between religiosity and positive family functioning is spurious. We control for these personality characteristics to address this possibility.

Finally, this study also extends earlier research by evaluating the relationship between religiosity and family life during G2 adolescence and young adulthood. Examination of this developmental period focuses on a time when values and identities are being formed, thinking processes are changing, autonomy is being sought, and individuals prepare to assume adult roles, specifically the roles of romantic partner and parent (Arnett, 2000; Koenig, McGue, & Iacono, 2008). Thus, the current report extends earlier work (e.g., Arnett, 2000; Thornton et al, 1992; Uecker, Regenerus, & Vaaler, 2007) on the antecedents of development during this seemingly critical stage in the life course.

Method

Participants and Procedures

Data come from the Family Transitions Project (FTP), a longitudinal study of adolescent youth and their families (Conger & Conger, 2002; Conger & Elder, 1994). Although the FTP includes youth from both single- and two-parent families, we focus on the two-parent families in order to evaluate the role of the G1 interparental relationship, which is a central part of the theoretical model. The study of these two-parent families began in 1989 as an examination of family economic stress ($N = 451$). Participants were recruited from public and private schools in eight rural Iowa counties. Schools in communities with fewer than 6,500 residents provided names and addresses of seventh grade students and their parents. Eligible families were sent a letter explaining the project and then were contacted via telephone and asked to participate. The initial recruitment rate was 78%. Participants included G2 adolescents (236 females, 215 males), their G1 parents, and a sibling within four years of age. G2 was in seventh grade (M age = 13.2 years) when the study began, and G1s were in their late 30s and early 40s (G1 father M age = 40.4 years; G1 mother M age = 38.2 years). Because at the beginning of the study almost all families in rural Iowa were of European descent, all of the participants were Caucasian.

Throughout the early years of the study (1989–1994), trained interviewers visited each family annually to administer questionnaires and videotape interactions among family members (see Conger & Conger, 2002, for a more detailed description of the study). In the present analyses, we use observer ratings from two 30-minute videotaped tasks: a parent-child discussion task during which G1s and G2s engaged in a conversation about family rules, events, and problems, and a task in which G1 mothers and fathers discussed childrearing, employment, and other life events. Trained observers rated these interactions using the Iowa Family Interaction Rating Scales (Melby & Conger, 2001). The project observers were staff members who had received training on rating family interactions and specialized in coding one of the interaction tasks. Different observers rated the parents during the different years of assessment. Before observing tapes, coders had to independently rate pre-coded interaction tasks and achieve at least 90% agreement with that standard. For purposes of assessing inter-observer reliability, 25% of the tasks were

randomly selected to be observed and rated by a second observer. Because ratings are generated by both a primary coder and a reliability coder who are selected at random to score any particular interaction between family members, the ratings of the primary and reliability coders can be treated as randomly selected items from a larger pool of possible items related to a specific type of behavior. To determine inter-observer agreement on this randomly selected set of items, an alpha coefficient is computed in the usual way to determine the internal consistency of the resulting scale. A high alpha (.80 or higher) indicates high agreement among the coders viewing the taped interactions; a low alpha indicates low inter-observer agreement.

Beginning in 1995, interviewers visited G2s biennially to administer questionnaires and to videotape a 25-minute discussion task with the G2 adult and his or her romantic partner that was essentially the same as that used for G1 interparental interactions. The study was expanded in 1997 to include G2's first-born child (G3). For G3 assessments, G2 completed questionnaires and participated with G3 in videotaped interaction tasks. Observational codes derived from a "clean-up" task were used for this analysis. This task followed a segment during which the child played with an interviewer; the interviewer then dumped out all the toys before instructing the parent that the child needed to clean up the toys. The 5–10 minute task created a stressful yet familiar environment for both G2 and G3, resulting in a measure of how well the parent handled the stress and how responsive the child was to the parent's directions.

The present analyses focus on G1 and G2 participants. When the study began in 1989, the majority of the G1s identified as Mainline Protestant (61% of G1 fathers and 64% of G1 mothers) or Catholic (18% of G1 fathers and 19% of G1 mothers), and only 8% of G1 fathers and 3% of G1 mothers indicated no affiliation. At the first wave of analysis (1991), 23% of G1 fathers and 18% of G1 mothers held a bachelor's degree or higher. The mean G1 per capita income was \$7,939 in 1991.

To assess G2 romantic relationship interactions, we use time-shifted data such that the G2 interactions were measured at the first wave G2 participated in the study with a spouse or cohabiting partner ($n=446$; G2 M age = 23.3 years; partner M age = 24.5 years). Thus the assessment point for G2 romantic relationship interactions ranged in time from 1995 to 2007, and 56.1% of the G2s were married to their partner at the time of assessment. To maximize the sample size for assessing G2 positive parenting, we use data from the first wave G3 participated in the study ($n=279$; G3 M age = 2.2 years; G2 M age = 26.1 years). As such, the assessment of G2 parenting measures ranged in time from 1997 to 2006.

Measures

Religiosity—We use three variables to construct latent measures of G1 and G2 religiosity. Respondents were asked about the importance of religious or spiritual beliefs in their day-to-day lives (1 = *not at all important*, 4 = *very important*) and their perceptions of the importance of being a religious person (1 = *not at all important*, 5 = *extremely important*); these two variables indicate subjective feelings and commitments to religion and were used as two separate indicators of the religiosity latent variable. The frequency of church attendance (1 = *never*, 4 = *once a week or more*) involves religious behavior and is a commonly used measure in prior research. G1 variables were collected in 1991, when G2s averaged 15 years of age; G1 mother and father responses were averaged for each variable ($M=3.25$, $SD=.65$ for importance; $M=3.64$, $SD=.82$ for identity; $M=3.15$, $SD=.97$ for attendance) to create the three indicators of the latent measure of G1 religiosity ($\alpha=.85$; factor loadings for the three indicators range from .68 to .88).

G2 religiosity was assessed across three waves during adolescence (M age = 16.5 years; 1991, 1992, and 1994); a mean was computed across the waves for each variable ($M = 2.95$, $SD = .69$ for importance; $M = 3.58$, $SD = .94$ for identity; $M = 3.19$, $SD = .95$ for attendance) to create the three indicators of the latent measure of G2 religiosity ($\alpha = .85$; factor loadings range from .67 to .84). G2 religiosity during adulthood (M age = 21.1 years) was assessed in 1997 using identical measures ($M = 2.97$, $SD = .81$ for importance; $M = 3.54$, $SD = 1.13$ for identity; $M = 2.45$, $SD = .99$ for attendance; $\alpha = .85$; factor loadings range from .70 to .82).

Romantic relationship interactions—G1 marital interactions were assessed in 1991, 1992, and 1994 using the marital discussion task described earlier; observation scales from the three waves were combined for a measure of G1 marital interactions during G2 adolescence. These interactions include wife's behavior toward her husband and husband's behavior towards his wife. Because we are assessing intergenerational continuity, for G2 romantic relationship interactions only G2 behavior toward the romantic partner was assessed. However, G2 romantic relationship interactions were assessed using the same observation scales as G1 and were time-shifted, as previously described. Six observer ratings were used to assess positive interactions for both G1 and G2. A high score on the construct indicates high positivity and low anger or hostility. *Communication* (CO) is the ability to positively express oneself in a clear and appropriate way, while demonstrating consideration of the other person's view. *Prosocial* (PR) includes acts of helpfulness, sensitivity, and cooperation. *Assertiveness* (AR) is the ability to express oneself using a straightforward, non-threatening style. *Hostility* (HS, reverse scored) is angry, critical or rejecting behaviors toward the other person. *Antisocial* (AN, reverse scored) is self-centered behavior that shows defiance or lack of constraint. *Angry coercion* (AC, reverse scored) involves behaviors that are threatening or blaming. Each rating was scored on a nine-point scale, ranging from low (no evidence of the behavior) to high (the behavior is highly characteristic). Interobserver agreement was high (G1 $\alpha = .92$; G2 $\alpha = .93$).

Although we initially ran the models separately for positive (i.e. CO, PR, and AR) and harsh behaviors (i.e. HS, AN, and AC), the findings are essentially the same and differences between the hypothesized results were not statistically significant. That is, the results indicated that the negative and positive items represented the opposite ends of a single underlying continuum. Accordingly, the two sets of variables were combined into a single factor to represent positive romantic relationship interactions. Specifically, we randomly combined the positive-valence romantic relationship dimensions with the reverse-coded negative-valence romantic relationship dimensions into three parcels (Kishton & Widaman, 1994); the first parcel combined HS (reversed) and CO ($M = 6.04$, $SD = 1.14$ for G1; $M = 6.10$, $SD = 1.58$ for G2), the second parcel combined AN (reversed) and PR ($M = 5.35$, $SD = 1.06$ for G1; $M = 5.60$, $SD = 1.58$ for G2), and the third parcel combined AC (reversed) and AR ($M = 6.46$, $SD = .85$ for G1; $M = 6.47$, $SD = 1.44$ for G2). Intraclass correlations (η_C) were moderate to high across all parcels (η_C ranged from .69 to .87, with an average of .82). Parcels had adequate internal consistency at each time point (average α of .63). Given they are each based on only two items from different raters, we believe that these numbers reflect adequate reliability (Cortina, 1993), despite being lower than the traditional standard value of .70. Standardized factor loadings for G1 positive marital interactions ranged from .87 to .96, and factor loadings for G2 positive romantic interactions ranged from .83 to .97. Combining warmth and harshness into a single model also reduced the number of models tested and facilitated the presentation of results.

Positive parenting—G1 parenting ($\alpha = .94$; factor loadings range from .91 to .97) was derived from the parent-child discussion task described earlier. An average score was computed across three time points during G2 adolescence (1991, 1992, and 1994). We

assessed G2 parenting ($\alpha = .96$; factor loadings range from .92 to .95) using data from the first assessment after G3 entered the study. For G1 and G2 parenting, the same observer ratings were used as the romantic relationship interactions described earlier, but with regard to behaviors toward the child. Codes reflecting warmth and hostility were combined for parenting data in the same manner that they were combined for romantic relationship data: HS (reversed) and CO ($M = 6.10$, $SD = 1.07$ for G1; $M = 6.11$, $SD = 1.48$ for G2), AN (reversed) and PR ($M = 5.82$, $SD = 1.08$ for G1; $M = 6.24$, $SD = 1.54$ for G2), and AC (reversed) and AR ($M = 6.50$, $SD = .89$ for G1; $M = 6.36$, $SD = 1.59$ for G2).

Control variables—Several control variables were used in the analyses: (a) G1 and G2 gender; (b) G1 per capita income in 1991, the sum of the family's wages, salaries, and other income, divided by the number of household members; (c) G1 education (a dummy variable for which 1=bachelor's degree or higher level of education in 1989 when the study began); (d) G1 religious affiliation (indexed with four dummy codes reflecting whether participants were Catholic, Conservative Protestant, Mainline Protestant, Other, and None), obtained from questionnaire data collected during the first assessment wave (1989) and coded using the religious classification scheme from Steensland et al. (2000); and (e) G2 personality, using two broad domains of the "Big Five" (e.g., John, Naumann, & Soto, 2008): agreeableness (traits that encompass cooperation and kindness) and conscientiousness (traits that encompass responsibility and dependability). G2 personality was assessed in 1991 and 1992 using the NEO-FFI (Costa & McCrae, 1985; 1 = strongly agree, 5 = strongly disagree). Higher scores indicate higher levels of these traits.

Results

Before running structural equation models (SEMs) we tested for significant mean differences in our three indicators of religiosity. In these preliminary analyses, we found evidence that G1 parents were more likely to consider religion important in their lives than did G2s in adulthood ($t(382) = 6.61$, $p < .001$, $r_{\text{effect size}} = .32$; Rosenthal, Rosnow, & Rubin, 1999). G1 parents were also more likely to attend church than G2s in adulthood ($t(382) = 13.87$, $p < .001$, $r_{\text{effect size}} = .58$). However, G1 and G2 were not significantly different in the degree to which they felt it important for them to be defined as a religious person ($t(381) = 1.54$, $p = .12$, $r_{\text{effect size}} = .08$). G2 religiosity declined significantly between adolescence and adulthood in terms of attendance ($t(410) = 15.59$, $p < .001$, $r_{\text{effect size}} = .61$), but not in terms of importance in everyday life ($t(410) = 0.26$, $p = .80$, $r_{\text{effect size}} = .01$) or importance of being a religious person ($t(409) = 1.16$, $p = .25$, $r_{\text{effect size}} = .06$).

To address our primary hypotheses, two SEMs were then estimated in Mplus (Muthén & Muthén, 2006) using full information maximum likelihood (FIML). FIML procedures are one of the most widely recommended approaches for dealing with missing data in longitudinal research (Allison, 2003; Arbuckle, 2003; Widaman, 2006). Due to overlap in the religiosity measures at each assessment, the residuals for each specific indicator (e.g., importance of beliefs) were allowed to correlate with each other across waves and reporters. In addition, the residuals between the three latent outcome variables were allowed to correlate. Model fit was evaluated using several commonly used fit indices (see Widaman & Thompson, 2003), including the chi-square (χ^2) test of exact fit, the comparative fit index (CFI), and the root mean square error of approximation (RMSEA). Although the evaluation of model fit in SEM is a contentious issue, we used the following conventions for judging adequate fit: CFI of .95 or greater and RMSEA values less than .06 (see Kashy, Donnellan, Ackerman, & Russell, 2009, p. 1137).

Preliminary analyses showed no significant differences between G2 males and females; therefore, we present results for the combined G2 sample. Further, the models were run

separately by G1 mother and G1 father but results did not differ by parent gender, thus we averaged across mother and father for each G1 latent variable in the SEM. We interpreted the size of the standardized regression coefficients using conventions associated with the interpretation of correlations: coefficients around .10 were considered small; coefficients around .30 were considered medium or moderate; and coefficients .50 were considered strong (see McCartney & Rosenthal, 2000).

Table 1 provides zero-order correlations (r) among study constructs. The correlations in Table 1 provide initial support for many of the predictions embodied in Figure 1. There was a strong association between the quality of the G1 marital relationship and G1 parenting ($r = .62$) and a moderate association between the quality of the G2 romantic relationship and G2 parenting ($r = .36$). G1 parenting was associated with both G2 adult romantic and parenting interactions. Finally, there were modest but significant associations between G1 religiosity and G2 positive parenting but there was no association between G1 religiosity and G2 positive romantic relationship interactions. The consistency between many of the correlations and theoretical expectations suggested that formal tests of the conceptual model would be appropriate.

Figure 2 provides the results for the tests of predictions from the conceptual model (Figure 1) for G2 romantic relationship interactions. The model had adequate fit ($\chi^2 = 335.56$, CFI = .97, RMSEA = .05). As seen in Figure 2 (and consistent with the zero-order correlations), G1 religiosity was strongly related to G2 adolescent religiosity ($\beta = .70$, $SE = .04$), which, in turn, predicted G2 religiosity in adulthood ($\beta = .80$, $SE = .03$). G1 religiosity predicted G1 positive marital interactions, and G2 religiosity during adolescence predicted G2 positive romantic relationship interactions in adulthood. There was no direct association between positive G1 marital interactions and positive G2 romantic relationship interactions. Rather, the findings were consistent with earlier reports from the FTP showing that G1 positive parenting predicted positive G2 romantic relationships and that the G1 marital effect may be indirect through positive parenting (Conger et al., 2000). In Figure 3, we find the same relationships across generations for religiosity. As expected, G1 religiosity predicted G1 parenting during G2 adolescence, and G1 parenting during G2 adolescence predicted later G2 positive parenting. Thus, the findings are consistent with the predictions in the conceptual model (Figure 1).

We also tested the indirect effects depicted in both figures for statistical significance. We calculated bootstrapped standard errors for all indirect paths consistent with contemporary recommendations for testing the significance of these pathways (MacKinnon, Fairchild, & Fritz, 2007; Shrout & Bolger, 2002). In both models, the indirect path from G1 religiosity to G2 religiosity in adulthood through G2 religiosity in adolescence was reliably different from zero ($\beta = .57$; 99% CI = .47 to .67). This finding is consistent with the idea that G2s carry forward their religious beliefs evident in adolescence into adulthood, beliefs that were strongly related to the beliefs and practices of their parents. Additionally, the indirect path in Figure 2 from G1 marital interactions to G2 romantic relationship interactions through G1 parenting was significant, which is consistent with previous work from this sample that indicates that G1 marital interactions are indirectly associated with G2 romantic relationship quality through G1 parenting (e.g., Conger et al., 2000; Donnellan et al., 2005). There also is an indirect path in Figure 2 from G1 religiosity to G2 romantic relationship interactions through G2 religiosity during adolescence. In Figure 3, G1 religiosity was indirectly related to G2 positive parenting through G1 parenting, as well as through G2 religiosity in adolescence. All in all, we found evidence consistent with the hypothesized model linking religiosity in the first generation to more positive family relationships during G2's adolescence and to G2 religiosity both as an adolescent and as an adult (an indirect effect). Moreover, G1 religiosity was indirectly associated with G2 positive romantic and parent

child relationships both through G2 religiosity and through G1 interpersonal competencies in family relationships.

Discussion

The current paper evaluated a theoretical model that incorporated religiosity into an existing conceptual framework for understanding the developmental antecedents of interpersonal competencies in close relationships. Existing studies suggest that religious attitudes, values, and practices are transmitted from parents to children (e.g. Bengtson et al., 2009; Hyde, 1990; Maccoby, 1992) and that religiosity is associated with behavior in romantic relationships and parenting practices (e.g. Algood et al., 2009; Mahoney et al., 1999; Pearce & Axinn, 1998). Accordingly, we conceptualized religiosity as an enduring resource that helps facilitate the development of positive family relationships across generations. To our knowledge no earlier study has assessed this type of integrative, development model in the evaluation of the connection between religiosity and family relationships. The results document both an impressive level of intergenerational consistency in religiosity and perhaps, more importantly, they suggest that religiosity is associated with interpersonal competencies in both generations that are relevant to critical family relationships involving romantic partners and children.

We believe three main findings are worth emphasizing. First, religiosity predicted positive marital and parenting interactions for both the G1 and G2 generations. Religiosity had a positive, independent effect on participants, as it was associated with more positive interactions between family members. Second, not only do we show these effects within generations, but we show them across generations. Parent religiosity in the first generation had a positive, indirect effect across generations, with G1 religiosity predicting higher quality G1 marital interactions and parenting behaviors, which, in turn, were positively associated with G2 competence in close relationships during the adult years (see Figures 2 and 3). In other words, not only did religious parents demonstrate more positive family functioning in the first generation, but their children also demonstrated more positive family functioning in the next generation. Third, G1 positive marital interactions had an indirect effect on G2 family competencies through their positive association with G1 positive parenting, which was subsequently associated with both G2 positive romantic relationship interactions (Figure 2) and G2 positive parenting (Figure 3). That is, G2s who experienced warm and supportive interactions with their parents, regardless of the quality of relationship between their parents, were observed to interact more positively with their partners and children in adulthood. We now place these results in the context of previous studies and further comment on their significance.

Consistent with prior work that has suggested an impressive degree of intergenerational consistency in religiosity (e.g. Bao, et al., 1999; Pearce & Thornton, 2007; Smith & Denton, 2005), we found that G1 religiosity was associated with G2 religiosity. Specifically, when G1 was religious during G2 adolescence, G2 demonstrated higher levels of religiosity in adulthood, an effect that can be traced through their mutual associations with G2 religiosity during adolescence. In short, children of religious parents appear to possess religious beliefs and practices during adolescence that are carried forth into adulthood. There appears to be a strong connection between religiosity in the family of origin and the beliefs and values of young adults.

Although there is earlier evidence that religiosity and competencies in family relationships are transmitted across generations, very little work has examined the developmental interplay of these constructs over time. That is, previous research has not considered the degree to which religiosity is part of an integrated developmental model involving

intergenerational continuities along with parental marital relationships and parent-child relationships in the family of origin. The current results support the notion that religiosity is a salient personal characteristic and enduring resource relevant for family relationships given that the associations for religiosity were found in the context of analyses that accounted for more general experiences in the family of origin (viz., observed parent-child interactions). Likewise, the results held when we introduced a suite of theoretically relevant control variables including broad personality attributes (agreeableness and conscientiousness), parent and child gender, family income, education level, and religious affiliation. In particular, we found that parent religiosity had a modest but significant association with higher levels of positive marital interactions. In addition, the youth's religiosity during adolescence was associated with more positive romantic relationship interactions in adulthood. Although these effects are small by current conventions, they are consistent across generations. It also is important that we examined this effect for both married and cohabitating G2 couples. Because religion has been shown to have a reciprocal relationship with cohabitation and marital decisions (Thornton et al., 1992), our results in Figure 2 could be viewed as a conservative estimate of the relationship between religion and romantic relationship interactions in the second generation. Similarly, higher levels of religiosity were related to more positive parenting in both generations. Thus, we found replicable evidence spanning two developmental contexts (the parenting of adolescents and the parenting of younger children) that individuals higher in religiosity engaged in more positive parenting interactions with their children. These findings add strength to previous work because we use self-reports of religiosity and observer ratings of parenting in both generations.

In addition to the novel findings with respect to religiosity, the current paper replicated previous results from this project using slightly different ways of identifying the latent variables and different waves of data. In particular, positive parenting in the first generation predicted both the quality of their children's romantic relationships in adulthood and the way their children interacted with their own children. Also consistent with prior work from this sample (Conger et al., 2000; Donnellan et al., 2005), G1 parent marital interactions were indirectly related to the youth's romantic relationship interactions in adulthood through their association with G1 parenting. Thus, there is consistent evidence that experiences in the family of origin are associated with later interpersonal competencies in adulthood, at least in this sample.

Confidence in the present findings is reinforced by the strong methodology employed in the research. Use of observational data as indicators of parenting behaviors and romantic relationship interactions reduced method variance biases produced by reliance on a single informant. Moreover, each family member independently reported his or her own religiosity and participants were assessed prospectively over time, which reduced memory or other biases and assured the correct temporal ordering from explanatory to outcome variables. Thus, using methodologically rigorous approaches to measuring variables and using temporal ordering to evaluate the G2 associations, the current results bolster the claim that there is a positive association between religiosity and family relationships.

Limitations

Despite notable strengths, there are limitations of the present work. A crucial point is that the present data are correlational and this places well known limitations on causal inference. Likewise, it is possible that alternative models could account for the present data beyond the model we specified and tested. There are also more specific limitations related to the current sample and measurement strategy. First, this is a single sample from a particular historical era that lacks racial, ethnic, and geographic diversity. The Midwest is more religious than many areas of the country (Kosmin & Keysar, 2009); therefore, these results may not

generalize beyond this predominantly white, Midwestern, and fairly homogenous sample. Given this rural background, it may be that religion has different effects for members of this population than for people who live in more urban or diverse environments. Likewise, the G2s in this study went through adolescence in the early 1990s and thus results may not generalize to more recent cohorts of adolescents in the first few decades of the 21st century who are seemingly less religious than previous cohorts (Pew Research Center, 2010).

Fortunately, we can compare the rates of religious participation for this sample with national trends. For example, the Pew Research Center (2010) reports that 36 percent of the US population aged 30–49 (the age range of G1 parents during the study period) attends religious services at least weekly. In our sample, 42.5 percent of parents reported attending religious services at least weekly during the G2s' adolescence, indicating that the G1 generation may have been more religious than more recent cohorts. However, when G2s were young adults only 20.9 percent reported attending church at least weekly, which is identical to the reported rate of attendance in the late 1990s for people in this generational cohort (born 1965 to 1980). Therefore, we have some reason to expect that the trends for the G2s are representative of their cohort, at least in church attendance. More importantly, we are hard pressed to think of reasons why the psychological processes and developmental considerations evaluated here will not apply, at least to some extent, to more recent cohorts.

A second limitation is that participants were primarily members of mainstream Christianity, and about 60% of the sample was mainline Protestant (e.g. Lutheran, Methodist). In this regard, our sample is clearly different from the national portrait, as the Pew Research Center (2010) reports that only 18% of the population is affiliated with mainline Protestant churches. Thus our findings may be biased in the direction of mainline Protestantism and may not apply to more fundamentalist or evangelical denominations or to non-Christian religious traditions. We controlled for religious affiliation in the analyses and found no indication that this altered pattern of results from those predicted by the theoretical model. Moreover, we should emphasize that our measure of religiosity was not tied to a particular tradition and instead asked about general behaviors and the psychological importance of religion regardless of denomination. Nevertheless, it may be that the religious values taught by the mainline denominations uniquely affect the quality of family relationships. Future research is needed to test the generalization of these findings to other religious traditions.

Also important, this analysis would have benefitted from expanded and alternative measures of religiosity that better capture differences in doctrine and the ways that religion is internalized among adherents. As Mahoney (2010) indicated in her review of the literature, work in this area would be strengthened by the use of specific constructs that measure the content and internalization of beliefs to examine nuanced manifestations of religion among families. Our measures of religiosity, however, are consistent with many other studies (e.g., Gunnoe and Moore, 2002; Milevsky & Leh, 2008; Simons et al., 2004) and were assessed identically at three time points. This strategy provides more reliable estimates of the underlying attributes than prior studies that primarily used cross-section research designs.

Finally, the theoretical model in this study is based primarily on the proposition that children learn about religion and family relationships from the values and behaviors demonstrated by their parents. Another hypothesis that the current study design does not allow us to test is that shared genes lead to similar behaviors and practices by both children and parents. Although we cannot directly evaluate this possibility with these data, McGuire (in press) recently reviewed the evidence for heritability in family interactions based on behavioral genetic research. She found that measures of family interaction based on observer ratings, as in the present study, demonstrate very little evidence of a genetic influence. These findings increase confidence that the reported findings do result from a process of social interaction.

Final Conclusions and Practical Implications

All in all, the results suggest that religiosity promotes competent family functioning across generations. Religiosity demonstrated strong intergenerational continuity and was positively associated with observable attributes of family relationships. In addition to the theoretical importance of embedding religiosity into a model of the developmental antecedents of interpersonal competencies, the current findings may have implications for programs designed to promote improved family functioning. For example, programs and therapeutic interventions intended to strengthen romantic or parent-child relationships might ask participants to consider their own values, including religious values, in attempts to foster better relationships. This strategy is very consistent with our proposal that religiosity may serve as an enduring resource for many families. In sum, the results reported here provided compelling support for the idea that religiosity is linked across generations and may be an important resource for fostering positive family relationships in multiple generations.

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Figure 1. Conceptual Model. Indicator 1 = Communication and Hostility (reverse coded); Indicator 2 = Assertiveness and Angry Coercions (reverse coded); Indicator 3 = Prosocial and Antisocial (reverse coded).

Figure 2.

The structural equation model predicting G2 romantic relationship interactions, controlling for G1 gender, G2 gender, G1 per capita income, G1 education, G1 religious affiliation, and G2 agreeableness and conscientiousness; standardized regression coefficients (standard errors); $\chi^2 = 335.56$, $p < .001$, $df = 172$, RMSEA = .046, CFI = .973; $N = 446$; * $p < .05$ ** $p < .01$ *** $p < .001$.

Figure 3.

The structural equation model predicting G2 positive parenting interactions, controlling for G1 gender, G2 gender, G1 per capita income, G1 education, G1 religious affiliation, and G2 agreeableness and conscientiousness; standardized regression coefficients (standard errors); $\chi^2 = 262.01$, $p < .001$, $df = 176$, $RMSEA = .042$, $CFI = .978$; $N = 279$; * $p < .05$ ** $p < .01$ *** $p < .001$.

Table 1

Correlations of Major Study Constructs

	1	2	3	4	5	6	7
1. G1 Religiosity	--						
2. G2 Religiosity during Adolescence	.71***	--					
3. G2 Religiosity in Adulthood	.58***	.84***	--				
4. G1 Positive Marital Interactions	.17**	.10 [‡]	.09 [‡]	--			
5. G2 Positive Romantic Relationship Interactions	.08	.19**	.11 [‡]	.26***	--		
6. G1 Positive Parenting	.23***	.17**	.11*	.62***	.36***	--	
7. G2 Positive Parenting	.17*	.30***	.26***	.21**	.36***	.33***	--

[‡]
p < .10*
p < .05**
p < .01***
p < .001