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## Intergenerational continuity in economic hardship, parental positivity, and positive parenting: The association with child behavior

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### Abstract

The current study examined intergenerational continuity in economic hardship, parental positivity, and positive parenting across generations based on both the Family Stress Model and the Family Resilience Framework. The study included 220 generation one (G1) parents, their target youth (generation two: G2) who participated from adolescence through adulthood, and the target's child (generation three: G3). Assessments included observational and self-report measures. Results indicated that G1 economic hardship negatively influenced both G1 positivity and G1 positive parenting. Similarly, G2 economic hardship was negatively related to both G2 positivity and G2 positive parenting which, in turn, was associated with G3 positive behavior to G2. For both G1 and G2, parental positivity mediated the association between economic hardship and positive parenting. G2 economic hardship was indirectly related to G3 positive behavior through G2 parental positivity and positive parenting. An important finding is that the intergenerational continuity of economic hardship, positivity, and positive parenting were transmitted from G1 to G2. Results suggest that even in times of economic adversity, parental positivity and positive parenting were transmitted from G1 parents to their G2 youth during adulthood. Such continuity seems to influence the positive behavior of the G3 children.

### Keywords

intergenerational continuity; economic hardship; parental positivity; positive parenting; child positive behavior

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Economic deprivation, whether the result of chronic poverty (Duncan & Brooks-Gunn, 2000) or a sudden economic downturn (Elder, Conger, Foster, & Ardel, 1992) can negatively impact individuals and their families. Indeed, parents may mediate the association between economic adversity and poor child outcomes. According to the Family Stress Model (FSM), economic hardship leads to emotional problems such as depression and

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anxiety, which can result in marital conflict, hostile parenting behaviors, and negative child outcomes (Conger, Conger, & Martin, 2010). However, while there is an association between economic adversity and negative family functioning (Duncan & Brooks-Gunn, 2000), some families adapt in spite of experiencing economic hardship. That is, there may be protective individual or family characteristics that help foster resilience in families who experience economic stress. Thus, the present study integrates the FSM with perspectives from the resilience literature to examine the relationship among economic hardship, positive family processes, and child outcomes across three generations.

Researchers have begun to examine possible reasons why some people may be more resilient to the effects of economic adversity (Bonanno, 2004; Masten, 2001, Walsh, 2012). The term resilience often refers to the ability to rebound from life challenges and involves processes that help foster positive adaptation during times of adversity (Masten, Cutuli, Herbers, & Reed, 2009). For example, it may be that personal characteristics help facilitate resilience to the negative impact of economic hardship (Donnellan, Conger, McAdams, & Neopl, 2009; Taylor, Larsen-Rife, Conger, Widaman, & Cutrona, 2010). Earlier findings from the longitudinal study used for the present analyses demonstrated that resilience to economic adversity was facilitated by marital support and a sense of mastery (Conger & Conger, 2002). Indeed, the positive psychology movement (Seligman & Csikszentmihalyi, 2000) has renewed interest in positive outcomes that emphasize individual qualities that help foster adaptation (Masten et al., 2009). As such, there are personal characteristics such as the disposition to approach life with a positive outlook, optimism, self-efficacy, self-esteem, and a general sense of life satisfaction that seem to be related to health, well-being, and overall life achievement (Caprara, et al., 2009; Caprara, Alessandri, Colaiaco, & Zuffiano, 2013). This cluster of related attributes has been called positivity and is defined as “the tendency to view life and experiences with a positive outlook” (Caprara et al, 2012, p.701). Caprara et al. (2009) demonstrated that these positive attributes may be explained by both genetic factors and the environment. Recently, Neopl, Jeon, Schofield, and Donnellan (2015) evaluated how parental positivity can be incorporated into the FSM to explain resilience to disrupted family processes in the face of economic distress. They concluded that personal characteristics linked to a positive outlook may foster nurturant parenting, even in times of economic strain. That is, parents who communicate, listen, and are supportive to their child, positively influence adolescent development into emerging adulthood.

Despite this evidence, few studies have evaluated how economic hardship and positive family processes are related to child development over time (Castro-Schilo, Taylor, Ferrer, Robins, Conger, & Widaman, 2013). Thus, the current study expands the work of Neopl et al. (2015) by investigating the association between economic hardship, parental positivity, and positive parenting across three generations. That is, we integrate aspects of the FSM and a resilience framework to evaluate the intergenerational transmission of economic hardship, parental positivity, and positive parenting from generation one (G1) parents during generation two's (G2) adolescence to G2 parents in adulthood. Furthermore, we examine how this continuity is associated with generation three (G3) child positive behavior toward their G2 parent. Finally, we investigate the mediating pathways through which economic hardship influences child positive behavior. This provides an important next step in understanding how resiliency factors such as positivity and positive parenting styles can be

transmitted across generations to impact child development to those families affected by economic adversity.

## Economic Hardship and the Family

Economic hardship places families at risk for multiple disadvantages that are associated with problems in child adjustment (Conger, et al., 2010; Duncan & Brooks-Gunn, 2000). According to the Family Stress Model (FSM; Conger & Conger, 2002), economic hardship is linked to economic pressure which, in turn, leads to an increased risk for parental distress. Parents who are distressed by their economic problems are unable to engage in supportive parenting practices such as being warm and involved with their children. These impaired parenting behaviors, in turn, disrupt developmental outcomes for children. Similarly, Santiago, Wadsworth, and Stump (2011) found that economic stress leads to psychological problems such as anxiety and depression, as well as relationship problems for both parents and children. Living under economic strain may also affect children's personality in that they may be more likely to be high on negative emotionality and low on conscientiousness (Kiernan & Mensah, 2009; Sektnan, McClelland, Acock, & Morrison, 2011). In addition, studies show that children growing up under conditions of economic hardship are at an increased risk for behavioral problems (Evans, 2002) and a decrease in psychosocial adjustment (Bolger, Patterson, Thompson, & Kupersmidt, 1995). Taken together, these studies suggest that children may be especially vulnerable to disrupted family processes when faced with economic difficulties.

In addition to the negative impact of economic hardship, there is evidence that economic adversity may persist across generations. For example, in the same longitudinal study used for the present analyses, K. Conger et al. (2012) examined factors proposed to explain the connection between economic hardship and its consequences on development across three generations. Results demonstrated that G1 economic hardship diminished G2 relationships with peers, extracurricular activities, positive personality as well as G1 parental investments in G2's college. This, in turn, affected G2 adult educational attainment and eventual economic hardship, which led to adverse consequences for G3. While G2 educational attainment reduced G2's economic hardship in adulthood, G1 economic hardship was directly associated with G2 economic hardship. Indeed, the intergenerational correlation of economic status from parent to offspring is .60 (Mazumder, 2005). One explanation for this association is that parental income and wealth along with race and educational attainment can strongly predict their children's economic status (Bowles, Gintis, & Osborne, 2001). Moreover, financial behaviors and money management skills may be transmitted across generations (Allen et al., 2007). That is, parents may transmit skills, knowledge, and character traits that help determine their child's potential work earnings as an adult (Mayer & Lopoo, 2004). Therefore, G2 adults who grew up in an economically disadvantaged household may face their own financial hardships as adults.

Nevertheless, families may vary in their response to economic hardship (Conger & Conger, 2002). It may be that personal characteristics help foster supportive parenting in the face of adversity. For example, Taylor, et al. (2012) found that mothers who were optimistic had fewer internalizing problems and were more nurturing parents, which led to positive changes

in their child's social development. Nepl et al. (2015) found that economic pressure was indirectly associated with adolescent positivity through parenting and parental positivity. Specifically, economic pressure was negatively associated with parent positivity, parental positivity was associated with positive parenting, and both positivity and parenting during early adolescence were related to late adolescent positivity, as well as positivity during emerging adulthood. Taken together, there is evidence to suggest that positive parental disposition and positive parenting may influence similar positive dispositions in their children, even into adulthood.

## The Role of Positivity and Positive Parenting

Personal traits and perspectives of self and others play an important role in the process of resilience to economic hardship (Taylor et al., 2012). Indeed, there are certain attributes consistently connected to the concept of resilience in the literature. These include a person's positive self-concept (i.e., high self-esteem and self-efficacy), hope and optimism, life-satisfaction and positive social skills (i.e., positive outlook or effective communicative skills) (Wright, Masten, & Narayan, 2013). Specifically, Caprara, Steca, Gerbino, Paciello, Vecchio (2006) found that self-efficacy beliefs determined positive thinking and happiness which, in turn, promoted a positive outlook on the present and into the future. Furthermore, positivity was based on multiple dimensions of characteristics related to self-esteem, life satisfaction, optimism, positive affect, and the big Five Personality Traits (Caprara et al., 2012).

Having these attributes has been associated with harmonious inter-parental relationships, close parent-child relationships, positive sibling relationships, and supportive connections with extended family (Wright et al., 2013). In addition, these positive perspectives may be important factors when considering how economic conditions are linked with individual development and family functioning (Linver, Brooks-Gunn, & Kohen 2002; Conger, et al., 2010). There is evidence to suggest that children who have parents with a positive outlook on life may be more likely to develop a similar positive disposition themselves. This positivity may help children adapt to exposure to stressors and challenges in the future (Nepl, et al., 2015).

In the same way that positive characteristics may be transferred from parent to child, there is evidence that positive parenting may be transmitted across generation. That is, those who experience positive parenting may be more likely to be positive during interactions with their own children (Belsky et al., 2005; Chen & Kaplan, 2001; Nepl et al., 2009). Similarly, children raised by positive parents may be more likely to demonstrate greater positive developmental outcomes. For example, Brody, Murry, Kim, and Brown (2002) found an association between mothers who had high self-esteem, an optimistic outlook, and competence-promoting parenting, with child cognitive and social competence. Indeed, there is ample evidence to suggest that positive parenting which includes parental warmth and positive expression has a long term impact on child positive development (Lengua, Honorado, & Bush, 2007).

While research has shown that economic hardship, positive characteristics, and positive parenting may be transmitted across generations, few studies have examined how these constructs impact G3 development. Indeed, there is limited research on the association between economic hardship and positivity across generations. Even though prior findings from the study used for the present analyses demonstrated that intergenerational continuity of economic hardship from G1 to G2 impacted G3 outcomes (K. Conger et al., 2012), and G1 economic pressure and parental positivity led to positivity for G2s (Neopl et al., 2015), both studies involved older children rather than development of children at younger ages. Therefore, the current study contributes to this literature by examining the continuity of economic hardship, parental positivity, and positive parenting across generations to assess the impact of these associations on child positive behavior during the preschool years. This is particularly important as young children may be especially sensitive to the impact of negative economic conditions (Dearing et al., 2001). Moreover, K. Conger et al. (2012) examined the relation between economic hardship and education. Thus, the present study extends this work by examining economic hardship and positive behavior. For both positive parenting and G3 positive behavior to G2, this was defined as being warm, prosocial, and engaging in effective communication.

## The Present Investigation

The present investigation evaluated how economic hardship and positive characteristics may impact development across generations. We used data from a two-decade longitudinal study of a cohort of focal adolescents and their families followed from adolescence to adulthood. We measured G1 economic hardship, positivity, and observed positive parenting when G2 were adolescents. G2 economic hardship, positivity, and observed positive parenting were assessed during adulthood, and G3 positive behavior to G2 was assessed during the preschool years. This allows us to test longitudinal relations between parenting and child outcomes. This is an important feature of the current study as relatively few studies have tested how the continuity of economic hardship, positivity, and positive parenting impacts early G3 development.

Based on the conceptual model depicted in Figure 1, we tested the prediction that economic hardship, positivity as a personal characteristic, and positive parenting behavior will be transmitted from one generation to the next. We also tested the direct impact of G2 economic hardship, G2 positivity, and G2 positive parenting on G3 positive behavior to G2, while taking into account the continuity of such behavior from G1 to G2 (see Figure 1). We expected that G1 economic hardship, positivity, and positive parenting would be directly related to G2 economic hardship, positivity, and positive parenting to G3. We also expected that economic hardship would be negatively related to parental positivity and positive parenting for both G1 and G2. Finally, positivity would be related to positive parenting with G2 economic hardship, positivity, and positive parenting being directly associated with G3 positive behavior to G2.

In addition to examining direct relations, we also tested mediating pathways from economic hardship to child behavior. For example, within generations, we tested the indirect impact of parental positivity on the association between economic hardship and positive parenting.

Across generations, we tested the indirect pathway from G1 economic hardship to G2 positivity, as well as the pathway from G1 economic hardship to G2 positive parenting. We also tested the mediating pathway from G1 economic hardship to G3 positive behavior (see Figure 1). We expected that parental positivity would mediate the association between economic hardship and positive parenting. Finally, across generations, parental positivity and positive parenting would mediate the relation between G1 economic hardship and G3 positive behavior to G2.

To provide a more rigorous test, the present investigation controlled for parent education level for both G1 and G2, and gender and age for G2 and G3. Previous research shows that these control variables may be related to parenting behaviors. For example, parent education is related to both harsh and positive parenting (Davis-Kean, 2005), and younger mothers have an increased chance of negative life outcomes (Pogarsky, Thornberry, & Lizotte, 2006). In terms of child age, mothers with older compared to younger children showed less effective parenting and older sons showed an increase in antisocial behavior (Bank, Forgatch, Patterson, & Fetrow, 1993).

## Method

### Participants

The present study used data from the Family Transitions Project (FTP) which is a longitudinal study of 559 target youth and their families. The FTP includes two earlier studies: The Iowa Youth and Families Project (IYFP) and the Iowa Single Parent Project (ISPP). In the IYFP, data was collected annually from 451 two-parent families living in 8 rural counties in Iowa from 1989 to 1992. Participants included the target adolescent (G2), their parents (G1), and a sibling within 4 years of age of the target youth. When interviewed in 1989, the G2 target adolescent was in seventh grade (M age = 12.7 years; 236 females). Due to the rural nature of the sample, all participants were Caucasian and were primarily lower middle- or middle-class. G1 parents averaged 13 years of schooling and had a median family income of \$33,700. Families ranged in size from four to thirteen members, with an average size of 4.94 members. Fathers' average age was 40, while mothers' was 38. The ISPP began in 1991 when the target adolescent was in 9<sup>th</sup> grade which is the same year of school for the IYFP cohort. Participants from each family consisted of a target adolescent child (G2), their single-parent mother (G1), and a sibling within 4 years of age of the target adolescent ( $N=108$ ). Telephone screeners identified families headed by single mothers who had divorced within 2 years prior to the start of the study. The participants were Caucasian, and lower middle- or middle-class, single-parent mother families that lived in the same general geographic area as the IYFP families. Measures and procedures for the ISPP were identical with IYFP; however, ISPP fathers did not participate in the in-home interviews. These families participated in three waves of data collection (1991, 1992, and 1993).

In 1994, families from the ISPP and IYFP were combined to create the FTP. At that time, G2 target adolescents from both studies were in 12<sup>th</sup> grade and participated in the study with their G1 parents as they had during the earlier years of adolescence. Beginning in 1995, the G2 target youth (1 year after completing high school) participated in data collection with their romantic partner. In 1997, the study extended to the first born children (G3) of the G2



target adolescents, now young adults. The G3 children were eligible to participate when they were 18 months of age. By 2005, G3 children in the FTP ranged in age from 18 months to 13 years. Thus, the FTP has followed the G2 target youth from as early as 1989 through 2005.

The present study includes 220 G2 target adults ( $M$  age = 26.31 years; 60% female) who participated from adolescence through adulthood and who had an eligible G3 child between the ages of 3 and 5 years old by 2005. Because the present study focused on preschool age children, G2 targets who did not have children, had children younger than 3 years, or older than 5 years old were excluded from the analyses. The data were analyzed using two developmental time periods. The first includes G1 parents and G2 targets during adolescence (age 15 and 16). The second period occurs when the G2 target is a parent and when the G3 child was between the ages of 3 and 5 years old ( $M$  child age = 3.2 years; boys = 102). Since the same G3 child could participate at age 3-5, we include data only from the first time a G3 child was assessed during that time period to assure that the same child is not counted within that age range multiple times. A total of 186 3-year-olds, 25 4-year-olds, and 9 5-year-olds participated ( $n=220$ ). The means, standard deviations, and factor loadings for all study variables are provided in Table 1.

## Procedure

During 1991 and 1992 when target adolescents were in 9<sup>th</sup> and 10<sup>th</sup> grades, families were visited twice in their homes by a trained interviewer. During the first visit and after informed consent was provided, each family member completed questionnaires that included questions about family economics and personality characteristics. During the second visit, family members participated in videotaped interaction tasks that were designed to examine family interaction styles. In the present analyses, observer ratings from the discussion task were used. This task involved G2 target adolescent along with his or her G1 parents engaging in conversation on topics such as chores and family problems. The task lasted 30 minutes and the quality of the interactions was coded by trained observers using the Iowa Family Interaction Rating Scales (Melby et al., 1998) which has shown adequate reliability and validity (Melby & Conger 2001).

Beginning in 1997, the G2 target youth, now adults, participated in data collection with their romantic partner and first born child (G3). Each G2 target parent and his or her child were visited once each year in their home by trained interviewers. During these visits, the G2 target parents completed a series of questionnaires which included questions about family economics, personality characteristics, and child behavior. In addition, G2 target parents and their G3 child participated in videotaped structured interaction tasks that included a 5 minute puzzle completion task. This puzzle task was adjusted to be challenging and slightly stressful for the child's age in order to provoke a stressful situation that would help elicit how well the parent handled the stressful environment. It was expected that positive and nurturing parents would remain supportive toward the child throughout the task. Trained observers rated the quality of the interactions using the Iowa Family Interaction Rating Scales (Melby et al., 1998).

## Measures

**G1 and G2 family economic hardship**—Economic hardship for G1 (1991-1992) and G2 (1997-2005, when the G3 child was between three and five years old) was measured as a latent construct with two indicators: low income-to needs and the number of years poor during G2's adolescence, as well as in adulthood (see K. Conger et al., 2012). Low income-to-needs ratio for both G1 and G2 was calculated for each family by dividing total family income by the poverty level for a family of a given size (U.S. Bureau of the Census, 1989), and then multiplied by  $-1$  so that a high score reflects a low income level. For number of years poor, a dichotomous variable was created for G1 indicating whether the family was at or below 150% of the poverty level (1 = at or below 150% of poverty level), and was averaged across the two years. For G2, a dichotomous variable was created assessing whether the family was at or below 150% of the poverty level or not. All items were coded to indicate high levels of economic hardship.

**G1 and G2 parental positivity**—G1 Parental positivity was measured as a latent construct that included three indicators: mastery, self-esteem, and positive emotion (see Neopl et al., 2015). G1 positivity was collected from both the mother and father in 1991-1992 during the target's adolescence, while G2 positivity was collected from the target parent during adulthood when their G3 child was first assessed between three and five years of age (1997-2005). The scale of mastery (Perlin, Lieberman, Menaghan, & Mullan, 1981) included seven statements to which G1 parents responded on a 5-point Likert scale. Parents were asked to report on how strongly they agreed with statements such as "I can do just about anything I really set my mind to", "I often feel helpless in dealing with the problems in my life", and "sometimes I feel that I am being pushed around in life". All items were averaged for each parent, then averaged across mother and father responses and coded to indicate high levels of mastery. Scores were internally consistent for both mothers (alpha = .91) and fathers (alpha = .87).

The second indicator for G1 positivity was self-esteem (Rosenberg, 1965) which included 10 questions such as: "All in all, I am inclined to feel that I am a failure", "I take a positive attitude toward myself", "I certainly feel useless at times", and "At times I think I am no good at all". Responses ranged from 1=strongly agree to 5=strongly disagree. A total of 10 self-reported items were combined for mothers (alpha = .95) and fathers (alpha = .91). All items were averaged and coded in order to reflect a high level of self-esteem.

The last indicator for G1 positivity was the positive emotion scale from the NEO Personality Inventory (Costa & McCrae, 1985). This scale included 10 questions such as: "I have never literally jumped up for joy", "I am not a cheerful optimist", and "Sometimes I bubble with happiness, I am cheerful, high-spirited person". All items ranged from 1 = strongly agree to 5 = strongly disagree and were averaged and coded to indicate high levels of positive emotions. Scores were internally consistent for both mothers (alpha = .91) and fathers (alpha = .90).

G2 parental positivity was measured with three indicators: Self-mastery, positive affect, and life-satisfaction (see Neopl et al., 2015). The scale of G2 self-mastery was the same as what was used for G1 parents. G2 self-mastery (Perlin, et al., 1981) was assessed with seven



items measured on a five point scale ranging from strongly agree to strongly disagree. Item responses were averaged ( $\alpha = .76$ ). G2 parents completed an assessment of positive affect (Hays et al., 1993). This scale included six questions such as: “You felt that the future looks hopeful and promising” and “Were you a happy person?”. Responses ranged from 1 = all of the time to 6 = none of the time. A total of 6 items were recoded and averaged together ( $\alpha = .87$ ). Life-satisfaction (Conger, 1993) consisted of five items asking the G2 parent items such as: “I am satisfied with my life the way it is” and “In most ways, my life is close to my ideal”. Responses ranged from 1 = strongly agree to 5 = strongly disagree. All items were recoded and averaged together ( $\alpha = .83$ ).

**G1 and G2 positive parenting**—Observer ratings were used to assess both G1 behavior to the G2 target during adolescence (1991, 1992), as well as G2 parent behavior toward their G3 child (1997-2005). All behaviors were measured by a 9-point scale, ranging from low (no evidence of the behavior) to high (the behavior is highly characteristic of the parent) and coded by a trained observer. Positive parenting was assessed by parental warmth, communication, listener responsiveness, assertiveness, and prosocial behavior toward their child. Warmth measures praise, care, and concern for the child. Communication involves the use of reason and explanation of the child’s point of view. Listener responsiveness entails attending to and validating child verbalizations through nonverbal and verbal assents. Assertiveness is the manner and style of confident and positive expression while exhibiting patience with the responses of the child. Prosocial behavior measures the parental effective relationship with their child. Such behavior includes cooperation, sensitivity, helpfulness, and willingness.

During the G1 parent to G2 adolescent family discussion task, parents and their children discussed questions written on a series of cards which included items about school activities, family rules, and parental discipline. First, the person who read the card was instructed to read each question and answer first, then, the other family members answered next. Finally, everyone talked together about the answers that had been given. Families were instructed to go on to the next card once they felt as though they had said everything they wanted to about each question. During the G2 parent to G3 puzzle completion task, parents were asked to let the child independently solve the puzzle on their own, but the parent could offer any assistance they felt was necessary. For G1 positive parenting, maternal and paternal scores were averaged together and were internally consistent ( $\alpha=.89$ ) and demonstrated acceptable inter-rater reliability (.95). For G2 positive parenting, G2 target positive parenting scores were averaged and were internally consistent ( $\alpha=.87$ ) and demonstrated acceptable inter-rater reliability (.94). In order to correct for error variance, a single indicator latent variable for G1 positive parenting and G2 positive parenting was used in the analyses (Holahan & Moos, 1991).

**G3 positive behavior to G2**—Observational data collected during the same G3 puzzle completion task was utilized to assess G3 positive behavior toward the G2 parent. All behaviors were measured on a 9-point scale, ranging from low (no evidence of the behavior) to high (the behavior is highly characteristic of the parent) and coded by a trained observer. In the same approach as used with the positive parenting variables, G3 positive behavior was

also measured as a single latent variable including the same five positive scales used for G2 parenting: warmth, communication, listener responsiveness, assertiveness, and prosocial behavior. Warmth includes expressions of care, concern, or encouragement toward the parent. Communication measures the child's ability to positively express his/her own point of view, needs, and wants. Listener responsiveness entails attending to and validating parent verbalizations through nonverbal and verbal assents. Assertiveness measures the child's ability, when speaking, to express him/herself through clear, appropriate, neutral and positive avenues using an open, self-confident, non-threatening and non-defensive style. Prosocial behavior includes cooperation, sensitivity, sympathy, and respectfulness toward the parent in an age-appropriate manner. G3 positive behavior scores were averaged and were internally consistent ( $\alpha=.68$ ) and demonstrated acceptable inter-rater reliability (.94). A single indicator latent variable was used in the analyses.

**Control variables**—The control variables included G1 (0 = kindergarten to 20 = education beyond a master's degree) and G2 education (1 = less than high school to 8 = Ph.D. or professional degree), G2 gender (0 = male, 1 = female), age at the time their G3 child participated in this study, as well as G3 gender and age. Since G1 education and G2 education had different response categories, the scores were standardized.

## Results

Table 2 shows the zero-order correlations among theoretical constructs. Consistent with theoretical predictions, G1 economic hardship was significantly correlated with G2 economic hardship ( $r=.34, p<.01$ ), G1 positivity was significantly correlated with G2 positivity ( $r=.33, p<.001$ ), and G1 positive parenting was significantly correlated with G2 positive parenting ( $r=.26, p<.001$ ). In addition, G1 economic hardship was negatively correlated with G1 positivity ( $r=-.33, p<.001$ ) and G1 positive parenting ( $r=-.20, p<.05$ ), and G1 positivity was positively correlated with G1 positive parenting ( $r=.30, p<.001$ ). In a similar pattern, G2 economic hardship was negatively correlated with G2 positivity ( $r=-.32, p<.01$ ) and G2 positive parenting ( $r=-.47, p<.001$ ), and G2 positivity was positively correlated with G2 positive parenting ( $r=.28, p<.001$ ). Finally, G2 positivity and G2 positive parenting were both positively correlated with G3 positive behavior to G2 ( $r=.17, p<.10$ ;  $r=.52, p<.001$  respectively).

## Structural Equation Models

Structural equation modeling was analyzed using *Mplus* Version 7.0 (Muthén & Muthén, 2012) with standard coefficients used for all paths in the model, as several variables have different ranges in measuring. Missing data were handled by Full Information Maximum Likelihood (FIML; Muthén & Muthén, 2012). FIML is widely used and recommended for dealing with missing data (Duncan, Duncan, & Strycker, 2006). For the present investigation, the rate of missing data was 8% and was most likely missing at random. The SEMs were estimated based on our hypotheses which included all of the control variables in the analyses: parents' and target's education levels, age, and gender for both target parent and child. In the final model we tested whether the paths differed in significance between G1 and G2. That is, parallel paths between G1 and G2 were equated. For example, the

regression weight of the paths from G1 economic hardship to G1 positive parenting was equated to the same value as the regression weights associated with paths from G2 economic hardship to G2 positive parenting. After the three paths (economic hardship to parental positivity, economic hardship to positive parenting, and parental positivity to positive parenting) for G1 and G2 were equated, we conducted a chi-square difference test to compare the free path model and the equated model. According to the chi-square difference test, the equated model was not significantly different from the previous model which was not equated (chi-square  $\chi^2(3) = 2.5$  with  $p=.48$ ).

Several indices were used to evaluate the fit of the structural model to the data. First, the standard chi-square index of statistical fit that is routinely provided under maximum likelihood estimation of parameters was evaluated. Two indices of practical fit, the root mean square error of approximation (RMSEA; Browne & Cudeck, 1993) and the comparative fit index (CFI; Hu & Bentler, 1999) were also used. RMSEA values under .05 indicate close fit to the data, and values between .05 and .08 represent reasonable fit (Hu & Bentler, 1999). For the CFI, fit index values should be greater than .90 and preferably greater than .95, to consider fit of a model to the data to be acceptable. This model showed a good fit,  $\chi^2 = 166.672$ ,  $df = 131$ ,  $019$  CFI = .949 TLI=.939 RMSEA =.035, and was the model we interpreted. Standardized coefficients from the final model which reached statistical significance are presented in Figure 2.

Consistent with theoretical predictions, there was intergenerational continuity of economic hardship, positivity, and positive parenting across G1 and G2. That is, G1 economic hardship was significantly associated with G2 economic hardship when G2 targets were parents ( $\beta = .31$ ,  $SE = .12$ ). Similarly, G1 positivity predicted G2 positivity ( $\beta = .25$ ,  $SE = .08$ ) and G1 positive parenting was significantly related to G2 positive parenting ( $\beta = .15$ ,  $SE = .06$ ). Results also indicated that G1 economic hardship was negatively associated with G1 positivity ( $\beta = -.29$ ,  $SE = .07$ ) which, in turn, was associated with G1 positive parenting ( $\beta = .22$ ,  $SE = .06$ ). G2 economic hardship was negatively associated with G2 positivity ( $\beta = -.29$ ,  $SE = .07$ ) which, in turn, was related to G2 positive parenting ( $\beta = .19$ ,  $SE = .05$ ). Furthermore, G1 economic hardship was related to G1 positive parenting ( $\beta = -.17$ ,  $SE = .07$ ), and G2 economic hardship was also related to G2 positive parenting ( $\beta = -.14$ ,  $SE = .07$ ). Finally, G2 positive parenting was associated with G3 positive behavior to G2 ( $\beta = .71$ ,  $SE = .06$ ). In terms of the control variables, G1 positive parenting was related to G1 parental education ( $\beta = .16$ ,  $SE = .07$ ) and G2 positive parenting was related to G2 education level ( $\beta = .20$ ,  $SE = .07$ ) as well as G2 target age ( $\beta = .24$ ,  $SE = .07$ ).

**Indirect effects**—In addition to examining the direct relations within the model, we also examined the significance of the mediating pathways through which economic hardship influences child positive behavior (see Table 3). All indirect analyses were conducted with Mplus estimation of indirect effects (Muthen & Muthen, 2012). Within each generation, parental positivity mediated the association between economic hardship and positive parenting ( $\beta = -.06$ ,  $SE = .02$  and  $\beta = -.05$ ,  $SE = .02$  for G1, G2 respectively). Moreover, there were two significant indirect pathways from G2 economic hardship to G3 positive behavior. First, G2 economic hardship was indirectly related to G3 positive behavior through G2 parental positivity and G2 positive parenting ( $\beta = -.04$ ,  $SE = .02$ ). In the second pathway, G2

economic hardship was indirectly related to G3 positive behavior through G2 positive parenting ( $\beta = -.10$ ,  $SE = .05$ ).

Across generations, there was a significant indirect effect of G1 economic hardship on G2 positivity and G2 positive parenting as well as G3 positive behavior (see Table 3). G1 economic hardship was indirectly related to G2 positivity via G1 positivity ( $\beta = -.07$ ,  $SE = .03$ ). G1 economic hardship was indirectly related to G2 positive parenting through G1 positivity and G1 positive parenting ( $\beta = -.01$ ,  $SE = .03$ ), as well as through G1 positivity and G2 positivity ( $\beta = -.01$ ,  $SE = .03$ ). Finally, the association between G1 economic hardship and G3 positive behavior was mediated by G1 positivity, G2 positivity and G2 positive parenting ( $\beta = -.01$ ,  $SE = .03$ ).

## Discussion

The present investigation applied aspects of the Family Stress Model (FSM) using a family resilience framework to examine the intergenerational continuity of economic hardship, positivity, and positive parenting across generations. Furthermore, we examined how this continuity is associated with positive behavior of the third generation child. Therefore, the current study contributes to this sparse literature by clarifying the relationship among economic hardship, positive family processes, and child outcomes over time. As hypothesized, G1 economic hardship during G2 adolescence was associated with G2 economic hardship during adulthood. This is consistent with prior research that demonstrates the transmission of economic conditions from parent to child (Mazumder, 2005; K. Conger et al., 2012). The analyses also revealed continuity between G1 and G2 positivity. This extends the work of Neopl et al., (2015) which showed that G1 parental positivity during G2's early adolescence was associated with G2's positivity from late adolescence (18 years) to emerging adulthood (21 years). The unique contribution of the present study is that it extends G2 positivity into later adulthood (26 years). That is, the present study supports the notion that a positive disposition may be transmitted from one generation to the next which can extend from adolescence into the later adulthood years.

In a similar pattern, the present study shows that positive parenting was transmitted from G1 to G2. This result supports previous research which suggests that individuals who experience positive parenting when they are younger are more likely to show positive parenting to their own children (Belsky et al., 2005; Chen & Kaplan, 2001; Neopl et al., 2009), and extends this work by examining positive parenting in the context of economic adversity. Furthermore, G1 and G2 positivity was associated with positive parenting styles even in the face of economic hardship. The results also showed that G3 child positive behavior to G2 can be explained, at least in part, by G2 positive parenting, while taking into account the continuity of positivity and positive parenting from G1 to G2. Moreover, G2 economic hardship was related to G3 positive behavior through the pathway from G2 economic hardship to G2 positivity to G2 positive parenting. That is, G2 economic hardship to G2 positivity to G3 positive behavior was non-significant. One reason could be that G2 positivity was measured by personal characteristics, while G3 was positive behavior directed toward the G2 parent. Nevertheless, the results replicate and extend many studies examining how positive parental disposition is related to positive behaviors which, in turn, influence

child development (Castro-Schilo et al., 2013; Taylor et al., 2010; Taylor et al., 2012). It is noteworthy that within the context of economic hardship, the more parents maintained positivity and positively behaved toward their children, the more likely the G3 child was to display positive behavior toward their parents. These findings contribute to the literature in positive psychology that, in spite of hardship, some families maintain their positive dispositional traits which can provide advantages not only to their emotional and psychological well-being, but also have subsequent advantages across generations.

We should also consider alternative explanations for some of the findings. For example, our findings show that both G1 and G2 parental positivity were negatively associated with economic hardship. What is not clear, however, is the extent to which these findings may be related to hereditary factors. It may be that genetic factors help to explain this association. Thus, future research should examine interactions between genetic and environmental factors in relation to personality traits, and also investigate how these interactions might be related to the intergenerational continuity of personality characteristics. Furthermore, future research could investigate how positivity is associated with economic hardship over time. For example, growth curve modeling would be effective in identifying pathways from positivity to economic hardship based on the Social Selection Theory which maintains that individual characteristics may be reciprocally related to their economic conditions (Conger & Donnellan, 2007). That is, individual characteristics such as having a positive personality might influence economic hardship across time. Finally, it is possible that economic hardship may actually deteriorate positivity, or have a bidirectional association. Future research should examine this as a possible explanation for the negative relation between economic hardship and positivity.

There are also limitations worth noting. G1 and G2 positivity were measured with slightly different scales. Since some scales were not available during the early years of the study, we utilized scales based on the previous literature that has measured positive characteristics (Caprara et al., 2012; Neopl et al., 2015). Another limitation is that the data were collected some years ago and economic conditions may be different today. In addition, our sample comes from the Midwest which is mainly white. Therefore, results may not be generalizable to all families exposed to economic hardship in that there may be differences between economically disadvantaged rural white families and urban minority families. For example, urban families living in poverty are often exposed to a variety of diverse stressors such as community violence, criminal victimization, and higher unemployment rates (see Sheidow, Henry, Tolan, & Strachan, 2014). Indeed, over the past decade, high unemployment rates and decreases in family income have been disproportionate for African American and Hispanic families (Conger, et al., 2010). However, numerous studies across ethnic, geographic, and structural variations provide support for predictions from the FSM (see Conger et al., 2010). Recently, White, Liu, Nair, and Tein (2015) examined elements of the FSM in a sample of Mexican origin families from a large metropolitan area. They found that key FSM pathways were moderated by parental cultural value orientations. In a sample of families living in high rural poverty, Newland, Crnic, Cox, and Mills-Koonce (2013) found that economic pressure was associated with maternal psychological symptoms, which were significantly related to decreases in supportive parenting practices.

Finally, there may be differences in terms of positivity and positive parenting between rural white families and more diverse ethnic samples. However, Taylor et al. (2010) examined resilience processes for African American mothers in both Iowa and Georgia. They found that mothers who were optimistic showed better adjustment under economic stress. Brody et al. (2002) found that for African-American mothers in rural areas, higher levels of self-esteem was related to more competence-promoting parenting which predicted child positive adjustment. Finally, in a sample of Mexican-origin families, Castro-Schilo et al. (2013) found that optimistic parents displayed more positive parenting, which was associated with child social competence.

In closing, the current results suggest that economic hardship, parental positive characteristics, and positive parenting practices may be transmitted across generations. This continuity may then be associated with positive behavior of the third generation child. That is, there may be certain personal qualities that are related to processes of resilience to economic hardship. Thus, educational and preventive interventions could be designed to promote positive traits and positive parenting. For example, positive psychotherapy has utilized the perspective of positive psychology by increasing positive views of self and others to empower people who are at risk (Seligman, Rashid, & Parks, 2006). Likewise, interventions designed to promote positivity based on the Family Resilience Framework emphasize a positive outlook and parental nurturance. In short, the present findings suggest that such intervention efforts could be one consideration in helping parents increase their resiliency and parent their children in positive ways which can affect a young child's holistic development.

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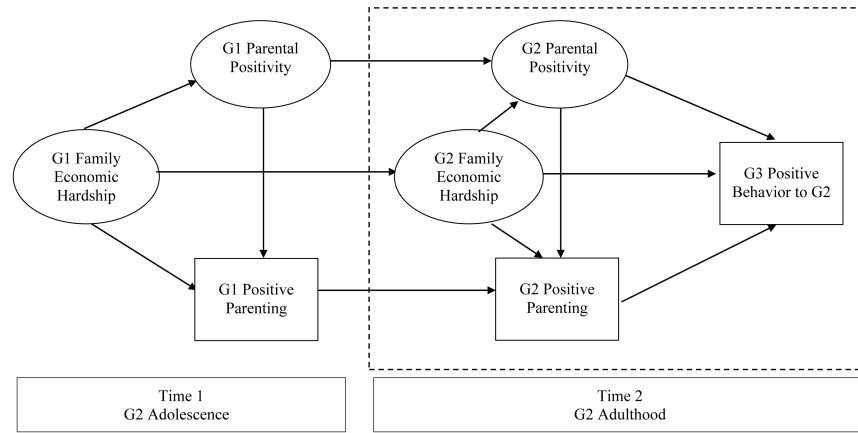
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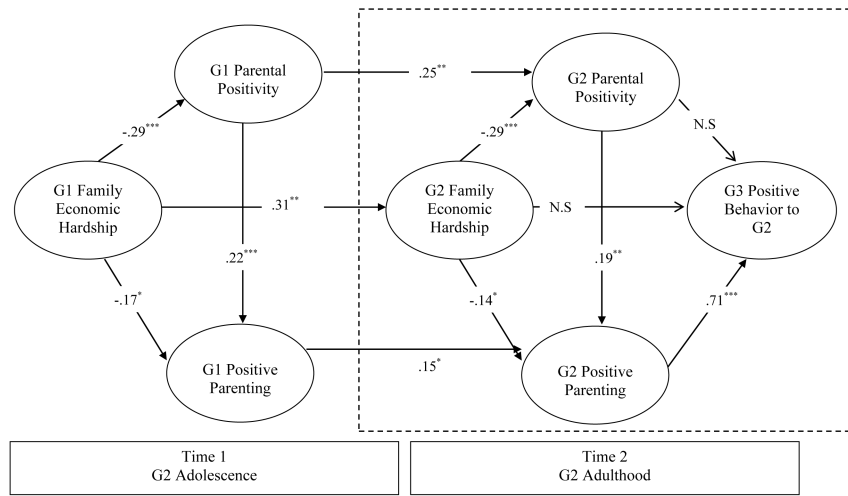
**Figure1.**  
Conceptual Model

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\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ , Model fit:  $\chi^2 = 166.672$ ,  $df = 131$ ,  $p = .019$ , CFI = .949, TLI = .939, RMSEA = .035

**Figure 2.**  
Structure Equation Model

**Table 1**

Descriptive Statistics for Study Variables (N =220)

Variables	M	SD	Factor Loading
<b>G1 Economic Hardship</b>			
Low income-to needs	-2.65	1.97	.73
State of poverty	0.24	.37	.66
<b>G1 Parental Positivity</b>			
Self-mastery	3.70	.50	.79
Self-esteem	3.94	.43	.87
Positive emotion	3.56	.43	.69
<b>G1 Positive Parenting</b>	5.47	1.15	.94
<b>G2 Economic Hardship</b>			
Low income-to needs	-3.34	2.59	.54
State of poverty	0.14	.34	.67
<b>G2 Parental Positivity</b>			
Self-mastery	4.01	.53	.69
Positive affect	3.41	.76	.71
Life satisfaction	3.60	.70	.63
<b>G2 Positive Parenting</b>	5.76	1.38	.93
<b>G3 Positive Behavior to G2</b>	2.98	.76	.82
<b>Control Variables</b>			
G1 Education level (Standardized Mean)	0	1	-
G2 Education level (Standardized Mean)	0	1	-



**Table 2**

Correlations between the Variables Used in Analyses

Study constructs	1	2	3	4	5	6	7	8	9	10	11	12
1. G1 Economic Hardship	-											
2. G1 Parental Positivity	-.33***	-										
3. G1 Positive Parenting	-.20*	.30***	-									
4. G2 Economic Hardship	.34**	-.22*	-.17	-								
5. G2 Parental Positivity	.01	.33***	.21*	-.32**	-							
6. G2 Positive Parenting	-.22*	.18*	.26**	-.47***	.28**	-						
7. G3 Positive Behavior to G2	.00	.18 <sup>†</sup>	.03	-.11	.17 <sup>†</sup>	.52***	-					
8. G1 Education Level	-.36***	.17*	.28***	-.17 <sup>†</sup>	.21**	.33***	-.00	-				
9. G2 Education Level	-.14	.04	.14	-.25*	.08	.33***	.08	.21**	-			
10. G2 Age	-.30***	.12	.24***	-.41***	.02	.40***	-.22**	.20**	.26***	-		
11. G2 Gender	-.04	.04	-.19**	.02	-.08	.02	.10	.03	-.01	-.12 <sup>†</sup>	-	
12. G3 Age	.09	-.01	.05	.26**	-.04	-.20**	-.09	-.09	-.19*	-.15*	.04	-
13. G3 Gender	.00	.02	.02	-.09	.05	.11	.10	-.02	.07	.14*	.05	-.14*

<sup>†</sup>Note.  $p < .10$ ,

\*  $p < .05$ ,

\*\*  $p < .01$ ,

\*\*\*  $p < .001$

**Table 3**

Mediating Pathway

Significant Indirect paths from Figure 1	$\beta$
G1 Economic Hardship → G1 Positivity → G1 Positive Parenting	-.06(.02)**
G2 Economic Hardship → G2 Positivity → G2 Positive Parenting	-.05(.02)**
G2 Economic Hardship → G2 Positivity → G2 Positive Parenting → G3 Positive Behavior	-.04(.02)**
G2 Economic Hardship → G2 Positive Parenting → G3 Positive Behavior	-.10(.05) <sup>†</sup>
G1 Economic Hardship → G1 Positivity → G2 Positivity	-.07(.03)*
G1 Economic Hardship → G2 Economic Hardship → G2 Positivity	-.09(.04)*
G1 Economic Hardship → G1 Positivity → G1 Positive Parenting → G2 Positive Parenting	-.01(.01) <sup>†</sup>
G1 Economic Hardship → G1 Positivity → G2 Positivity → G2 positive Parenting	-.01(.01) <sup>†</sup>
G1 Economic Hardship → G2 Economic Hardship → G2 Positivity → G2 positive Parenting	-.02(.01) <sup>†</sup>
G1 Economic Hardship → G1 Positivity → G2 Positivity → G2 Positive Parenting → G3 Positive Behavior	-.01(.01) <sup>†</sup>
G1 Economic Hardship → G2 Economic Hardship → G2 Positivity → G2 Positive Parenting → G3 Positive Behavior	-.01(.01) <sup>†</sup>
G1 Positivity → G1 Positive Parenting → G2 Positive Parenting → G3 Positive Behavior	.02(.01) <sup>†</sup>
G1 Positivity → G2 Positivity → G2 Positive Parenting → G3 Positive Behavior	.03(01)*
G1 Positive Parenting → G2 Positive Parenting → G3 Positive Behavior	.10(.05)*

Note. Standard errors appear in parentheses.

<sup>†</sup>  $p < .10$ ,

\*  $p < .05$ ,

\*\*  $p < .01$