

# Disrupting intergenerational continuity in harsh parenting: Self-control and a supportive partner

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## Abstract

Harsh, abusive, and rejecting behavior by parents toward their children is associated with increased risk for many developmental problems for youth. Children raised by harsh parents are also more likely to treat their own children harshly. The present study addresses conditions that would break this intergenerational cycle of harsh parenting. Data come from a three-generation study of a cohort of 290 adolescents (Generation 2 [G2], 52% female) grown to adulthood and their parents (Generation 1 [G1]). During adolescence, observers rated G1 harsh parenting to G2. Several years later observers rated G2 harsh parenting toward their oldest child (Generation 3 [G3]). Several adaptive systems fundamental to human resilience attenuate intergenerational continuity in harshness. G2 parents were relatively less harsh to G3 children (notwithstanding a history of harshness from G1) when G2's romantic partner (a) communicated positively with G2 and (b) had a good relationship with G3, and (c) when G2 was high on self-control. Interventions that target all of these protective factors may not only break but also reverse the intergenerational cycle of child maltreatment.

An increasing number of studies have addressed the degree to which parenting behavior in one generation (Generation 1 [G1]) predicts parenting in the second generation (Generation 2 [G2]), because of the potential importance of early experience for the enactment of later parenting roles (Conger, Belsky, & Capaldi, 2009). Interest in the study of intergenerational continuity in hostile, harsh, rejecting, abusive, or aggressive parenting primarily derives from convincing empirical evidence that harsh behaviors by parents toward their children are associated with a range of developmental problems, including aggressive, antisocial, or delinquent behaviors (Hinnant, Erath, & El-Sheikh, 2015; Kawabata, Alink, Tseng, van IJzendoorn, & Crick, 2011). There is evidence that parental harshness in one generation leads to similar childrearing behaviors in the next, at least in part because of the aggressiveness or antisocial behavior that G1 harsh parenting intensifies in G2 early in development (Caspi & Elder, 1988).

Parents in the same family tend to influence one another's childrearing behaviors (Schofield et al., 2009), and when one parent has experienced a history of harsh parenting, they are less likely to use similar behaviors with their own children if their spouse or coparent models warm and supportive behaviors toward children (Conger, Schofield, & Nepl, 2012) and if their spouse or coparent demonstrates nurturing behaviors during marital interactions (Conger, Schofield, Nepl, & Merrick, 2013). In sum, prior research shows these social processes reduce intergenerational continuity in harsh parenting. A major limitation in this line of research, however, is the failure to identify characteristics of the individual that disrupt this cycle of child maltreatment. The primary purpose of the present study is to identify parent characteristics that reduce intergenerational continuity in harsh parenting.

This study draws from the resilience theoretical framework as described by Masten (2014). According to this perspective, the term resilience refers to the capacity of dynamic systems and individuals to recover from or withstand significant disturbances or stressors, continuing to function healthily. Masten describes several adaptive systems that are fundamental to human resilience: close relationships and families, agency and mastery motivation, cognitive resources, and self-regulation. These systems are moderating factors leading to better outcomes and, although potentially interdependent, need not co-occur or correlate. We include indicators from each of these adaptive systems in the current study, and test their potential role as moderators of intergenerational continuity in harsh parenting.

The first adaptive system discussed by Masten (2014) is close relationships. This was the first system addressed in previous research as a potential moderator of intergenerational

This research is currently supported by Grant HD064687 from the Eunice Kennedy Shriver National Institute of Child Health and Human Development. The content is solely the responsibility of the authors and does not necessarily represent the official views of the funding agencies. Support for earlier years of the study also came from multiple sources, including the National Institute of Mental Health (MH00567, MH19734, MH43270, MH59355, MH62989, MH48165, MH051361), the National Institute on Drug Abuse (DA05347), the National Institute of Child Health and Human Development (HD027724, HD051746, HD047573), the Bureau of Maternal and Child Health (MCJ-109572), and the MacArthur Foundation Research Network on Successful Adolescent Development Among Youth in High-Risk Settings.

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harshness. Consistent with broader literature showing that co-parents influence each other's behavior (Schofield et al., 2009), when one parent has experienced a history of harsh parenting, they are less likely to use similar behaviors with their own child if their spouse models warm and supportive behaviors toward the child (Conger et al., 2012). Consistent with the established link between marital support and parenting behavior (Quinton, Rutter, & Liddle, 1984), parents are also less likely to repeat harsh parenting behaviors they experienced in their youth if they have a spouse or coparent who demonstrates nurturing behaviors and positive communication toward the G2 parent (Conger et al., 2013).

In the current study, we extend this pool of established moderators to include measures of the other adaptive systems described by Masten (2014). From the mastery motivation system, we include as a hypothesized protective factor beliefs about parental efficacy. Parents who believe that nurturing parenting has an influence on child development are more likely to exhibit such parenting behaviors themselves (Schofield & Weaver, 2016). We expect such beliefs will also help parents redirect away from harsh parenting practices they may have experienced from their own parents.

The third adaptive system described by Masten (2014) involves cognitive resources (i.e., learning and intelligence). Consequently, in the current study, we also include a measure of learning: problem-solving skill. Good problem-solving skill is one of the most consistently reported attributes associated with resilience (Masten & Coatsworth, 1998), and has been linked to lower levels of harsh parenting (Kaminski, Valle, Filene, & Boyle, 2008). We expect that parents who are better problem solvers will also be more capable of redirecting away from harsh parenting practices they may have experienced from their own parents.

Finally, in the current study we include self-control as a measure of self-regulation, the fourth adaptive system described by Masten (2014). In addition to intervention-based evidence that supports the role of self-regulation in resilience generally (Diamond, Barnett, Thomas, & Munro, 2007) parents high on self-control tend to ignore their negative emotional responses when faced with child misbehavior and, instead, invest in more appropriate behaviors that involve thought and planning, such as effective control strategies, warmth, and nurturance (Lorber, O'Leary, & Kendziora, 2003). That is, parents exposed to harsh parenting as a child but high on self-control can inhibit the primed behavior patterns to which they were repeatedly exposed by their parents, affording the opportunity to choose a different parenting behavior instead of reacting. Previous literature has not addressed this moderating role of self-control on intergenerational continuity in harsh parenting. However, impairments in overall executive functioning and inhibitory control in particular, as well as problems with self-regulation, impulsivity, and behavioral undercontrol (constructs that involve the lack of self-control), have been linked with higher rates of harsh parenting (Chen & Johnston, 2007; Cuevas, Deater-Deckard, Kim-Spoon, Watson, & Morasch, 2014; Rutherford, Wallace, Laurent, & Mayes, 2015).

Our primary hypothesis is that these protective factors will reduce intergenerational continuity in harsh parenting. However, the inclusion of these variables in the same model allows for additional hypotheses. Earlier research indicates that social history partially determines the kinds of social relationships that individuals develop in their lives (Conger & Donnellan, 2007), as well as development of individual characteristics like problem-solving ability (Neitzel & Stright, 2004) and self-control (Schofield, Conger, Donnellan, Jochem, & Widaman, 2012). Thus, we hypothesize that a history of harsh parenting will be negatively related to these adaptive systems described by Masten (2014). This hypothesis is consistent with the theoretical position that parenting influences important indices of development (Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000).

## Methods

### Participants

Data for the present study were drawn from the Family Transitions Project, an ongoing, longitudinal study of 558 target youth (51% female) and their families. Interviews were first conducted with members of this cohort of adolescents (G2) and their parents (G1) in 1994, when they were in 12th grade. G2 participants were interviewed in alternating years, with an average retention rate of 89% through 2005, when they averaged 29 years of age. Of the original 558 families, 107 adolescents came from single-mother families, and the remainder of these youth lived with both their biological parents. Participants lived in rural counties in north central Iowa, and were all European Americans from primarily lower middle and middle-class families. Additional information about the initial recruitment and the families involved is available in Conger and Conger (2002).

Beginning in 1997, the oldest biological child (Generation 3 [G3]) of the G2 target was recruited for study. To be eligible for participation, the child had to be at least 18 months of age and the G2 target parent must have been in regular contact with the G3 child. The current study focuses on the 290 G2 targets (120 males, 170 females) who had a G3 child eligible for participation by 2005. Our study used data from the G2 targets' adolescent years (prior to their becoming parents), as well as data from the annual assessments of each G3 child. A total of 90% of the G2 target parents with eligible children agreed to participate. The G2 targets averaged 25.6 years of age ( $SD = 2.6$ ) at the first assessment during which G3 entered the study, which is the focus of the present analyses. Eighty-one percent of the G2 targets were living with the other biological parent of the G3 child at the first G3 assessment. The average age of the G3 children at first assessment was 2.31 years ( $SD = 1.0$ ). There were 157 G3 boys and 133 G3 girls.

### Procedures

G2 targets and their G1 parent(s) were recruited from public and private schools in rural areas of Iowa during G2's adoles-

cent years. Letters explaining the project were sent to eligible families, who were then contacted by telephone and asked to participate. Seventy-eight percent of the two-parent families, and over 90% of the single-parent families agreed to be interviewed. During each assessment period, professional interviewers made home visits to each family for approximately 2 hr on two occasions. During the visits, each family member completed a set of questionnaires and participated in a structured interaction task, which was coded by trained observers. The 15-min task consisted of the family members (mother, father, and the target adolescent) discussing and trying to resolve issues and disagreements they had cited as most problematic in a questionnaire they had completed earlier in the visit (Conger & Elder, 1994). As over 25% of the targets were part of single-mother families, the current analyses use data from the mother–target interactions.

Beginning as early as 1997, the G2 target and G3 child were visited at home once each year by trained interviewers. Data were collected from G2 targets and their G3 children, as well as from the romantic partners (married or cohabiting) of the G2 targets (when they had one), following procedures similar to those described for the G2's family of origin. The G2 target and participating partner (when applicable) completed a series of questionnaires and structured tasks.

During the first assessment, the G2 target and G3 child engaged in a videotaped interaction task called the *puzzle task*, which lasted 5 min. In this task, G2 and G3 were presented with a puzzle that was too difficult for children to complete alone. G2 parents were instructed that the child should complete the puzzle alone; however, the parent could provide assistance if absolutely necessary. Puzzles varied by age group so that the puzzle slightly exceeded the child's skill level. This interaction task created a stressful environment for both parent and child, and the resulting behaviors indicated how well the parent handled the stress and how adaptive the child was to an environmental challenge. We expected that this task would produce a stressful situation likely to exacerbate harsh parenting for G2s if they engaged in such behaviors. In addition, G2 targets participated in a 25-min video discussion task with their romantic partners during which they discussed the pleasant and unpleasant events in their lives, how they handle conflicts, and plans for the future. The subject and order of these topics was determined by a set of cue cards, presented to the participants in a random order. Participants were asked to discuss the cards in order, and not skip any cards. Trained observers coded the quality of the behaviors between participants using the Iowa Family Interaction Rating Scales (Melby, & Conger, 2001). Each interaction task (G1 with G2, G2 with G3, and G2's partner with G2) was coded by an independent observer. Approximately 20% of all videotaped interaction tasks were randomly assigned for rating by a second, independent observer. Intraclass correlations for scales used in this study ranged from 0.74 to 0.84 for G1 harsh parenting, from 0.71 to 0.77 for G2 harsh parenting, from 0.56 to 0.76 for positive communication by G2's partner toward G2 target, and from 0.80 to 0.92 for relationship quality between G2's partner and the G3 child.

## Measures

*G1 harsh parenting.* During the first wave of data collection for the Family Transitions Project, the final year of high school, trained observers rated the G1 mother on a 9-point scale from *low* to *high* on the degree to which she showed hostility, angry coercion, physical attacks, and antisocial behavior toward the G2 target during adolescence (Conger & Elder, 1994). Hostility ratings reflected the extent to which hostile, angry, critical, disapproving, rejecting, or contemptuous behavior is directed toward the adolescent's behavior, appearance, or personal characteristics ( $M = 3.42$ ,  $SD = 2.31$ ). Angry coercion ratings reflected control attempts that include threatening or blaming behavior ( $M = 2.14$ ,  $SD = 1.81$ ). Physical attack ratings reflected aversive physical contact, including hitting, pinching, grabbing, and so forth ( $M = 1.50$ ,  $SD = 1.03$ ). Antisocial behavior ratings included demonstrations of self-centered, egocentric, acting out, and out-of-control behavior that show defiance, active resistance, immaturity, insensitivity toward others, or lack of constraint ( $M = 4.20$ ,  $SD = 1.91$ ). Internal consistency reliability was acceptable across the four scales ( $\alpha = 0.91$ ). The four rating scales were used as multiple indicators for a latent construct (standardized factor loadings  $\lambda$  range = 0.44–0.97).

*G2 harsh parenting.* Trained observers rated G2 targets on a 9-point scale from *low* to *high* on the degree to which they showed hostility ( $M = 2.90$ ,  $SD = 2.07$ ), angry coercion ( $M = 2.74$ ,  $SD = 2.21$ ), physical attacks ( $M = 2.28$ ,  $SD = 1.90$ ), and antisocial behavior ( $M = 3.49$ ,  $SD = 1.96$ ) toward the G3 child. Internal consistency reliability was acceptable across the four scales ( $\alpha = 0.96$ ). The four rating scales were used as multiple indicators for a latent construct (standardized  $\lambda$ s = 0.77–0.98).

*Positive communication by G2's partner toward G2 target.* G2's spouse or cohabiting romantic partner was rated on 9-point scales involving positive communication by G2's romantic partner to G2 based on four rating scales (communication, listener responsiveness, assertiveness, and prosocial behavior), averaged into a single scale score ( $M = 6.36$ ,  $SD = 1.19$ ; Conger & Elder, 1994). Communication ratings reflected the speaker's ability to neutrally or positively express his/her own point of view, needs, or wants in a clear, appropriate, and reasonable manner, while demonstrating consideration of the other interactor's point of view. Listener responsiveness reflected nonverbal and verbal responsiveness as a listener through behaviors that validate and indicate attentiveness to the speaker. Assertiveness ratings reflected the ability, when speaking, to use an open, straightforward, self-confident, nondefensive style. Prosocial behavior ratings reflected demonstrations of helpfulness, sensitivity toward others, cooperation, sympathy, and respectfulness. Internal consistency reliability was acceptable for the positive communication construct ( $\alpha = 0.83$ ). To account for imperfect reliability of the scale scores, we created a single-indicator latent variable

to represent this and the other moderators by fixing the residual variance of the scale score to  $([1 - \text{scale reliability}] \times \text{scale variance})$ ; Hayduk, 1987; Hayduk & Littvay, 2012).

*Relationship quality between G2's partner and the G3 child.* Trained observers rated the romantic partners of the G2 targets on the degree to which they showed positive relationship quality, positive mood, and enjoyment of the interaction task with the G3 child during the G3 child's first assessment ( $M = 5.17$ ,  $SD = 1.48$ ,  $\alpha = 0.88$ ; Conger & Elder, 1994). Relationship quality ratings reflected the observer's evaluation of the quality of the dyad's relationship. Positive mood ratings reflected expressions of contentment, happiness, and optimism. Task enjoyment ratings reflected the extent of satisfaction, enjoyment, pleasure, and fun evident in the interaction. These behaviors were combined into a single indicator of a latent construct for relationship quality (standardized factor loading = 0.95).

*G2 beliefs about parental efficacy.* G2 targets completed a four-item scale created for this study assessing the degree to which they believed good parenting involves investments of time and attention, and that such investments positively influence children's development. Schofield et al. (2013) report moderate reliability and good predictive validity. Questions were answered on a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*) and included "The best way to get kids to behave well is to give them lots of praise and attention when they do something right," and "The behavior of parents largely determines a child's self-concept." This scale was collected during the assessment prior to the G3 child entering the study ( $M = 2.43$ ,  $SD = 0.50$ ,  $\alpha = 0.65$ , standardized  $\lambda = 0.95$ ).

*G2 problem solving.* G2 problem solving was based on an eight-item scale completed by their spouse or cohabiting romantic partner parent (Masarik et al., 2016). This scale was collected during the assessment prior to the G3 child entering the study. The introduction to the scale read "Now think about what usually happens when you and your partner have a problem to solve. Think about what he/she does. When the two of you have a problem to solve, how often does your partner . . ." Items were completed on a scale from 1 (*never*) to 7 (*always*) and included how often G2 would "listen to your ideas about how to solve the problem," "have good ideas about how to solve the problem," and "show a real interest in helping to solve the problem." The resultant scale had good reliability ( $M = 5.89$ ,  $SD = 0.88$ ,  $\alpha = 0.87$ ), and was used as a single indicator of a latent variable (standardized  $\lambda = 0.92$ ).

*G2 self-control.* G1 parents reported on G2 self-control at the first assessment (i.e., 1994) using the "control" scale of the Multidimensional Personality Questionnaire developed by Tellegen (e.g., Harkness, Tellegen, & Waller, 1995). An abbreviated 33-item informant report for the Multidimensional Personality Questionnaire was used to obtain reports of G2 adolescent personality from the G1 parents. Parents were asked to rate the target adolescent in relation to others of

the same age and sex. Responses ranged from 1 (*lowest 5%*) to 5 (*highest 5%*), including items such as "deliberate and careful, likes to stop and think before acting," "level-headed, rational; they 'keep their feet on the ground'; they manage their affairs in a sensible and orderly manner," and "likes to have detailed plans before they start something new so they know what to expect and how to proceed." The correlation between mother and father reports of control was 0.64, which indicated a reasonable amount of agreement, a result broadly consistent with existing personality research (e.g., Funder, 1999). We combined mother and father reports and used the scale as a single indicator of a latent variable ( $M = 3.31$ ,  $SD = 0.72$ , standardized  $\lambda = 0.93$ ).

### Analyses

Study hypotheses were evaluated using nested structural equation models. We fit the measurement model and considered equivalence across G2 gender, assessing model fit using the standard chi-square index of statistical fit that is routinely provided under maximum likelihood estimation of parameters. We also used two indexes of practical model fit, the root mean square error of approximation (RMSEA; Browne, & Cudeck, 1993) and the Tucker–Lewis index (TLI; Tucker, & Lewis, 1973). RMSEA values under 0.06 and TLI values above 0.95 indicate close fit to the data (Hu & Bentler, 1999). Single-indicator latent variables are common with complex models, particularly when the hypotheses do not involve the measurement model (e.g., Ferrer & McArdle, 2003). In this study, our use of single-indicator latent variables for the moderators was driven by the collinearity between base terms and product terms in the multiple moderation models. Bootstrapped confidence intervals were estimated when testing indirect paths.

### Results

We used Mplus Version 7 (Muthén, & Muthén, 1998–2013) to estimate the model using full information maximum likelihood estimation, first focusing on the measurement model, and then turning to the structural paths to test study hypotheses. We fit a seven-factor model using G1 harshness, G2 harshness, G2 partner's positive communication with G2, G2 partner's relationship quality with G3 child, G2 beliefs about parental efficacy, G2 problem solving, and G2 self-control. A series of analyses demonstrated strong factorial invariance across gender for all variables (Meredith, 1993). In addition, in the model tests described below, we evaluated gender differences in findings for G2. There were no significant differences by gender; therefore, we report the results for the combined G2 sample. Missingness was less than 20% for all variables except relationship quality between G2's partner and the G3 child (27% missingness). Correlations among the latent factors are presented in Table 1. For example, the association between G1 harsh parenting and later G2 harsh parenting was 0.31. All the hypothesized protective factors were

**Table 1.** Correlations among variables used in analyses

Variable	1	2	3	4	5	6	7
1. G1 harsh parenting	—						
3. G2 spouse's positive relationship with G3 child	-.18*	-.23*	—				
4. G2 Spouse positive communication during marital task	-.18*	-.33*	.18*	—			
5. G2 beliefs about parental efficacy	-.04	-.15*	-.01	.23*	—		
6. G2 problem solving	-.11	-.15*	-.01	.20*	.15*	—	
7. G2 self-control	-.25*	-.31*	.11	.27*	.11	.12	—

Note: G1–G3, Generations 1–3.

\* $p < .05$ .

negatively associated with G2 harsh parenting. In addition, G2 partner's behavior and G2 self-control were negatively associated with G1 harsh parenting.

### Model testing

Table 2 includes the results from initial tests of moderation, with each moderator run in a separate model. For instance, the unstandardized regression coefficient indexing intergenerational continuity was 0.38 when G2's partner was 1 *SD* below the mean on positive communication during the marital task, and 0.01 when G2's partner was 1 *SD* above the mean on positive communication during the same task. All the hypothesized protective factors reduced intergenerational continuity, with the exception of G2 problem solving. Having established that four of the five hypothesized moderating effects were significant when considered separately, our next step was to include them all simultaneously in a cumulative model.

Our first cumulative model (Model 1) predicted G2 harsh parenting from G1 harsh parenting, and all five protective factors. Model 1 also included paths from G1 parenting to G2 protective factors, and included the hypothesized moderating effects of these protective factors on the path from G1 harsh

parenting to G2 harsh parenting. This model had a fit of  $\chi^2 = 159.78$ ,  $df = 94$ ,  $p < .001$ , TLI = 0.952, RMSEA = 0.049, and showed significant indirect paths for G2 self-control,  $b = 0.067$ , confidence interval; CI [0.016, 0.117], and romantic partner's positive communication,  $b = 0.046$ , CI [0.002, 0.090]. Examination of the coefficients revealed that five of the structural paths were not statistically significant: the main and moderating effects of both problem solving and beliefs about parental efficacy, and the path from G1 harsh parenting to G2 harsh parenting. Model 2 set to zero these five paths that were not statistically significant, which did not significantly worsen model fit,  $\chi^2 = 167.27$ ,  $df = 100$ ,  $p < .001$ , TLI = 0.955, RMSEA = 0.048. We chose Model 2 as the best fitting, most parsimonious representation of the data. As a supplemental analysis, we included only beliefs about parental efficacy as a moderator, and then tried adding in the additional moderators one at a time. This supplemental analysis showed that the drop in statistical significance of parenting beliefs was due to the observed behavior of G2's spouse/co-parent.

Figure 1 provides the standardized coefficients from Model 2. Consistent with our expectation of direct associations between these predictors and G2 harsh parenting, G2 parents were less likely to engage in harsh parenting when they were high on self-control ( $\beta = -0.23$ ), when G2's romantic partner demonstrated positive communication during a marital task ( $\beta = -0.29$ ), and when G2's romantic partner showed a positive relationship with the G3 child ( $\beta = -0.18$ ). G1 parent harshness was negatively associated with G2 spouse warmth and support, as well as with G2 self-control and problem solving. Consistent with our hypothesis of moderation by these predictors on intergenerational continuity in parenting, the magnitude of intergenerational continuity decreased when G2 parents were high on self-control ( $\beta = -0.17$ ), when G2's romantic partner demonstrated positive communication during a marital task ( $\beta = -0.17$ ), and when G2's romantic partner showed a positive relationship with the G3 child ( $\beta = -0.16$ ).

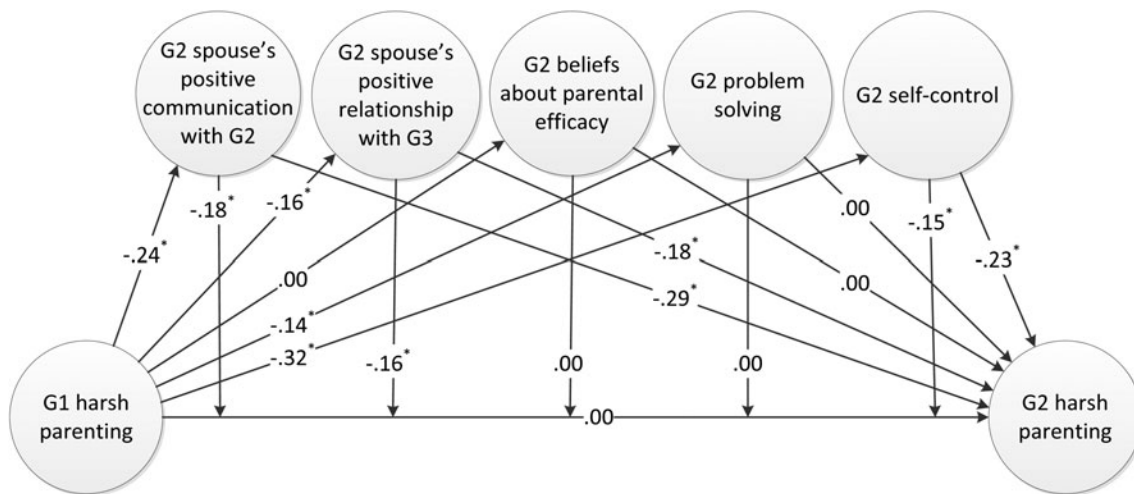
In order to depict the cumulative effect of these moderators, Figure 2 provides simple slopes depicting the combined moderation effects of G2 self-control, romantic partner's positive communication with G2, and romantic partner's relationship quality with G3 on the association between G1 harsh

**Table 2.** Moderation coefficient and simple slope for individual moderating effects on intergenerational continuity in harsh parenting

Protective Factor	Moderation Coefficient		Simple Slopes	
	$\beta$	$p$	-1 <i>SD</i>	+1 <i>SD</i>
G2 spouse's positive communication to G2	-0.13	.047	0.38*	0.01
G2 spouse's positive relationship with G3	-0.19	.010	0.46*	0.07
G2 beliefs about parental efficacy	-0.15	.015	0.59*	-0.02
G2 problem solving	-0.06	.33	—	—
G2 self-control	-0.13	.036	0.42*	0.10

Note: G2–G3, Generations 2–3.

\* $p < .05$ .



**Figure 1.** Standardized coefficients of simultaneous multiple moderation by adaptive systems on the intergenerational continuity in harsh parenting. \* $p < .05$ .

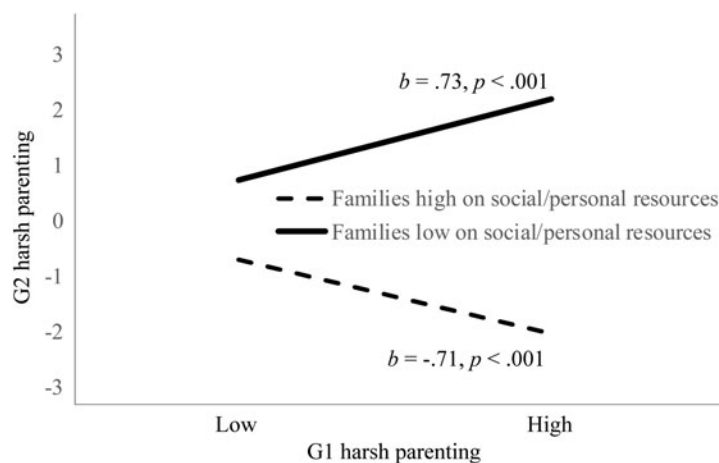
parenting and G2 harsh parenting. Although the simple slopes graphed illustrate a hypothetical G2 parent at either +1 or -1 *SD* on each of these protective factors, these simple slopes are derived from the regression equation for the entire G2 sample. Among G2 families that were 1 *SD* above the mean on all three protective factors, the intergenerational coefficient was negative and significant ( $b = -0.71, p < .001$ ). The magnitude of intergenerational continuity was positive and significant in families that were -1 *SD* below the mean on all protective factors ( $b = 0.73, p < .001$ ).

## Discussion

Harsh parenting is implicated in a host of maladaptive developmental outcomes (Dogan, Conger, Kim, & Masyn, 2007; Hinnant et al., 2015; Kawabata et al., 2011). Well-designed studies conducted prospectively over time and across generations have demonstrated that harsh, hostile, and abusive parenting in one generation (G1) predict harsh, hostile, and abu-

sive parenting in G2, or the second generation (Conger et al., 2009). Although social processes (i.e., coparent's parenting behavior and marital support) have been shown to reduce continuity across generations in harsh parenting, there have been no tests of individual characteristics as moderators of intergenerational continuity in harsh parenting.

To address this important gap in earlier research, we hypothesized that protective factors derived from Masten's (2014) summary of primary adaptive systems would moderate intergenerational continuity in harsh parenting. Based on observations of parenting and partner behaviors in two generations of families, we found significant support for our hypothesis. Four of these five moderators showed significant buffering effects that disrupted the intergenerational continuity in harsh parenting. That is, when G2 parents were 1 *SD* above the mean on any of these factors, there was no association between G1 harsh parenting and G2 harsh parenting. This suggests that children of harsh parents are less likely to grow up to be harsh themselves if they have self-con-



**Figure 2.** Simple slopes from multiple moderation model of adaptive systems on the intergenerational continuity in harsh parenting.

trol, if they believe parenting investments of time and attention shape child development, if their romantic partner/coparent has a positive relationship with the G3 child, or if their romantic partner/coparent is positive in their behaviors toward the G2 parent. It is also encouraging, although G1 harsh parenting predicted these moderators, that this association was far from perfect, indicating that many G2 parents can, despite a problematic parenting history, acquire the necessary personal and social resources to parent without harshness. This capacity to respond to early parental harshness with either an adaptive outcome (i.e., reduction in intergenerational continuity) or a negative outcome (i.e., maintaining intergenerational continuity) addresses the relation between typical and atypical psychological development central to developmental psychopathology. However, removing intergenerational continuity does not suggest a cessation of harsh parenting in the second generation. Consequently, the question remains what factors eliminate harsh parenting, parenting history notwithstanding.

Despite widespread acknowledgement in nonacademic forums that children sometimes choose to behave opposite of their parents, this is the first empirical evidence of the dynamic. This could be interpreted as the happy result of multiple protective factors that happened to co-occur. From an agency perspective, this could be viewed as evidence that G2s raised by harsh parents who can say “challenge accepted,” develop self-control, and find a supportive coparent can also choose to be good parents regardless of the probabilistic risk due to their parenting history. Another possible interpretation is that G2 parents are likely to share with G1 the same predispositions to behave harshly, but master those tendencies outside of conscious awareness by a strong reaction in the opposite direction (Baumeister, Dale, & Sommer, 1998). This is typically described as reaction formation, and is used to explain why some, but not all, mothers who were abused as children become abusive (Main & Goldwyn, 1984). A final interpretation, drawn from the coping literature, is that offspring experience harsh parenting, perceive it as aversive, and marshal the necessary resources to behave differently with their own children. When a parent’s behavior is aversive for a child, the child often responds with an emotional reaction away from the behavior (Moore, Cohn, & Campbell, 2001). This emotional reaction, over time, can solidify into a negative attitude about the behavior (Padilla-Walker & Carlo, 2004). In other words, harsh parenting is also aversive for children, which would lead some children to respond by deliberately avoiding the behavior themselves. The term for this, taken from the study of parental alcohol use, is aversive transmission (Haller & Chassin, 2010; Harburg, Davis, & Caplan, 1982). Some children of alcoholics do not emulate their parent’s alcohol abuse, shared genetic propensity notwithstanding, but instead deliberately eschew alcohol use. This results in a subgroup for whom the correlation indexing intergenerational continuity is negative. The protective factors found in this study (self-control and selection of spouse/coparent) are consistent with all these explanations, and can only be validated or invalidated with additional research.

No single protective factor alone produced moderation strong enough to create a significant negative intergenerational coefficient. This suggests that multiple resources are necessary to afford G2 offspring the ability to reverse intergenerational transmission. This is the first study to show moderating effects of beliefs about parental efficacy and self-control on the intergenerational continuity in harsh parenting. These findings are consistent with previous work showing that beliefs about parental efficacy predict change over time in observed parenting behaviors (Schofield & Weaver, 2016) and that maternal executive function is associated with parenting behavior (Cuevas et al., 2014). The moderating effect of beliefs about parental efficacy was not significant in the multiple moderator model, suggesting that it explained common variance with another protective factor. Supplemental analyses showed that this drop in statistical significance of parenting beliefs was attributable to the observed behavior of G2’s spouse/coparent. This sublimation by the coparent’s behavior of the effect due to beliefs about parental efficacy is consistent with the idea that such beliefs affect parent behavior in part by informing selection of one’s spouse/coparent.

An unexpected finding was that the inclusion of all these moderating effects in the cumulative model rendered the average intergenerational coefficient not significant. This is noteworthy as most mediation or process models are of the “bad people do bad things” variety, in which the intermediary factors are of the same valence as the predictor or putative cause (e.g., Dittmar, Bond, Hurst, & Kasser, 2014; Effron, Bryan, & Murnighan, 2015; Stajkovic, Dongseop, & Nyberg, 2009; Whiffen & MacIntosh, 2005). This is also the case for mediational models of intergenerational continuity in harsh parenting (Hops, Davis, Leve, & Sheeber, 2003), with mediators usually being negative traits or negative behavior. We did not test for mediation in this study (Green, Ha, & Bullock, 2010). However, the intergenerational continuity in harsh parenting was accounted for by the combined moderation effects (self-control and positive behavior by G2s romantic partner/coparent toward G2 and G3), the valence of which was positive. That is, self-control and positive behavior by a spouse toward either G2 or G3 are all promotive factors (i.e., good things). This finding invites a perspective of intergenerational continuity in harsh parenting based on resilience (i.e., the role of protective and promotive factors) instead of a risk perspective. Finally, the indirect effects from G1 harshness to G2 harshness via self-control and G2 coparent’s behavior implicate them as potential mechanisms of intergenerational continuity in harsh parenting.

Genetic factors were not modeled in the current study. Consequently, the current findings cannot address the possibility that a portion of the intergenerational continuity is driven by genetic propensities shared between G1 and G2. Instead, the current study focuses on factors that moderate that continuity, a portion of which is very likely genetic. Our ability to identify support for our hypothesis of moderation may have benefitted from our use of observed parenting behavior, as it is less heritable than parent or child reports of parenting

(Avinun, & Knafo, 2014; Kendler & Baker, 2007). Intergenerational continuity in parenting behavior is larger when both generations are observed when children are at the same age (van IJzendoorn, 1992), so the estimate of intergenerational continuity in this study is likely conservative. In addition, discussions of family disagreement with a 17-year-old may be more likely to evoke conflict than the puzzle task with a young child. Consequently, any mean difference in harshness across generations cannot be interpreted as cohort or generational differences, and this may have attenuated some of the observed moderation effects.

Prevention or intervention programs interested in disrupting intergenerational continuity in harsh parenting would do well to focus on coparent as well as parent-child relationships. Many parenting programs have a singular focus on one parent's behavior, typically the mother's (for a discussion of this issue, see Cowan, Cowan, Pruett, Pruett, & Wong, 2009). The current findings show that when a coparent is present in the home, promoting the coparent's positive contributions to the family system (as either a romantic partner or a coparent) may benefit children through improvements in

parenting. Some participants mention after interventions that they did not benefit as much as they could have, due to the behavior of their spouse (Pruett, Insabella, & Gustafson, 2005). Interventions that include a focus on the coparents as a couple not only show improvements in child outcomes but also are cost effective (Little, 2016). The current study shows yet another way in which improving the practices of one parent may lead to a positive carryover effect for their coparent. Of course, the benefits of a coparent are not available in single-parent families.

These results have limitations, including reliance on an ethnic majority sample of rural adolescents grown to adulthood. They need to be replicated in more diverse populations to increase confidence in their generalizability, and the non-experimental design cannot support strong causal inference. Self-control was assessed during adolescence, and could have changed in the span between that assessment and the onset of G2 parenthood. Nevertheless, these results provide promising evidence regarding several important mechanisms for reversing the often-reported intergenerational continuity in harsh, abusive, or aggressive parenting.

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