## **BRIEF REPORT**

# Does Being an Older Parent Attenuate the Intergenerational Transmission of Parenting?

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Evidence that the transition to parenthood is occurring at older ages in the Western world, that older parents provide more growth-facilitating care than do younger ones, and that most prospective studies of the intergenerational transmission of parenting have focused on relatively young parents led us to evaluate whether parental age might moderate—and attenuate—the intergenerational transmission of parenting. On the basis of the seemingly commonsensical assumption that as individuals age they often become more psychologically mature and have more opportunity to reflect upon and free themselves from the legacy of childhood experiences, we hypothesized that deferring parenting would weaken links between rearing experiences in the family of origin and parenting in the family of procreation. To test this proposition we repeated analyses reported by Belsky, Jaffee, Sligo, Woodward, and Silva (2005) on 227 parents averaging 23 years of age linking rearing experiences repeatedly measured from 3 to 15 years of age with observed parenting in adulthood; we added 273 participants who became parents at older ages than did those in the original sample. Although previously reported findings showing that rearing history predicted mothering but not fathering reemerged, parental age generally failed to moderate the intergenerational transmission of parenting. Other investigators prospectively following children and adults into adulthood and studying the intergenerational transmission process should determine whether these null results vis-à-vis the attenuation of transmission with age obtain when parents with older children are studied or when other methods are used.

Keywords: parental age, parenting, mother, father, intergenerational transmission

Why do parents parent the way they do? This has been a fundamental and long-standing question in the study of human development for decades (Belsky, 1984; Belsky & Jaffee,

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2006). The intergenerational transmission of parenting captures one of the foundational assumptions about the origins of individual differences in parenting (Belsky, 1978, 1980; Spinetta & Rigler, 1972; Van IJzendoorn, 1992). That is, parenting is passed down the generational line, with childhood experiences in the family of origin shaping parenting in the family of procreation in adulthood. Although most of the initial work chronicling intergenerational transmission was inspired by efforts to understand the etiology of child maltreatment (Belsky, 1978, 1980; Cicchetti & Rizley, 1981; Kaufman & Zigler, 1989; Spinetta & Rigler, 1972), much subsequent work sought to illuminate the roots of problematic behavior in children, given assumptions that poor-quality parenting promoted behavioral dysfunction, which then contributed in adulthood to problematic parenting and, thereby, behavior problems in the next generation (e.g., Bailey, Hill, Oesterle, & Hawkins, 2009; Caspi & Elder, 1988; Neppl, Conger, Scaramella, & Ontai, 2009; Serbin & Karp, 2003). In view of this theoretical framework, most intergenerational transmission research has focused upon harsh and unsupportive parenting that might or might not qualify as abusive (Capaldi, Pears, Patterson, & Owen, 2003; Conger, Nell, Kim, & Scaramella, 2003; Huesmann, Eron, Lefkowitz, & Walder, 1984), though recently supportive, developmentally facilitative parenting has become a focus of inquiry as well (Belsky, Jaffee, Sligo, Woodward, & Silva, 2005; Chen & Kaplan, 2001; Kerr, Capaldi, Pears, & Owen, 2009; Thornberry, Freeman-Gallant, Lizotte, Krohn, & Smith, 2003).

In 2009, a special section of this journal showcased empirical advances being made in research on the intergenerational transmission of parenting (Belsky, Conger, & Capaldi, 2009; Conger, Belsky & Capaldi, 2009). These derived from prospective studies longitudinally following children or adolescents into adulthood rather than relying on retrospective reports of child-rearing history, as was once common (Belsky, 1978). The latter are known to be subject to measurement problems, most notably recall bias (Belsky, 1993; Hardt & Rutter, 2004; Van IJzendoorn, 1992). Another substantial advance was the focus on mediating mechanisms accounting for how rearing experience in one generation comes to influence parenting in the next generation (e.g., Neppl et al., 2009; Shaffer, Burt, Obradović, Herbers, & Masten, 2009). Despite these advances, the need for additional work was highlighted by the editors of the special section in their introductory essay overviewing the published articles: "Perhaps most noteworthy... is ... the need for more work addressing factors that moderate the intergenerational transmission process, thereby illuminating 'lawful discontinuity,' or when and why parenting experienced in one generation is not repeated in the next" (Belsky et al., 2009, p. 1203; emphasis added).

It was not claimed that the issue of the nontransmission of parenting across generations had not been investigated (for review, see Belsky & Jaffee, 2006), only that it had been quite some time since much progress had been made. A number of studies have, for example, called attention to what might be regarded as "emotionally corrective" relationship experiences in breaking the (intergenerational) cycle of abusive or poor parenting. Thus, more than 25 years ago Quinton and Rutter (1984) reported that a high-quality intimate relationship played a role in reducing the risk of problematic rearing being transmitted across generations in their study of English girls reared in residential institutions. Around the same time Egeland, Jacobvitz, and Papatola (1987) found that mistreated children—so classified on the basis of retrospective reports of childhood rearing experience-who did not mistreat their own offspring had experienced supportive close relationships somewhere along their life-course journey, some with a therapist, others with a romantic partner. We sought to extend work on moderators of the intergenerational transmission process by focusing on a factor not heretofore considered in the research literature, namely, the age of the parent. We sought to test the hypothesis that parents who defer parenting-voluntarily or otherwise-until they are older are less likely to have their parenting shaped by their own rearing experiences in childhood. Importantly, we deferred consideration of any social, psychological, or other processes that might account for such age-moderated effects, should they be found, until age moderation could be documented.

## Parental Age as a Moderator of Intergenerational Transmission

Well appreciated today is that in the Western world adults are deferring the transition to parenthood, sometimes into the fifth decade of life. For example, national data on births in the United States show that in 2009 birth rates for women aged 20–24 declined 7%, compared with just a year earlier. This was the largest decline among this age group seen since 1973 (Hamilton,

Martin, & Ventura, 2010; National Center for Health Statistics, 2003). In addition, birth rates among women aged 25–29 decreased by 4%, and those for women 30–34 and 35–39 decreased by 2% and 1%, respectively. Birth rates for women 40–44, however, increased by 3%.

One of the unremarked characteristics of the new generation of prospective longitudinal studies of the intergenerational transmission of parenting is that it has focused mostly on parents who were relatively young, even if not teenagers, when they become parents. This is no doubt due in part to the fact that individuals whose rearing experience has been measured and who become parents in their teens and early 20s become available for investigating the intergenerational transmission of parenting earlier than do other participants in longitudinal research who eventually become parents at older ages. Consider in this regard that the age of those parents studied in three of the five articles included in the special section of this journal averaged 21 (Kovan, Chung, & Sroufe, 2009), 22 (Neppl et al., 2009) and 23 years of age (Shaffer et al., 2009); the other two reports either did not specify age (Kerr et al., 2009) or it proved difficult to determine, given the information provided (Bailey et al., 2009).

The fact that so many parents included in even the most recent prospective studies of the intergenerational transmission of parenthood became parents at a rather young age could conceivably influence the results of such studies, and this is due to longstanding evidence that younger parents provide, on average, less developmentally facilitative parenting than do older ones. Ragozin, Kahsam, Crnic, Greenberg, & Robinson, (1982) observed, for example, that older mothers of 4-month-old infants spent less time away from their child and reported greater satisfaction in their role as a parent than did younger mothers. These effects of maternal age could not be accounted for by maternal education, parity, gestational age, or income. Older mothers have also been observed to use more direct praise and express more physical affection toward their toddlers than do younger ones, even after taking into account socioeconomic status, maternal education, ethnicity, intelligence, social desirability, child age, and language competence (Bornstein & Putnick, 2007). A final illustration reveals that older mothers tend to be more tolerant of especially needy children (Beaulieu & Bugental, 2008).

These observations—that (a) younger parents parent differently from older ones and (b) it is the former who populate prospective studies of the intergenerational transmission of parenting—raise the possibility that such investigations may overestimate the degree to which child- and adolescent-rearing experiences forecast the parenting of these individuals when they are adults. It certainly seems conceivable that as more time—as well as life experiences passes before individuals become parents, thereby increasing the separation between the time of rearing in the family of origin and of procreation, that the legacy of one's rearing history could become less influential. Belsky (1984) proposed, in fact, that one reason older parents provide more sensitive, supportive care is because they are psychologically more mature. This could enable them to distance themselves from and gain perspective on their own rearing experiences, making them less susceptible to them. Certainly consistent with the notion that age can serve as a proxy for maturation is Roberts, Caspi, and Moffitt's (2001, p. 680) conclusion that "the period from 18 to 26 is characterized by increasing psychological maturity" upon chronicling increases in self-control and decreases in negative emotionality among the very New Zealand birth cohort from which the present report is drawn. Perhaps even more noteworthy is evidence from a meta-analysis of 92 longitudinal studies of personality showing that individuals increase in both conscientiousness and emotional stability over time, especially during the young adulthood period from age 20 to 40 (Roberts, Walton, & Viechtbauer, 2006). Methodological factors could also contribute to attenuation in links between early rearing experiences and one's own parenting in adulthood; after all, it is widely appreciated that as time between the measurement of predictor and outcome increases, predictive links tend to weaken.

#### **Current Study**

To test the proposition that the age when an individual becomes a parent for the first time might moderate the intergenerational transmission process, we analyzed observational data on parenting that we have been collecting for close to two decades as part of the Dunedin Multidisciplinary Health and Development Study (Silva & Stanton, 1996), a birth cohort study (N = 1,037) involving 91% of all children born between April 1972 and March 1973 in the southern New Zealand town of Dunedin. The larger cohort on which our sample is based represents the full range of socioeconomic status in the general population of New Zealand's southern island. When study members were 32 years of age, 95.8% of the 1,015 still alive in 2004–2005 participated in its most recently completed data collection. The participation rate for the ongoing data collection at age 38 is expected to match this rate.

In an earlier report on some 227 study members who had become parents and averaged 23 years of age (range = 21-27) when their first child was born, we reported evidence that rearing and parent-child relationship experience measured during three developmental periods—the early childhood, middle-childhood and early adolescent years—predicted how some parents behaved when interacting across a series of structured and unstructured situations with their own 3-year-old children (Belsky et al., 2005). More specifically, after controlling for child positive and negative behavior in the observational context and relying on composite measures of (a) authoritarian and egalitarian parenting experienced at ages 3 and 5, (b) positive and negative family climate experienced at ages 7 and 9, and (c) family climate and child-parent attachment at ages 13 and 15, we found that a significant 15% of the variance in mother's warm-sensitive-stimulating parenting could be explained, though in the case of fathers, rearing history did not predict observed parenting behavior (i.e.,  $R^2 = .03$ ).

In the time since the data reported by Belsky et al. (2005) were analyzed, 273 additional cases of study members becoming parents at older ages have been added to the data set (148 mothers, 125 fathers)—representing some 90% of all study members who have become parents and have 3 years olds—though only 445 of this total are included in this report due to missing data on child-rearing history. These 445 comprise the analysis sample for this report. In the original sample, the 122 mothers and 79 fathers with complete data and included in the analysis of this report averaged, at the time of their first child's birth, respectively, 22.9 (SD = 2.8, range: 17–27) and 23.7 (SD = 2.4, range: 18–27) years of age, whereas the 130 mothers and 113 fathers added to these to make up this report's analysis sample averaged, respectively, 30.6 (SD = 3.8;

range: 27-34) and 30.7 (SD = 3.3; range: 26-33) years of age. The overwhelming majority of these parents were of New Zealand/ European ethnicity (92%), with most of the remainder Maori.

With these new cases in hand, we seemed well positioned, using all the same measurements of child-rearing history and observed child behavior and parenting that Belsky et al. (2005) relied upon, to (a) rerun the analyses reported in Table 3 of our earlier article showing how the six composite variables of child-rearing history predicted observed parenting net of child behavior, while (b) adding parental age and age-related interaction terms to determine whether effects of rearing history on parenting varied by the age of the parent when observed. Indeed, we did this two ways to reduce the risk of prematurely embracing the null hypothesis; we treated parental age one time as a continuous variable and one time as a categorical one, contrasting parents younger than or equal to 30 with those older than 30. There was no strong theoretical or empirical reason for using age 30 as a demarcation point other than that it afforded decent subsample sizes and is often regarded as a point in the life courses of many when life trajectories have been established. In any event, results proved exactly the same, no matter how age was treated.

Most notably, parental age did not moderate effects of childrearing history on parenting, except in a single instance—of six age-moderated interaction terms tested on mothers and six on fathers (see Table 1). Of note is that each of these age-moderated interactions was tested one at a time to maximize the likelihood of detecting effects. What this means, of course, is that when the p < .05 significance level was corrected for (just) the number of age-moderated interactions tested (.05/12 = .0042), even the single putatively significant interaction failed to meet criteria for significance. Table 1 presents findings from the original 2005 report and parallel results with the larger sample of 500.

Data pertaining to the main effects of rearing history using the larger sample that now included many more mothers and fathers who became parents at ages older than those included in the first report proved to be much like our original findings presented in Belsky et al. (2005). Adding, as main effects, the six child-rearing-history predictors to a regression equation that already included child-behavior predictors (and before including parental age and age-moderated interaction terms) increased variance accounted for in observed mothering by a significant 8.7%,  $\chi^2(6) = 34.49$ , p < .001, but an insignificant 2.0% in the case of fathering,  $\chi^2(6) = 4.51$ , p = .61.

#### Discussion

By repeating and extending analyses of the intergenerational transmission of parenting reported in 2005 with substantially more cases of participants who became parents at older ages, we sought to determine whether age of parent moderated the effect of childrearing history on parenting in adulthood. Our reasoning was straightforward: The older one is before becoming a parent, the more time and experience intervenes between one's childhood and parental status, perhaps attenuating the effect of any legacy of parenting experienced while growing up on parenting provided to one's own child. Conceivably this could be due to the fact that in many cases individuals mature psychologically as they age, perhaps affording the opportunity to reflect on one's childhood experiences and thus become less affected by them, should that be

Table 1
Regression of Observed Warm-Sensitive Parenting on Observed Child Behavior and Six Childrearing History Variables for Mothers and Fathers Less Than or Greater Than Age 30 Years on Date of Interview

	Mothers					Fathers				
	$Age \le 30$ $(n = 116)$		Age $> 30$ $(n = 137)$			$Age \le 30$ $(n = 73)$		Age $> 30$ $(n = 119)$		
Variable	β	p	β	p	Interaction <sup>a</sup> p	β	p	β	p	Interaction <sup>a</sup> p
Child positivity	.15	.065	.06	.407		.30	.017	02	.855	
Child negativity	43	<.001	58	<.001		14	.260	38	<.001	
Early childhood										
Egalitarianism	.01	.868	.11	.114	.847	.05	.697	13	.143	.204
Authoritarianism	28	.001	.01	.936	.005	07	.541	09	.293	.882
Middle childhood										
Positive family climate	.19	.038	.02	.826	.129	06	.706	.19	.062	.847
Negative discipline	05	.585	08	.245	.894	21	.152	.03	.712	.156
Early adolescence										
Parent-child attachment	.25	.004	.22	.003	.452	01	.927	.13	.170	.775
Positive family climate	17	.085	06	.496	.953	00	.996	15	.193	.435

<sup>&</sup>lt;sup>a</sup> p value from interaction term for Age  $\times$  Childrearing History. Interaction terms were added to the full regression model for each childrearing history variable individually.

desired. Alternatively or additionally, the greater time between the measurement of rearing experiences in childhood and parenting in adulthood could reduce links between predictor and outcomes for older parents relative to younger parents.

Despite the plausibility of these arguments, we found virtually no support for them, especially when the number of tests of age-moderated interactions pertaining to the intergenerational transmission of parenting was taken into consideration. Whether we treated age when one became a parent as a continuous variable or categorically distinguished those who became parents by age 30 or afterward, the evidence indicated that the apparent effects in this observational study of rearing history did not vary as a function of age when adults became parents. Because absence of evidence is not evidence of absence, caution is called for before concluding that age does not ever or at all moderate the intergenerational transmission process. We report these null results in hopes that this research note may stimulate others to address and even expand upon the question posed in the title of this article. With regard to the latter, there would certainly be merit in taking into consideration developmental experiences likely to facilitate psychological maturation (e.g., positive close personal relationships) rather than relying, as we have here, on age as proxy for maturation.

As we studied parenting in only a single New Zealand birth cohort when offspring were 3 years of age, there are certainly grounds for wondering whether the intergenerational transmission process might vary by parental age at other points in their offspring's development or when parenting is measured in other ways and/or in other places. We believe it would be misguided, however, to regard the setting of this research as a limiting factor vis-à-vis the generalizability of our findings. Moffitt and associates (2001, 2010) have repeatedly shown how similar New Zealand is to the United States in many important demographic and developmental respects, including rates of infant mortality and teenage pregnancy, prevalence of mental disorders in young adulthood, percentages of the population employed in the service and manufacturing sectors, and national standing on the UN Human Development Index.

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