

Perceived Parenting Skill Across the Transition to Adoptive Parenthood Among Lesbian, Gay, and Heterosexual Couples

Abbie E. Goldberg
Clark University

JuliAnna Z. Smith
University of Massachusetts Amherst

Little research has examined change in perceived parenting skill across the transition to parenthood or predictors of change in perceived skill. The current study used an ecological framework to examine predictors of self-perceived parenting skill among 47 lesbian, 31 gay, and 56 heterosexual couples who were adopting their first child. Findings revealed that, on average, all new parents perceived themselves as becoming more skilled, although gay men increased the most and lesbians the least. Participants who were female, reported fewer depressive symptoms, expected to do more child care, and reported higher job autonomy viewed themselves as more skilled pre-adoption. With regard to change, parents who reported more relational conflict and parents who expected to do more child care experienced lesser increases in perceived skill. These findings suggest that regardless of gender, sexual orientation, and route to parenthood, new parents experience similar, positive changes in perceived skill, thereby broadening our understanding of parenting skill in diverse groups. The findings also highlight the importance of examining how gender, sexual orientation, and the family context may shape perceived skill across the transition to parenthood.

Keywords: adoption, gay, lesbian, multilevel modeling, parenting skill, self-efficacy

According to Bandura (1989), if individuals judge themselves to be capable at performing a task, they will exert great effort to meet the challenges necessary for performing that task and will, therefore, be more skilled at it. Perceptions of self-efficacy are especially important in the parenting domain: Parents who feel efficacious in their ability to perform parenting tasks are more likely to be successful in the parenting role, and, in turn, parents who demonstrate competence in parenting will perceive themselves as more skilled. Parents who are more confident about their parenting abilities report greater parenting satisfaction (Brage Hudson, Elek, & Fleck, 2001) and are more involved with their children (Fagan & Barnett, 2003; Sanderson & Thompson, 2002). Further, in one of the few studies of perceived parenting skill across the transition to parenthood, McHale and Huston (1984) found that fathers who viewed

themselves as skilled at child care prenatally were more involved in child care. Williams et al. (1987) found that mothers who were more confident about their ability to care for their infants prenatally were more attached to their babies and more easily adjusted to motherhood.

Few studies have examined perceived parenting competence longitudinally. Those that do suggest that perceived parenting skill tends to increase across the transition to parenthood (Reece & Harkless, 1998). Unfortunately, only a handful of studies have gone beyond examining patterns of change to explore pre-birth factors as predictors of change (Porter & Hsu, 2003). Identifying such factors present in the pre-parenthood phase is of particular interest as they may be malleable to intervention (Coleman & Karraker, 2003), and knowledge of the factors that affect perceived parenting skill can inform assessment with at-risk families.

In addition, most studies of perceived parenting skill have been conducted on heterosexual mothers (Porter & Hsu, 2003) and sometimes heterosexual fathers (Brage Hudson et al., 2001). These studies have typically found that mothers feel more competent than fathers (Reece & Harkless, 1998), presumably because heterosexual women receive greater encouragement for their parental capabilities than heterosexual men (McBride et al., 2005). It is possible, however, that the gender differences in perceived skill that have been observed are a function of parenting in the context of heterosexual unions, such that men who parent with *women* show low perceived skill. Gender may in fact function differently for same-sex couples in that gender differentiates the partners within heterosexual couples, but not within gay and lesbian couples. Gay men may view themselves more

Abbie E. Goldberg, Department of Psychology, Clark University; JuliAnna Z. Smith, Center for Research on Families, University of Massachusetts Amherst.

This research was funded by the Wayne F. Placek award, from the American Psychological Foundation, and Grant# R03HD054394, from the Eunice Kennedy Shriver National Institute of Child Health & Human Development, both awarded to the first author. The authors would like to thank Stephen R. Marks, Ramona F. Oswald, and Maureen Perry-Jenkins for their comments on previous drafts of this manuscript, and Aline G. Sayer and Deborah A. Kashy for sharing their expertise on statistical approaches to analyzing dyads.

Correspondence concerning this article should be addressed to Abbie E. Goldberg, Ph.D., Department of Psychology, Clark University, 950 Main Street, Worcester MA 01610. E-mail: agoldberg@clarku.edu

positively than heterosexual men, in that their relational context does not prompt them to view their partners as the more highly skilled parent. Lesbians, however, may view themselves less positively than heterosexual women, given that they are evaluating their mothering capacities against a female partner's. In addition to relational context, heterosexism may also affect sexual minorities' perceived skill. Because sexual minorities become parents in a societal context that questions their right to parent (Stacey & Biblarz, 2001), both lesbians and gay men may internalize societal doubts about their parenting capacities, leading them to experience low levels of perceived skill.

To address these research gaps, we use a sample of lesbian, gay, and heterosexual couples to examine predictors of perceived parenting skill at child care tasks across the transition to adoptive parenthood. Our study is framed by an ecological perspective, which views development as occurring within multiple interacting contexts (Bronfenbrenner, 1986) and conceptualizes developmental processes and outcomes as a joint function of the characteristics of the person and their environment. Thus, perceived skill is shaped not only by parents' personal characteristics (e.g., education level) but by the overlapping contexts in which they live (e.g., family and work).

It is important to note that research has tended to focus more on personal characteristics as correlates of perceived skill and less on aspects of the family and work domains. One personal characteristic that studies have often examined in relation to perceived skill is parental *education*; however, these studies have yielded mixed findings. Some show that more educated mothers feel more competent at child care (Teti & Gelfand, 1991; Zahr, 1991), while others (Hess, Teti, & Hussey-Gardner, 2004) show no association between education and perceived skill. Studies have also examined the relationship between *depressive symptoms* and perceived skill. These studies generally find that mothers with more depressive symptoms feel less confident about their parenting abilities (Teti & Gelfand, 1991). Further, Porter and Hsu (2003) studied mothers only and found that high prenatal depressive symptoms were associated with low perceived skill at infant care one month postbirth, although prenatal depressive symptoms were unrelated to perceived skill three months postbirth.

Although research has less frequently examined the family context in relation to perceived skill, some studies suggest that aspects of the couple relationship and the division of childcare may have implications for perceived skill. Some research suggests that individuals who report higher *intimate relationship quality* report more confidence in their skills as parents (Porter & Hsu, 2003; Reece & Harkless, 1998). For example, Porter and Hsu (2003) found that, one month postpartum, mothers who reported more marital positivity also felt more skilled as parents. Indeed, people who evaluate their relationships more positively tend to receive more encouragement from their partners, which facilitates parental confidence. Conversely, persons who view their marriages as conflictual tend to report low support in their relationships as coparents (Katz & Gottman, 1996), which may undermine parental self-efficacy. Child care involve-

ment has also been linked to perceived skill (Fagan & Barnett, 2003; Sanderson & Thompson, 2002), such that parents who feel more skilled do more care and that doing more care reinforces parents' sense of competence. Although no research has explored the association between *expected child care involvement* and perceived skill, it is plausible that persons who expect to be highly involved might be motivated to perceive themselves as more skilled. Likewise, these individuals might also experience greater increases in perceived skill, in that persons who expect to do high levels of care often engage in high levels of care (Nicolson, 1990), which, in turn, facilitates parental confidence.

Parents' involvement in work *outside* the home may also shape their perceived skill. Although researchers have studied many aspects of work-family relationships, few have examined the work context in relation to perceived parenting skill, with the exception of Cinamon, Weisel, and Tzuk (2007), who found that parents who perceived more family-work conflict felt less efficacious as parents. It is possible that a high number of *work hours* might intensify feelings of conflict and lead to reduced self-efficacy. Or, work hours might indirectly affect perceived skill by limiting the amount of time with one's child or reducing one's energy for one's child. Perhaps even more important than job hours is the amount of *autonomy* parents have in their jobs, or the degree to which their jobs allow them freedom to schedule work, make decisions, and select the methods used to perform tasks (Hackman & Oldham, 1975). Job autonomy facilitates work related self-efficacy (Paglis & Green, 2002) and general self-efficacy (Gecas & Seff, 1989). Further, people who perceive greater autonomy at work tend to have similar perceptions of home (Champoux, 1978). Thus, persons who enjoy more autonomy at work may experience more self-efficacy at home, such that these persons feel more efficacious as parents.

Guided by an ecological framework and the existing literature, we use two waves of data to explore (a) whether sexual orientation (heterosexual versus same-sex), gender, and their interaction predict initial level of and change in perceived skill across the transition to adoptive parenthood; and (b) whether personal characteristics (education, depressive symptoms), the family context (conflict, expected division of child care), and the work context (hours, job autonomy) predict initial level of and change in perceived skill, controlling for the other predictors in the model. With regard to (a), we expect that women will have more positive perceptions of their skill initially and will show more of an increase in perceived skill, compared with men; however, we expect that parenting within a same-sex relationship will have different effects on men and women. Specifically, it will enhance gay men's perceptions of their skill (i.e., they will have higher initial perceived skill and show greater increases in perceived skill compared with heterosexual men), whereas it will lessen lesbians' perceptions of their skill (i.e., they will have lower initial perceived skill and show lesser increases compared with heterosexual women). With regard to (b), we expect that low depressive symptoms, low conflict, a high proportion of ex-

pected care, fewer work hours, and high job autonomy will be related to higher initial perceived skill and greater increases in perceived skill across the transition to parenthood. The unique effects of these predictors were explored in a regression analysis.

Method

Sample

The current study includes 47 lesbian, 31 gay male, and 56 heterosexual couples who were interviewed before and after they adopted their first child. Couples' mean annual family income (i.e., the sum of both partners' self-reported personal income) was \$124,745 (median = \$110,000, $SD = \$61,724$, range \$42,600–\$418,500) and couples' average relationship length (i.e., length of time in current committed relationship) was 8.32 years ($SD = 4.00$). On average, participants were 38.08 years old ($SD = 3.62$); this is consistent with the demographic profile of adoptive parents in prior studies (Daniluk & Hurtig-Mitchell, 2003). A MANOVA was used to determine whether family income and relationship duration varied by family type (lesbian, gay, heterosexual) and a univariate ANOVA was used to determine whether age varied by group (lesbian, gay, heterosexual women, heterosexual men). These findings were then verified using multilevel models. Family income significantly differed by family type, $F(2, 131) = 3.71, p < .01$. Post hoc Tukey's tests indicated that gay male couples had a significantly higher income (\$158,983; $SD = \$67,679$) compared with heterosexual couples (\$118,027; $SD = \$60,239$) and lesbian couples (\$110,610; $SD = \$51,736$). These couples are more affluent than national estimates of adoptive couples (mean family income = \$102,000 for same-sex couples and \$82,000 for heterosexual married couples; Gates, Badgett, Macomber, & Chambers, 2007). Relationship duration did not differ by family type and age did not differ by group.

Chi square tests revealed that adoption type differed by family type, $\chi^2(3, 134) = 17.08, p < .001$. Follow-up multiple comparison tests showed that heterosexual couples were more likely to use international adoption than gay couples, $\chi^2(1, 87) = 6.59, p < .01$. Heterosexual couples were less likely to use public adoption than gay couples, $\chi^2(1, 87) = 9.40, p < .01$, and lesbian couples, $\chi^2(1, 103) = 11.92, p < .001$. Sixty-three percent of heterosexual, 55% of lesbian, and 61% of gay couples pursued domestic private open adoptions; 9% of heterosexual, 28% of lesbian, and 29% of gay couples pursued domestic public adoptions; and 28% of heterosexual, 17% of lesbian, and 10% of gay couples did international adoptions. Age of child at time of placement did not differ by family type: 66% of children were under 1 month, 20% were 1–6 months, and 14% were 6–15 months when placed. Geographical region did not differ by family type. Forty-five percent of the sample lived on the East Coast, 32% on the West Coast, 14% in the South, and 9% in the Midwest.

Procedure

To be included in the study, couples had to be adopting their first child and both partners had to be first-time parents. We limited our sample to couples adopting children under 15 months, given the unique challenges of parenting infants. By only considering adoptive couples, we control for heterogeneity in how route to parenthood might influence perceived skill (sexual orientation is often confounded with route to parenthood, such that heterosexual couples are more often the biological parents of their children). Adoption agencies in the U.S. were asked to provide study information to clients who had not yet adopted. Census data were used to identify states with a high percentage of same-sex couples (Gates & Ost, 2004) and effort was made to contact agencies in those states. Over 30 agencies provided information to clients, often in the form of a brochure that invited them to participate in a study of the transition to adoptive parenthood, and clients contacted the researcher for details. Heterosexual and same-sex couples were targeted through agencies to facilitate similarity on geographical location and income. Because same-sex couples may not be "out" to their adoption agencies, organizations like the Human Rights Campaign, a national gay political organization, also assisted in disseminating information. For example, the HRC posted study details on their FamilyNet listserv, which is sent to 15,000 people per month.

Members of each couple were interviewed separately over the telephone, at pre-adoptive placement (Time 1 or T1) and post-placement (Time 2 or T2). At T1, all couples had completed their home study (a formal evaluation of the prospective adoptive family) and were waiting to be placed with a child. The T2 interview occurred three months after the couple was placed with a child. Interviews lasted 1–1.5 hours. At both time points, participants were sent a series of questionnaires to complete within a week of the interviews and to return in postage paid envelopes.

Measures

Outcome: Perceived skill at child care tasks. At T1 (pre-adoption) and T2 (post-adoption), participants were given a list of 14 child care tasks and asked to rate how skilled they believed they would be (T1) or were (T2) at each task (1 = *not skilled at all*, 2 = *somewhat skilled*, 3 = *skilled*, and 4 = *very skilled*; Barnett & Baruch, 1987). Tasks included playing with the baby, feeding the baby, changing the baby, and taking the baby to a doctor's appointment.

The original scale was divided into two parallel scales, both to enable a more accurate measure of change and to provide sufficient degrees of freedom to enable error to be estimated in the multilevel model (Raudenbush, Brennan, & Barnett, 1995). Items were assigned to the scales according to their standard deviations, to ensure that the scales would have comparable variances. As a result of this division, there were eight outcome scores per couple, two per partner per time point. Alphas were .73–.86 for heterosexual

women, .82–.88 for heterosexual men, .80–.88 for lesbians, and .79–.84 for gay men.

Sixteen percent of the sample ($n = 42$ partners) was missing outcome data at T2: 18 heterosexual partners (9 couples), 16 lesbians (8 couples), and 8 gay men (4 couples). Independent samples *t*-tests showed that persons with missing data did not differ from those with complete data on the outcome or predictor variables. The multilevel modeling procedure that was used accounts for missing data on the outcome through the use of full information estimates.

Sexual orientation. Sexual orientation was effects coded (*same-sex* = 1, *heterosexual* = -1).

Gender. Gender was effects coded (*female* = 1, *male* = -1).

Education. Education was coded 1–6 (1 = *less than high school*, 2 = *graduated high school*, 3 = *associates' degree/some college*, 4 = *college degree*, 5 = *master's degree*, 6 = *PhD/MD/JD*).

Depression. The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) was used to assess depressive symptoms. This 20-item scale has established validity and good internal consistency. Using a 4-point scale ranging from 0 (*rarely/none of the time*) to 3 (*most/all of the time*), participants considered the past week and estimated the frequency of feelings corresponding to statements like "I felt sad." T1 alphas for depressive symptoms were .84 for heterosexual women, .88 for heterosexual men, .83 for lesbian women, and .89 for gay men.

Relationship conflict. The 5-item conflict subscale from Braiker and Kelley's (1979) "Relationship Questionnaire" was used. Questions, such as "How often do you and your partner argue?", are answered on a 9-point scale (1 = *not at all/not very much* to 9 = *very much*). T1 alphas were .72 for heterosexual women, .70 for heterosexual men, .70 for lesbians, and .67 for gay men.

Contribution to child care tasks. Participants were given the same list of 14 tasks that they responded to with regard to skill (Barnett & Baruch, 1987). At T1, they rated their expected proportional contribution, and at T2, they rated their actual proportional contribution, using a 5-point scale: 1 = *usually/always my partner* (0–20% contribution) to 5 = *usually/always myself* (80–100%). T2 self-reported contribution to child care was used in follow-up analyses aimed at clarifying the relationship between expected contribution and perceived skill. T1 alphas were .87 for heterosexual women, .78 for heterosexual men, .82 for lesbians, and .77 for gay men. T2 alphas were .89 for heterosexual women, .86 for heterosexual men, .90 for lesbians, and .73 for gay men.

Job autonomy. Job autonomy was assessed using an 18-item scale that assesses the degree to which a job is challenging, autonomous, and self-directed (Greenberger, O'Neil, & Nagel, 1994). Items, such as "I have a lot of control over the way I use my time while I'm at work," are responded to on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). Alphas were .81 for heterosexual women, .89 for heterosexual men, .88 for lesbians, and .89 for gay men.

Work hours. Participants' work hours per week were included as a predictor.

Analytic Strategy

In order to deal with the longitudinal nature of the design, multilevel modeling (MLM) was used to account for the shared variance of using repeated measures on the same individuals (Speer & Greenbaum, 1995). MLM also enables the examination of partners who are nested in couples, accounting for the lack of independence in their outcome scores (Raudenbush et al., 1995). MLM permits examination of the effects of individual and dyad level variables, accounts for the extent of the shared variance, provides accurate standard errors for testing the regression coefficients relating predictors to outcome scores, and accounts for missing data in the outcome.

An additional challenge is introduced when dyad members are indistinguishable, meaning that there is no meaningful way to differentiate between dyad members (e.g., male/female). To examine change over time in dyads in which gender was not always a distinguishing feature (as in same-sex couples), we employed a variation of the 2-level multilevel model generally used to examine change in distinguishable dyads, in which trajectories for both dyad members are modeled at Level 1. Similar to the 2-level model for distinguishable dyads, separate intercepts and slopes are modeled for each member, and partners' change parameters covary (Raudenbush et al., 1995). Due to the inability to distinguish between dyad members, however, parameter estimates for the intercept and slope are pooled across partners as well as dyads (Kashy, Donnellan, Burt, & McGue, 2008). In addition, drawing from approaches to modeling indistinguishable dyads in structural equation modeling (Olsen & Kenny, 2006), equality constraints are placed on the variance components. The unconditional model with no predictors is:

Level 1 (within couples):

$$Y_{ijk} = \beta_{0ij} (\text{Part1}) + \beta_{1ij} (\text{Part1 Time})_{ijk} \\ + \beta_{02j} (\text{Part2}) + \beta_{11j} (\text{Part2 Time})_{2jk} + r_{ijk}$$

Level 2 (between couples):

$$\beta_{0ij} = \gamma_{00} + u_{0ij}$$

$$\beta_{1ij} = \gamma_{10} + u_{1ij}$$

where Y_{ijk} represents the perceived parenting skill score of partner i in dyad j at time k , where $i = 1, 2$ for the two members of the dyad.

In this model, intercepts and slopes can vary both within and between dyads. The inability to meaningfully distinguish between dyad members would make it meaningless to have separate parameter estimates for member 1 and member 2; therefore, the parameter estimates for the fixed effects are aggregated across dyad members and dyads to provide a single estimate for the average intercept, γ_{00} , and for the average slope, γ_{10} , at Level 2. For the same reason, it would be meaningless to have a variance for member 1 and another for member 2; as a consequence, the random effects are

constrained to be equal for dyad members. Three random effects are estimated. At Level 2, the variance in the intercept, $\text{Var}(u_{0ij})$, represents the variability in initial perceived skill, and the variance in the slopes, $\text{Var}(u_{1ij})$, represents the variability in how perceived skill changes over time. The third variance component, $\text{Var}(r_{ijk})$, is the variance of the Level-1 residuals (or the difference between the observed values of perceived skill and the predicted values). The variance of the Level-1 residuals was constrained to be equal for both partners and across all time points.

With only two time points at Level 1, there would be too few degrees of freedom to estimate an intercept, rate of change, and random effects, unless additional information on the outcome was provided. Consequently, the outcome measure was divided into two parallel scales, allowing for the estimation of error (Raudenbush et al., 1995). In addition, the parallel scales provide a limited measurement component to the multilevel model and, as a consequence, a more accurate measure of both error and latent change scores. Time was centered at the initial assessment point, thereby allowing us to examine predictors of initial perceived skill (i.e., before the adoption) and change in perceived skill across the transition to parenthood.

All models were fit using the software program SAS using full maximum likelihood estimation. We first fit an unconditional model that estimated average initial status and change across the sample (Model 1). Next, we added gender and sexual orientation and the interaction between them to the model (Model 2). Finally, other predictors of perceived skill (personal characteristics, family characteristics, and work characteristics) were considered (Model 3). In all models, there were 268 participants nested within 134 couples. All continuous predictors were mean-centered and dichotomous predictors were effects coded. We interpret trends only for p -values less than .07.

Results

Table 1 presents means and standard deviations for the continuous predictor variables. MANOVAs were used to determine whether predictor variables differed by group (Table 1). These findings were then verified using multilevel models. Expected contribution to child care differed by group: Heterosexual men expected to do less than heterosexual women, lesbians, and gay men; and gay men expected to do less than heterosexual women. Proportional contribution to care at T2 also differed by group: Heterosexual men reported doing less than heterosexual women, lesbians, and gay men; and gay men and lesbians reported doing less than heterosexual women. Work hours per week also differed by group. Lesbians and heterosexual women worked fewer hours than heterosexual men, and heterosexual women worked fewer hours than gay men. No group differences were found for education, depressive symptoms, conflict, or job autonomy. Approximately one-fifth of the sample had clinically significant levels of depressive symptoms. Specifically, 20% of lesbians, 19% of gay men, 18% of heterosexual women, and 23% of heterosexual men had CES-D scores of 16 or greater.

Predicting Perceived Skill

Initial perceived skill and change in perceived skill by gender and sexual orientation. An unconditional model (with no predictors; Table 2, Model 1) indicated that, on average, perceived skill increased across the transition. Model comparison tests were conducted between models with a fixed and a random intercept and between those with a fixed and a random slope (Snijders & Bosker, 1999). Change in deviance indicated there to be significant variability in the level of perceived skill ($\chi^2 = 2718.1, df = 1, p < .001$) as well as in change in perceived skill ($\chi^2 = 292.0, df = 1, p < .001$). Next, gender, sexual orientation, and the interaction between them were added as predictors (Model 2). The interaction between gender, sexual orientation, and time was significant, such that lesbians increased the least rapidly and gay men increased the most rapidly (Figure 1). Using simple slopes to probe the interaction (Curran, Bauer, & Willoughby, 2006; Preacher, Curran, & Bauer, 2006) showed that perceived skill was higher at T1 for women in both heterosexual ($\beta = .24, SE = .04, p < .001$) and same-sex couples ($\beta = .18, SE = .05, p < .001$) and at T2 for women in heterosexual couples only ($\beta = .27, SE = .06, p < .001$). Women's perceived skill did not vary by sexual orientation at either T1 or T2, but gay men's perceived skill was higher than heterosexual men's at the level of a trend at T1 ($\beta = .10, SE = .05, p = .05$) and significantly higher at T2 ($\beta = .16, SE = .05, p < .001$).

Predictors of initial perceived skill. Predictors of interest were added to the above model (Model 3, Table 2). With regard to personal characteristics, the effect of depressive symptoms was significant, such that persons with more depressive symptoms perceived themselves as less skilled, controlling for the other predictors in the model. The effect of education was nonsignificant. With regard to the family context, expected contribution to child care was related to initial perceived skill, at the level of a trend ($p = .06$), such that persons who expected to do higher levels of child care perceived themselves as more skilled pre-adoption, controlling for the other predictors in the model. Conflict was unrelated to perceived skill. With regard to the work context, job autonomy was related to initial perceived skill, at the level of a trend ($p = .06$), such that persons who reported greater autonomy saw themselves as more skilled, controlling for the other predictors. Work hours were unrelated to initial perceived skill.

Predictors of change in perceived skill. With regard to change, the interaction between gender and sexual orientation was retained. With regard to personal characteristics, neither depressive symptoms nor education were significant predictors of change in perceived skill. Turning to the family context, expected child care involvement was related to change in perceived skill, controlling for the other predictors, but in the opposite direction than expected: persons who expected to do more care experienced lesser increases in perceived skill. Relationship conflict was also a significant predictor of change in perceived skill, controlling for the other predictors, such that partners who reported higher levels of conflict showed greater increases in perceived

Table 1
Means and Standard Deviations for Predictor Variables Using MANOVAs

	Lesbians (1) (M, SD)	Gay men (2) (M, SD)	Hetero women (3) (M, SD)	Hetero men (4) (M, SD)	Multivariate MANOVA	Follow-up univariate ANOVAs	Post hoc (Tukey)
Education	4.40 (1.04)	4.31 (1.21)	4.48 (1.03)	4.19 (1.05)	$F(3, 264) = .58,$ $p > .05$	$F(3, 264) = .74,$ $p > .05$	
Depressive sx	9 (4)	10 (8)	10 (7)	10 (8)		$F(3, 264) = .11,$ $p > .05$	
Conflict	3.62 (1.22)	3.72 (.96)	3.72 (1.26)	3.38 (1.10)		$F(3, 264) = 1.08,$ $p > .05$	
Expected contribution to child care (T1)	3.27 (.51)	3.18 (.36)	3.56 (.42)	2.79 (.31)	$F(3, 222) = 15.98,$ $p < .001$	$F(3, 222) = 14.21,$ $p < .001$	2 < 3** 4 < 1*** 4 < 2*** 4 < 3***
Contribution to child care (T2)	3.37 (.65)	3.27 (.50)	3.80 (.47)	2.62 (.51)		$F(3, 222) = 19.35,$ $p < .001$	1 < 3** 2 < 3** 4 < 1*** 4 < 2*** 4 < 3***
Job autonomy	3.87 (.60)	3.89 (.58)	3.89 (.56)	3.80 (.62)	$F(3, 264) = 3.43,$ $p < .01$	$F(3, 264) = .29,$ $p > .05$	1 < 4** 3 < 2*
Work hours (per week)	39.15 (10.93)	42.54 (9.07)	36.00 (12.24)	44.88 (9.42)		$F(3, 264) = 6.46,$ $p < .001$	3 < 4** 3 < 4**

Note. The numbers in parentheses in column heads refer to the numbers used for illustrating significant differences in the last column titled "post hoc." The "post hoc" column indicates significant group differences according to post hoc Tukey tests. Since neither MANOVAs nor ANOVAs take into account the dependent nature of the data, all mean differences were verified using MLM.

Table 2
Predictors of Initial Perceived Skill and Change in Perceived Skill Across the Transition to Parenthood

	Model 1 (Baseline) γ (SE)	Model 2 (Gender and sexual orientation) γ (SE)	Model 3 (Major predictors) γ (SE)
Intercept	2.94 (.04)***	2.91 (.04)***	2.92 (.03)***
Gender		.21 (.03)***	.18 (.04)***
Sexual orientation		.06 (.03)	.06 (.03)*
Gender \times Sexual orientation		-.03 (.03)	-.02 (.03)
Education			-.04 (.03)
Depressive symptoms			-.26 (.09)**
Conflict			.05 (.03)
Expected contribution to child care			.13 (.06) ⁺
Job autonomy			.11 (.05) ⁺
Work hours			-.001 (.003)
Slope	.43 (.04)***	.45 (.04)***	.45 (.03)***
Gender		-.05 (.04)	-.02 (.04)
Sexual orientation		-.02 (.04)	-.01 (.03)
Gender \times Sexual orientation		-.08 (.03)*	-.11 (.04)**
Education			.01 (.03)
Depressive symptoms			-.001 (.09)
Conflict			-.08 (.03)**
Expected contribution to child care			-.19 (.08)*
Job autonomy			-.07 (.06)
Work hours			-.004 (.003)
Random effects			
Variance in intercept (<i>Estimate, SE</i>)	.28 (.03)***	.23 (.02)***	.22 (.02)***
Variance in slopes (<i>Estimate, SE</i>)	.19 (.03)***	.18 (.03)**	.16 (.02)***
Level 1 variance (<i>Estimate, SE</i>)	.05 (.004)***	.05 (.004)***	.05 (.004)***

⁺ $p < .07$. * $p < .05$. ** $p < .01$. *** $p < .001$.

skill. With regard to the work context, neither job autonomy nor work hours were related to change.

Follow-up analyses. Given the unexpected finding that higher expected contributions to child care were related to lesser increases in perceived skill, follow-up analyses were conducted. We surmised that the association between expected care contribution and change in perceived skill might be driven by violated expectations about child care: that is, persons who expected to do high amounts of care but ultimately did less than they expected might show less increase in perceived skill. Although violated expectations could not be meaningfully used to predict initial perceived skill, it could be included in the model to enable us to test whether it was related to change. Thus, a measure of violated expectations about child care was created by subtracting self-reported contribution to child care at T2 from expected contribution to care at T1. When violated expect-

tations was added to the full predictor model, it was not significantly related to change, either when expected contribution was included in the model as a control or when it was removed.

Discussion

This represents the first investigation of perceived parenting skill among heterosexual and same-sex couples across the transition to adoptive parenthood. In addition to examining predictors of perceived skill that have been identified in prior research, an ecological framework was used to identify potential predictors from social contexts beyond the individual, such as family and work.

In this study, both heterosexual and lesbian women initially viewed themselves as more skilled than men. This is consistent with prior research on heterosexual couples (Brage Hudson et al., 2001) and suggests that lesbians' socialization as women may be a more powerful influence on their parental confidence than societal stigmas regarding gay parenting. Indeed, women experience more opportunities to engage in child care and may receive more positive feedback about their care giving capacities once they become parents (McBride et al., 2005). Also, gay men initially saw themselves as more skilled than heterosexual men, which may reflect their differing relational contexts. Like heterosexual men, gay men have been exposed to societal messages regarding men's inferior parenting capacities (McBride et al., 2005). Yet, the fact that they are parenting with (and, therefore, comparing their skill level to) another man may lead them to evaluate their parenting capabilities more favorably.

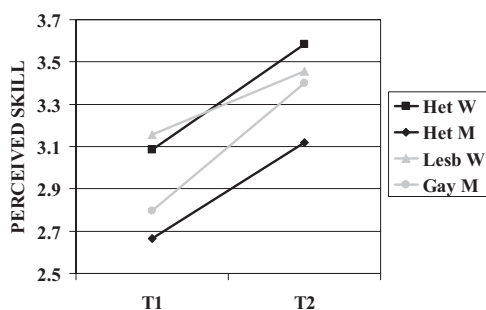


Figure 1. Interaction among gender and sexual orientation predicting change in perceived skill.

With regard to change in perceived skill, all new parents, on average, perceived themselves as becoming more skilled across the transition. This is consistent with research on biological first-time parents (Porter & Hsu, 2003) and suggests that, for many persons, on-the-ground experience is central to enhancing their parenting confidence. However, gay men increased the most and lesbians the least. It is possible that the experience of coparenting with another man, coupled with their experience of being both mother and father to their children, may lead gay men to develop greater confidence in their parenting skill over time. On the other hand, the experience of coparenting with another woman may lessen parental confidence. Sharing the mothering role can be challenging for lesbian partners, both of whom may feel pressure to embody intensive mothering ideologies and who may be jealous of their partner's apparent skill at child-rearing or their bond with the child (Goldberg, Downing, & Sauck, 2008). In turn, they may be somewhat more critical of their own parenting capacities over time, as they measure them against their female partners'. It is notable, however, that both lesbians and gay men became increasingly confident about their parenting skill over time, which can be viewed as a sign of resilience, given their exposure to societal stigmas that question their right to parent (Stacey & Biblarz, 2001).

Turning to the findings for personal characteristics, consistent with prior research (Porter & Hsu, 2003), persons with more depressive symptoms had less favorable perceptions of their child care skill pre-adoption, controlling for the other predictors. Depressed mood likely affects perceived skill through cognitions, such as negative self-attributions, such that depressed mood acts as a perceptual filter through which parenting experiences are anticipated (Teti & Gelfand, 1991). In that adoptive couples may be vulnerable to depressive symptoms during the pre-adoptive stage (e.g., because of a history of infertility or frustration with the adoption process; Goldberg & Smith, 2008), adoption practitioners should be sensitive to how depressed mood might impact parental confidence and, in turn, a range of family outcomes, including parental engagement (Jones & Prinz, 2005). Indeed, it is notable that the percentages of participants with depression scores at or above the clinical cut-off (18%–23%) exceed prevalence estimates for depression in the general population (10%–17%: Lepine, Gastpar, Mendlewicz, & Tylee, 1997; Riolo, Nguyen, Greden, & King, 2005), which may point to the stressful nature of the pre-adoptive stage. Yet, it should be kept in mind that while individuals with more depressive symptoms did start out with lower perceived skill, they experienced similar patterns of positive change in their perceived skill compared with persons with few depressive symptoms.

Expected child care involvement was related to perceived skill, such that participants who expected to do high levels of care perceived themselves as more skilled initially but experienced lesser increases in their perceived skill across the transition, controlling for the other predictors in the model. The latter finding can perhaps be interpreted in the context of the former: Persons who expected to do more had higher initial levels of perceived skill, so they ultimately

increased less in perceived skill (i.e., they had less room to "grow"). There was no evidence to suggest that lesser increases in perceived skill were associated with doing less child care than expected.

As expected, relationship conflict, another aspect of the family context, was related to change in perceived skill, controlling for the other predictors. Persons who view their relationships as highly conflictual pre-adoption likely receive less emotional support from their partners regarding their parental identities, which interferes with their ability to develop parenting confidence over time (Porter & Hsu, 2003). This finding supports and extends prior research showing that relationship quality and perceived parenting skill are often *concurrently* related (Porter & Hsu, 2003). Our discovery that pre-adoptive levels of relationship conflict are related to lesser increases in perceived skill suggests that interventions designed to enhance parental confidence should aim to support the couple relationship, ideally in the pre-parenthood stage (Schulz, Cowan, & Cowan, 2006).

Notably, qualitative aspects of work were related to perceived skill. Specifically, our finding that job autonomy was related to initial perceived skill, controlling for the other predictors in the model, extends prior research indicating that positive perceptions of work may have positive implications for perceptions of the home sphere (Champoux, 1978) and suggests that feelings of self-direction at work may have consequences for parents' self-efficacy as parents. Broadly, this finding implies that subjective experiences at work may indirectly shape a wide range of family outcomes (e.g., parenting satisfaction, parent-child relationships: Williams et al., 1987) by enhancing parenting self-efficacy. It should be kept in mind, though, that job autonomy and perceived skill were measured at the same time point, and, hence, directionality is unclear.

Future Directions & Conclusions

This study is limited in several ways. First, all variables were measured via self-report. The inclusion of observational measures and partner reports might yield different findings. Second, our measure of child care involvement assessed proportional contribution. Different findings might have been obtained had we assessed other aspects of involvement, such as expectations about the actual number of hours engaged in care. Indeed, most studies operationalize involvement as hours of care (Fagan & Barnett, 2003). Third, a positive response bias may have been introduced by a) the volunteer nature of the sample, and b) the fact that participants are adoptive parents. Both groups may tend to present themselves more positively than persons in the general population. Fourth, this study did not examine Time 2 (post-placement) predictors of perceived skill. It is possible that aspects of parenting, such as involvement in child care, are more important than pre-adoption factors, such as gender socialization, in determining perceived skill. Parents who are highly involved in parenting may develop greater confidence in their parenting capacities, regardless of gender. Future work should explore whether hours engaged in

child care are related to perceived skill during early parenthood.

There are also several factors that were not assessed, which may shape perceived skill. First, perceptions of children's characteristics are linked to perceived parenting skill, with parents who view their children as difficult viewing themselves as less skilled (Coleman & Karraker, 2003). In that children who are adopted may be more likely to manifest behavioral and emotional problems and many adoptive parents feel unprepared for such difficulties (Kramer & Houston, 1998), work that examines how parents' perceptions of their adopted children's characteristics shape their parental self-efficacy is needed. Second, prior child care experience has been linked to perceived parenting skill in new parents (Froman & Owen, 1990). It is possible that the gender differences in perceived skill that were observed in this study might be attributable to differences in experience with children. Third, we did not include an observational measure of parenting behavior; thus, it is unclear to what extent parents' perceptions of skill reflect their actual skillfulness, although a strong link between parenting self-efficacy and parenting practices has been established (Jones & Prinz, 2005). Finally, our study included only two time points. Research should follow parents beyond their initial adjustment to examine how perceived skill continues to evolve. New parents' feelings of inadequacy may persist over time and may interfere with parental involvement. Conversely, new parents who feel efficacious as parents may be less stressed by the challenges of parenthood and may be more likely to demonstrate competent parenting (Bandura, 1989). High self-efficacy may buffer parents from the effects of difficult child temperament by enhancing their capacity to persevere in the face of parenting challenges (Coleman & Karraker, 2003).

The current study makes several key contributions. First, our findings suggest that, regardless of gender, sexual orientation, and route to parenthood (biological versus adoptive), new parents experience similar increases in perceived skill across the transition to parenthood, although lesbians may show the least increase and gay men the most. This finding points to the fact that, while broad "universal" patterns may characterize the majority of new parents, new parents' experiences may also be shaped by their gender and sexual orientation. Second, our findings point to the importance of considering how both the family and work contexts, and particularly the family context, may shape the development of perceived parenting skill. Future research should examine other dimensions of the family context in relation to perceived skill. Finally, these findings have broad implications for the nature and timing of intervention efforts, in that they may help to identify those prospective parents at risk for perceived inadequacy and, in turn, parenting stress and ineffective parenting.

References

- Bandura, A. (1989). Regulation of cognitive processes through perceived self-efficacy. *Developmental Psychology, 25*, 729–735.
- Barnett, R., & Baruch, G. (1987). Determinants of fathers' participation in family work. *Journal of Marriage and the Family, 49*, 29–40.
- Brage Hudson, D., Elek, S. M., & Fleck, M. (2001). First-time mothers' and fathers' transition to parenthood: Infant care self-efficacy, parenting satisfaction, and infant sex. *Issues in Comprehensive Pediatric Nursing, 24*, 31–43.
- Braiker, H., & Kelley, H. (1979). Conflict in the development of close relationships. In R. Burgess & T. Huston (Eds.), *Social change in developing relationships* (pp. 135–168). New York: Academic Press.
- Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology, 22*, 723–742.
- Champoux, J. E. (1978). Perceptions of work and nonwork: A reexamination of the compensatory and spillover models. *Sociology of Work & Occupations, 5*, 402–422.
- Cinamon, R., Weisel, A., & Tzuk, K. (2007). Work-family conflict within the family: Crossover effects, perceived parent-child interaction quality, parental self-efficacy, and life role attributions. *Journal of Career Development, 34*, 79–100.
- Coleman, P., & Karraker, K. (2003). Maternal self-efficacy beliefs, competence in parenting, and toddlers' behavior and developmental status. *Infant Mental Health Journal, 24*, 126–148.
- Curran, P. J., Bauer, D. J., & Willoughby, M. T. (2006). Testing and probing interactions in hierarchical linear growth models. In C. S. Bergeman & S. M. Boker (Eds.), *The Notre Dame series on quantitative methodology, volume 1: Methodological issues in aging research* (pp. 99–129). Mahwah, NJ: Erlbaum.
- Daniluk, J. C., & Hurtig-Mitchell, J. (2003). Themes of hope and healing: Infertile couples' experiences of adoption. *Journal of Counseling and Development, 81*, 389–399.
- Fagan, J., & Barnett, M. (2003). The relationship between maternal gatekeeping, paternal competence, mothers' attitudes about the father role, and father involvement. *Journal of Family Issues, 24*, 1020–1043.
- Froman, R. D., & Owen, S. V. (1990). Mothers' and nurses' perceptions of infant care skills. *Research in Nursing & Health, 13*, 247–253.
- Gates, G., Badgett, M. V. L., Mocomber, J. E., & Chambers, K. (2007). *Adoption and foster care by gay and lesbian parents in the United States*. Washington, DC: The Urban Institute.
- Gates, G., & Ost, J. (2004). *The gay and lesbian atlas*. Washington, DC: Urban Institute Press.
- Gecas, V., & Seff, M. A. (1989). Social class, occupational conditions, and self-esteem. *Sociological Perspectives, 32*, 353–364.
- Goldberg, A. E., Downing, J. B., & Sauck, C. C. (2008). Perceptions of children's parental preferences in lesbian two-mother households. *Journal of Marriage & Family, 70*, 419–34.
- Goldberg, A. E., & Smith, J. Z. (2008). Social support and well-being in lesbian and heterosexual preadoptive couples. *Family Relations, 57*, 281–291.
- Greenberger, E., O'Neil, R., & Nagel, S. K. (1994). Linking workplace and homeplace: Relations between the nature of adults' work and their parenting behaviors. *Developmental Psychology, 30*, 990–1002.
- Hackman, J. R., & Oldham, G. R. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology, 60*, 159–170.
- Hess, C., Teti, D., & Hussey-Gardner, B. (2004). Self-efficacy and parenting of high-risk infants: The moderating role of parent knowledge of infant development. *Applied Developmental Psychology, 25*, 4230–437.
- Jones, T. L., & Prinz, R. J. (2005). Potential roles of parental

- self-efficacy in parent and child adjustment: A review. *Clinical Psychology Review*, 25, 341–363.
- Kashy, D. A., Donnellan, M. B., Burt, S. A., & McGue, M. (2008). Growth curve models for indistinguishable dyads using multi-level modeling and structural equation modeling: The case of adolescent twins' conflict with their mothers. *Developmental Psychology*, 44, 316–329.
- Katz, L., & Gottman, J. (1996). Spillover effects of marital conflict: In search of parenting and coparenting mechanisms. In J. McHale & P. Cowan (Eds.), *Understanding how family-level dynamics affect children's development* (pp. 57–76). San Francisco: Jossey-Bass.
- Kramer, L., & Houston, D. (1998). Supporting families as they adopt children with special needs. *Family Relations*, 47, 423–432.
- Lepine, J. P., Glastpar, M., Mendlewicz, J., & Tylee, A. (1997). Depression in the community: The first pan-European DEPRES (Depression Research in European Society). *International Clinical Psychopharmacology*, 12, 19–29.
- McBride, B. A., Brown, G. L., Bost, K. K., Shin, N., Vaughn, B., & Korth, B. (2005). Paternal identity, maternal gatekeeping, and father involvement. *Family Relations*, 54, 360–372.
- McHale, S. M., & Huston, T. L. (1984). Men and women as parents: Sex role orientations, employment, and parental roles with infants. *Child Development*, 55, 1349–1361.
- Nicolson, P. (1990). A brief report of women's expectations of men's behavior across the transition to parenthood: Contradictions and conflicts for counseling psychology practice. *Counseling Psychology Quarterly*, 3, 353–361.
- Olsen, J. A., & Kenny, D. A. (2006). Structural equation modeling with interchangeable dyads. *Psychological Methods*, 11, 127–141.
- Paglis, L. L., & Green, S. G. (2002). Leadership self-efficacy and managers' motivation for leading change. *Journal of Organizational Behavior*, 23, 215–235.
- Porter, C. L., & Hsu, H. (2003). First-time mothers' perceptions of efficacy during the transition to motherhood: Links to infant temperament. *Journal of Family Psychology*, 17, 54–64.
- Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational tools for probing interaction effects in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics*, 31, 437–448.
- Radloff, L. (1977). A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385–402.
- Raudenbush, S., Brennan, R., & Barnett, R. (1995). A multivariate hierarchical model for studying psychological change within married couples. *Journal of Family Psychology*, 9, 161–174.
- Reece, S. M., & Harkless, G. (1998). Self-efficacy, stress, and parental adaptations: Applications to the care of childbearing families. *Journal of Family Nursing*, 4, 198–215.
- Riolo, S. A., Nguyen, T. A., Greden, J. F., & King, C. A. (2005). Prevalence of depression by race/ethnicity: Findings from the National Health and Nutrition Examination Survey III. *American Journal of Public Health*, 95, 998–1000.
- Sanderson, S., & Thompson, V. L. S. (2002). Factors associated with perceived paternal involvement in childrearing. *Sex Roles*, 56, 99–111.
- Schulz, M. S., Cowan, C. P., & Cowan, P. A. (2006). Promoting healthy beginnings: A randomized controlled trial of a preventive intervention to preserve marital quality during the transition to parenthood. *Journal of Consulting & Clinical Psychology*, 74, 20–31.
- Snijders, T. A. B., & Bosker, R. J. (1999). *Multilevel analysis*. Thousand Oaks, CA: Sage.
- Speer, D., & Greenbaum, P. (1995). Five methods for computing significant individual client change and improvement rates: Support for an individual growth curve approach. *Journal of Consulting and Clinical Psychology*, 63, 1044–1048.
- Stacey, J., & Biblarz, T. (2001). (How) does the sexual orientation of parents matter? *American Sociological Review*, 66, 159–183.
- Teti, D., & Gelfand, D. (1991). Behavioral competence among mothers of infants in the first year: The meditational role of maternal self-efficacy. *Child Development*, 62, 918–929.
- Williams, T. M., Joy, L. A., Travis, L., Gotowiec, A., Blum-Steele, M., Aiken, L., et al. (1987). Transition to motherhood: A longitudinal study. *Infant Mental Health Journal*, 8, 251–265.
- Zahr, L. K. (1991). The relationship between maternal confidence and mother-infant behaviors in premature infants. *Research in Nursing & Health*, 14, 279–286.

Received December 15, 2008

Revision received June 12, 2009

Accepted June 12, 2009 ■