
Attachment style and coping resources as predictors of coping strategies in the transition to parenthood

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Abstract

The relations among adult attachment style, coping resources, appraised strain, and coping strategies were examined in a prospective study of married couples having their first child ($N = 92$). Attachment and coping resources were measured during the second trimester of pregnancy, and parenting strain and coping strategies were assessed when the babies were about 6 weeks old. Results supported a theoretical model proposing that attachment is predictive of coping resources and appraised strain, and that attachment, resources, and strain are predictive of coping strategies. Results also highlighted the complexity of associations among attachment, stress, and coping: Gender differences in mean scores and predictive associations were obtained, and some interactions were found between resources and strain in predicting coping strategies. The findings support the utility of integrating theories of attachment and coping in explaining couples' adjustment to important developmental transitions.

The transition to parenthood is one of the most precipitous and important changes that take place in marriage, and has accordingly been a topic of continuing interest (Belsky & Kelly, 1994; Cox, Paley, Burchinal, & Payne, 1999). Early research suggested that this transition is often experienced as a crisis (LeMasters, 1957), whereas more recent research has conceptualized it as a developmental phase characterized by pressures for personal, familial, and social change (Levy-Shiff, 1994). Many studies have shown that the transition to parenthood involves major changes to couple relationships. Generally, companionate activities decrease postnatally, whereas conflict increases and marital quality declines in many couples (Belsky & Pensky, 1988; Huston & Vangelisti, 1995). Issues of partners'

attachment security are likely to become particularly salient at this time: The couple relationship must accommodate the presence of a new and highly dependent individual, and substantial changes may take place in the attachment system and the related behavioral systems of caregiving and sexuality (Hazan & Shaver, 1994).

Based on this view of new parenthood as a developmental phase requiring adaptive change, recent research has focused on variability in couples' adjustment. It has become clear that, whereas the "average" pattern involves small but reliable declines in marital satisfaction and individual well-being, for many couples these variables remain stable and for some couples marital satisfaction actually increases (Belsky & Rovine, 1990; Terry, McHugh, & Noller, 1991). Variables that predict adjustment include infant temperament (Klennert, Gavin, Wamboldt, & Mrazek, 1992; Levy-Shiff, 1994), satisfaction with task allocation and

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performance (Hackel & Ruble, 1992; Terry et al., 1991), depression (Cox et al., 1999), self-esteem (Belsky & Rovine, 1990), problem-solving competence (Cox et al., 1999), family of origin experiences (Belsky & Isabella, 1985), new mothers' adult attachment styles (Mikulincer & Florian, 1998), and coping strategies (Terry, 1991a). Further, some of these variables appear to have interactive effects (Osofsky & Culp, 1993). Hence, an important research task is to identify how the many relevant variables work together to shape the trajectory of adaptation for new parents (Cox et al., 1999).

The Attachment System and Stressful Events

Adult attachment theory provides an organizing framework for integrating current findings and driving future research on adjustment to parenthood. Attachment processes, being rooted in early experiences of interactions with caregivers, are fundamental to personal and social development. Consistent with this claim, adult attachment security is a powerful predictor of individual and couple functioning (Feeney & Noller, 1996); it is also systematically related to most of the variables that predict adjustment to parenthood, and can be seen as *developmentally prior* to them. Finally, the inherent connection between the attachment system and responses to stress constitutes another compelling reason for viewing attachment as a key organizing construct.

In his formulation of attachment theory, Bowlby (1969, 1973, 1980) proposed that for infants, at least, there is an inherent connection between attachment behavior and stress/distress. Attachment behavior regulates the distress associated with perceived threat by controlling proximity to the attachment figure (a source of comfort). Bowlby argued that three classes of stimuli could be perceived as threatening, hence triggering attachment behavior: internal states of the infant, such as pain; aversive caregiver behaviors, such as perceived re-

jection; and environmental conditions, such as frightening events.

This link between attachment behavior and stress/distress has led researchers to describe attachment theory as a theory of "affect regulation." A key tenet of the theory is that caregivers' responsiveness and sensitivity to the child's affective signals provide a critical context within which the child organizes emotional experience (Sroufe & Waters, 1977). If the caregiver is available and responsive, a secure attachment bond is likely to develop, and distress can be regulated with strategies that involve active seeking of comfort from the caregiver. If the caregiver is unresponsive or unpredictable, alternative strategies develop: Avoidant individuals restrict support-seeking and acknowledgement of distress, whereas anxious-ambivalent individuals show heightened attention to negativity and heightened expression of distress (Kobak & Sceery, 1988).

Adult Attachment and Stressful Events

Based on Bowlby's (1969) discussion of the stimuli that elicit attachment behavior in infants, researchers have recently examined links between adult attachment security and responses to internal, relationship-based, and environmental stressors. Attachment security has been variously defined using categorical (e.g., secure, avoidant, anxious-ambivalent) or continuous measures (comfort with closeness and anxiety over relationships). Irrespective of the measures used, these studies support the link between insecurity and less constructive responses to stress, particularly when stressors are seen as posing a substantial threat to individuals or their relationships (Feeney, Noller, & Roberts, 2000).

Of special interest to the current research are studies addressing the relation between attachment security and *coping strategies*. These studies have focused on stressors as diverse as missile attacks during the Gulf War (Mikulincer, Florian, & Weller, 1993), separation from romantic part-

ners (Feeney, 1998), hypothetical social and achievement-related dilemmas (Ognibene & Collins, 1998), and parenting (Mikulincer & Florian, 1998). Findings from these studies clearly link attachment security and coping strategies. Specifically, secure attachment is related to problem-solving behavior and turning to others for advice and support. In contrast, avoidant attachment (cf. discomfort with closeness) is related to distancing behaviors, and ambivalent attachment (cf. anxiety over relationships) is related to affect-laden strategies such as self-blame and wishful thinking. There is also evidence, for new mothers at least, that secure attachment is related to appraisals of lower parenting stress (Mikulincer & Florian, 1998). Finally, Ognibene and Collins' (1998) work suggests that the effects of attachment on coping (e.g., the link between security and support-seeking) may be mediated, in part, by coping resources such as perceived social support.

Stress, Resources, Appraisal, and Coping

To appreciate the importance of links among attachment security, appraisals of stress, and coping strategies, it is necessary to review briefly contemporary understanding of stress and coping. The most widely accepted model of stress and coping is the process model of Lazarus and colleagues. According to this model, *stress* is a relationship between the individual and environment that is seen by the individual as relevant to well-being and as taxing their resources; *coping* refers to cognitive or behavioral efforts to manage stress (Folkman & Lazarus, 1985; Lazarus, 1993a). The coping process begins with cognitive appraisal: primary appraisal, where the individual judges whether an event is irrelevant, benign, or stressful; and secondary appraisal, where he or she evaluates coping resources and options. As such, coping resources "precede and influence coping" (Lazarus & Folkman, 1984, p. 158).

Coping resources can be divided into two groups: *Personal* resources are rela-

tively stable personality and cognitive characteristics that shape coping processes, whereas *environmental* resources are relevant aspects of the physical and social environment (Terry, 1991b). In terms of personal resources, coping is influenced by a range of dispositional factors (e.g., self-efficacy, optimism, sense of coherence) that are related to self-esteem (Holahan, Moos, & Schaefer, 1996). A major environmental resource is perceived support from the social network, which has been linked to positive appraisal and constructive coping (Holahan, Moos, & Bonin, 1997). Recently, Mikulincer and Florian (1998) suggested that secure attachment is a core protective factor from which coping resources, such as self-esteem and social support, are derived.

The final element of the process model involves coping strategies, which fall into two main classes: Problem-focused strategies are directed toward managing the stressful situation, whereas emotion-focused strategies are directed toward managing the negative affect associated with the situation. Social support-seeking is an additional strategy that can involve aspects of both problem- and emotion-focused coping (Vitaliano, Russo, Carr, Maiuro, & Becker, 1985). Problem-focused coping is generally associated with more positive outcomes than emotion-focused coping, unless the stressor is beyond the individual's control (Lazarus, 1993b).

Thus, coping can be seen as a cycle of events, involving an appraisal process that takes account of levels of stress and resources, followed by the selection and implementation of coping strategies. Given the importance of appraisal of threat and selection of coping strategies, any variable such as attachment security that can predict these two aspects is likely to add to our understanding of coping. It is worth noting that the term "selection" may be interpreted widely in this context. Whereas Lazarus and colleagues tend to focus on conscious choice of coping strategies, cognitive structures such as working models of attachment operate at both conscious and unconscious levels to in-

fluence behavioral and emotional responses (Collins & Read, 1994).

Attachment, New Parenthood, and Coping: An Integrative Model

It has been established that the transition to parenthood is a stressful event, requiring ongoing adjustments at both individual and dyadic levels. It has also been shown that attachment security predicts threat appraisal and coping strategies in many stressful situations, including new parenthood. Finally, the roles of appraisal, coping resources, and coping strategies in the process model of coping have been delineated. A model is now proposed that integrates attachment security, stress, and coping in the context of new parenthood (see Fig. 1).

Figure 1 has been simplified for ease of presentation in that effects of the *partner's* characteristics are not shown. However, given that marital partners are interdependent, partner effects are tested in the model; in particular, previous research suggests that females' relationship anxiety has negative effects on partners' attitudes and behaviors (Feeney & Noller, 1996). The model also incorporates some differential predictions according to gender, as detailed later.

As Figure 1 suggests, attachment security is regarded as the starting point in a chain of predictive relations. Consistent with the suggestions of Mikulincer and Florian (1998), and with the inherent relation between at-

tachment behavior and stress, secure attachment is seen as the core protective factor that leads to positive appraisal and constructive coping strategies. Conversely, insecure attachment is seen as the core risk factor that leads to negative appraisal and less constructive coping strategies.

However, coping strategies are affected not only by attachment security, but also by appraised threat and "traditional" resource variables, such as self-esteem and perceived social support (Lazarus, 1993a). Further, self-esteem and perceived social support can be viewed as "second-order" constructs, in the sense that both are derived from working models of attachment, which are developmentally prior (Bartholomew, Cobb, & Poole, 1997; Thompson, 1999). Hence, attachment security is likely to affect coping strategies *indirectly*, through coping resources and appraisal of strain. That is, secure individuals' constructive coping may be explained, at least in part, by their tendency to see stress as manageable and their own resources as adequate for the task. Attachment security may also affect coping strategies *directly*. For example, in stressful situations, the working models associated with insecurity may drive over-learned and maladaptive responses such as denial and withdrawal. Some support for this proposition is provided by data showing both direct and indirect effects of attachment on responses to hypothetical stressful events (Ognibene & Collins, 1998).

As noted earlier, the proposed model of coping with new parenthood incorporates some differential predictions according to gender. Specifically, based on gender differences in social and parental roles, we suggest that the indirect effects of attachment security are mediated by self-esteem for men, but by social support for women. Men in Western societies tend to focus on competitive self-evaluation (Van de Vliert, 1998); hence, self-esteem is likely to be particularly central to their coping responses. Conversely, women tend to focus on the values of supportive friendship and family bonds (Auhagen, 1996); hence, perceptions

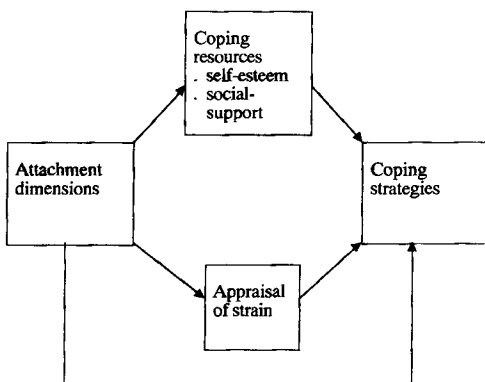


Figure 1. Theoretical model for the prediction of coping strategies.

of support should be central to their coping responses. For women undergoing the transition to parenthood, the salience of social support may also be heightened by their greater responsibility for the various tasks of infant care (Belsky & Pensky, 1988).

Testing the Model: The Present Study

The research presented here is part of an ongoing longitudinal study that follows ongoing couples from the second trimester of pregnancy until approximately 6 months after the birth of their first baby, and it was designed to test the theoretical model outlined above. In accordance with the proposed sequence of relations, attachment and coping resources were assessed during the second trimester of pregnancy (Time 1), and strain and coping strategies were assessed shortly after the birth (Time 2).¹ The present study has clear advantages over most previous studies of attachment, stress, and coping. As noted earlier, it focused on a real-life transition point at which attachment issues are likely to be particularly salient. In addition, the study employed a prospective design, enabling stronger tests of the proposed theoretical model.

Hypotheses

Based on the literature reviewed above, the following broad hypotheses were formulated.

H1: We expected own and partners' attachment dimensions to influence coping strategies, with insecure attachment predicting less constructive coping. In particular, it was expected that own discomfort with closeness would inhibit support-seeking, and that own anxiety over relationships would be associated with more emotion-focused coping and

less problem-focused coping. It was also expected that wives' anxiety over relationships would be associated with less constructive coping on the part of husbands.

H2: We expected the effects of own attachment described in Hypothesis 1 to be partially mediated via appraisals of strain. Specifically, insecure attachment (especially anxiety over relationships) would be related to higher appraised strain, which would in turn be related to more emotion-focused coping.

H3: We also expected the effects of own attachment to be partially mediated by coping resources, with the specific mediating variable being self-esteem in the case of husbands and social support in the case of wives.

For problem- and emotion-focused coping, the complete model was tested (see Fig. 1). However, based on previous studies and in the interests of parsimony, the model was modified slightly for social support-seeking: Perceived social support was considered the most salient coping resource, and self-esteem was therefore omitted from the model.

Although not shown in Figure 1, possible interactive effects were also tested. In particular, we assessed interactive effects of appraisal and coping resources on coping strategies. Such effects are consistent with the "buffering hypothesis," which holds that coping resources facilitate effective coping at high, but not at low, levels of stress (Terry, 1989). Hence, we expected the combination of high strain and high coping resources to result in more problem-focused coping and support-seeking. (This combination was *not* expected to lead to emotion-focused coping, as this strategy is likely to have limited utility in the context of new parenthood.) For completeness, we also tested for interactive effects between attachment security and appraisal of stress. However, because attachment is a core protective factor, we expected its effects on coping strategies to be pervasive, rather than restricted to particular levels of strain.

1. The present study focuses on attachment (Time 1) as a predictor of later stress and coping. As part of the larger longitudinal study, attachment was also measured at Time 2, and the results of a MANOVA indicated no change in the attachment dimensions across this time period.

Method

Participants

The participants were 92 married couples who were recruited in the second trimester of their first pregnancy. Originally, 107 couples were recruited, but several couples dropped out of the study before the Time 2 data collection (see *Procedure* section). A series of MANOVAs indicated that the couples who dropped out did not differ from those couples who remained in the study on any of the initial measures. All further analyses were based on those couples who completed both phases of the study. The mean ages at commencement of the study were 30.94 years ($SD = 5.80$) and 28.70 years ($SD = 5.00$) for husbands and wives, respectively. The mean length of marriage at commencement of the study was 3.57 years ($SD = 3.00$).

Measures

Attachment style. The Attachment Style Questionnaire (ASQ; Feeney, Noller & Hanrahan, 1994) was used to assess attachment dimensions. The ASQ consists of 40 items with a 6-point response scale. Two major attachment dimensions, anxiety over relationships and discomfort with closeness, were derived (Strahan, 1995). The former contained 13 items (possible range 13–78), and the latter 17 items (possible range 17–102). In the present study, the alpha coefficient for each scale (combining data from husbands and wives) was .86.

Self-esteem. The adult form of the Coopersmith Self-Esteem Inventory (SEI) (Coopersmith, 1981) was used to assess self-esteem. This questionnaire consists of 25 items, with a response scale “like/unlike me.” Each item is scored 0 or 4, according to the indicated response. The inventory provides a single index of global self-esteem, with possible scores ranging from 0 to 100 ($\alpha = .81$).

Perceived social support. Brown’s (1986) Support Behaviors Inventory (SBI) was used to assess perceived social support. This measure, created specifically to assess social support for pregnant couples, has demonstrated reliability and validity. The SBI consists of 33 items referring to support from partner, family, and friends. The response format is a 6-point Likert scale. The SBI was scored to provide a single index of overall support ($\alpha = .93$). Possible scores ranged from 33 to 198.

Appraised parenting strain. Parenting strain (appraisal of the stress arising from the arrival and care of the baby) was measured using an instrument developed by Terry (1991a). The scale has 23 items, three of which deal with overall appraisals of the event; for example, “To what extent has the arrival of your baby been disruptive?” Respondents are then presented with a list of 20 difficulties commonly associated with new parenthood (e.g., loss of sleep, interruptions to activities), and asked to indicate which ones they have experienced and, if applicable, how difficult they have found them in the past fortnight. The response format is a 4-point Likert scale. The instrument provides a single index of parenting strain, with a possible range of 0 to 69. In the present sample, the alpha coefficient was .90.

Coping strategies. The Ways of Coping Checklist (Revised; WCC-R; Vitaliano et al., 1985) was used to measure coping strategies, and it is the most widely employed instrument in the coping literature. Items of marginal relevance in the transition to parenthood (e.g., “Tried to get the person responsible to change his or her mind”) were deleted, as were items with lower factor loadings, leaving 37 items. Following Vitaliano et al. (1985), the checklist was scored to measure the three main coping strategies: problem-focused coping, social support-seeking, and emotion-focused coping (with 12, 6, and 19 items in each scale, respectively). Couples completed the items with regard to their ways of coping with being a

new parent. With items using a 4-point response format, the possible ranges of scores for the subscales were 0 to 36, 0 to 18, and 0 to 57, respectively. All alpha coefficients exceeded .88.

Procedure

Participants were recruited by a variety of means, including media advertisements, face-to-face canvassing at the antenatal clinic at a major Brisbane hospital, and at two parenting "expos." Flyers were also distributed at shopping centers and obstetricians' waiting rooms. The largest single source of participants was the antenatal clinic (35 couples).

Volunteer couples who met the criteria of being married and in the second trimester of their first pregnancy were scheduled for a brief interview, which was conducted by a trained interviewer at each couple's home. At the interview, the purpose of the study was explained, consent forms were signed, and background information was obtained. At the end of the interview, each couple was given a package of self-report questionnaires for each spouse. Participants were asked to complete the packages individually and without collaboration, and to return them in pre-paid envelopes as soon as possible. Between 5 to 6 months later (4 to 6 weeks after the birth), couples were sent a second set of questionnaire packages, and they were asked to complete

and return these at a second brief interview scheduled for the following week.

Results

Overview of analyses

Three sets of analyses were conducted. First, ANOVA procedures were used to examine gender effects on the measures of attachment, stress, and coping. The mean scores and standard deviations for these scales, broken down by gender, appear in Table 1. Second, structural equation modeling (EQS) was used to test the proposed model of attachment, stress, and coping (Hypotheses 1 to 3). The correlation matrix for all variables entered into the structural equations is shown in Table 2. Third, multiple regression analyses were used to test for interactive effects of attachment security and strain, and coping resources and strain, on coping strategies.

Gender differences

The MANOVAs were used to assess gender differences in attachment, coping resources, and coping strategies, with separate analyses being run for each of these three sets of variables. In each analysis, gender was varied within-couple. Similarly, an ANOVA was conducted to examine gender differences in ratings of parenting strain.

Effects of gender were found for discom-

Table 1. Mean scores and standard deviations for all scales by gender

Variable	Husbands	Wives
Anxiety over relationships	37.48 (10.38)	37.56 (10.28)
Discomfort with closeness	50.23 (10.67)	45.29 (10.24)
Self-esteem	78.59 (17.55)	79.74 (16.43)
Social support	146.58 (23.29)	157.59 (18.22)
Appraisal of strain	30.11 (10.78)	34.90 (11.55)
Emotion-focused coping	8.91 (9.28)	11.34 (9.87)
Support-seeking	5.31 (3.34)	9.40 (4.09)
Problem-focused coping	12.37 (5.75)	15.17 (6.44)

Note: Standard deviations are in parentheses.

Table 2. Correlation matrix of all variables

	Anxiety	Discmf	Esteem	Support	Strain	Prob foc	SeekSS	Emofoc
Anxiety	—	.32**	-.67***	-.41***	.19 [†]	-.07	.13	.40***
Discmf		—	-.68***	-.41***	.14	-.04	.00	.41***
Esteem			—	-.37***	-.04	-.05	.08	.20 [†]
Support				—	.00	-.08	-.24*	.14
Strain					—	.01	-.15	-.47***
Prob foc						—	.00	-.34**
SeekSS							-.06	-.15
Emofoc								-.10
								.12
								.50***
								.46***
								.48***
								.21*
								.66***
								.36***
								.69***
								.32**
								.46***
								.31**

Note: Coefficients in upper row of cell are for husbands; those in lower row are for wives: $N = 92$.

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

fort with closeness, perceived social support, problem-focused coping, social-support seeking, and parenting strain. Husbands reported more discomfort than did wives ($F(1,171) = 20.39, p < .001$), but wives reported more social support ($F(1,173) = 27.68, p < .001$) problem-focused coping ($F(1,171) = 7.54, p < .01$), social support-seeking ($F(1,171) = 62.33, p < .001$), and parenting strain ($F(1,91) = 16.56, p < .001$).

Testing the theoretical model: Structural equation models

Structural equation modeling, using EQS (Bentler, 1992), was used to test Hypotheses 1 to 3. Separate models were run for each of the three coping strategies (problem-focused, social-support seeking, and emotion-focused), and in each model husbands' and wives' data were included. As data from spouses are not independent, their scores on corresponding variables were allowed to co-vary in the EQS models.

The initial proposed models for all three coping strategies provided a good fit to the data, as indicated by three criteria: Akaike's information criterion (AIC); the ratio of the model chi-square statistic to the degrees of freedom (for both these criteria, low val-

ues are optimal); and the comparative fit index (CFI, which should exceed .9; Byrne, 1994). The values of these statistics were as follows: for emotion-focused coping, $AIC = -22.64, \chi^2(24) = 25.36, p = .39, CFI = .996$; for problem-focused coping, $AIC = -22.64, \chi^2(24) = 25.36, p = .39, CFI = .995$; for social-support seeking, $AIC = -27.96, \chi^2(28) = 28.04, p = .46, CFI = 1.000$.

Although the initial models provided a good fit to the data, the Wald tests (Byrne, 1994) indicated that each model contained a number of paths that did not contribute significantly to the fit. Accordingly, for parsimony, these paths were eliminated. Goodness-of-fit statistics for the final models were highly acceptable: For emotion-focused coping, $AIC = -33.53, \chi^2(44) = 54.47, p = .13, CFI = .971$; for problem-focused coping, $AIC = -30.39, \chi^2(37) = 43.61, p = .21, CFI = .976$; for social support-seeking, $AIC = -23.35, \chi^2(37) = 50.65, p = .07, CFI = .947$. The adequacy of fit of the final models was further indicated by the small values of the standardized root mean residuals (.089, .088, .092, for emotion-focused, problem-focused, and support-seeking, respectively).

The final models differed considerably in their complexity. The most complex model,

and that closest to the proposed theoretical model, was for emotion-focused coping. This model is illustrated in Figure 2.

As Figure 2 indicates, the pattern of effects differed somewhat for husbands and wives. Wives' emotion-focused coping was predicted most strongly by direct positive effects of their own anxiety over relationships and parenting strain; there were also weak negative effects of own relationship anxiety and discomfort with closeness, via their links with perceived social support. In contrast, husbands' emotion-focused coping was predicted most strongly by indirect positive effects of their own anxiety over relationships, via own self-esteem and parenting strain. A weaker positive effect of own discomfort with closeness was also obtained, via own self-esteem. Finally, *partner* attachment effects were also relevant to husbands' emotion-focused coping: Wives' anxiety and discomfort had weak negative effects, via wives' perceived social support.

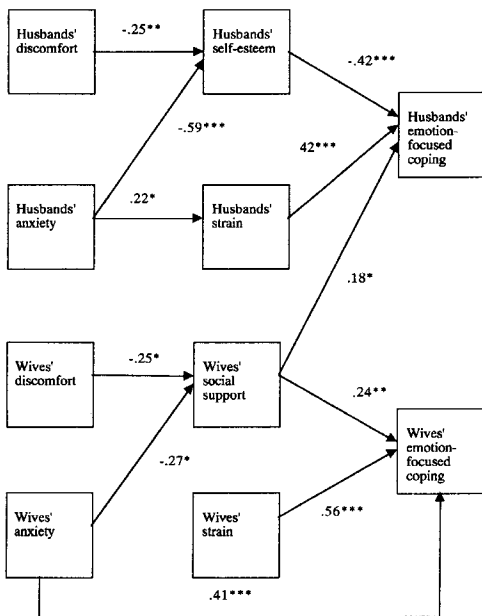


Figure 2. Final model for emotion-focused coping.

Note: The numbers in these diagrams are standardized regression weights. * $p < .05$, ** $p < .01$, *** $p < .001$.

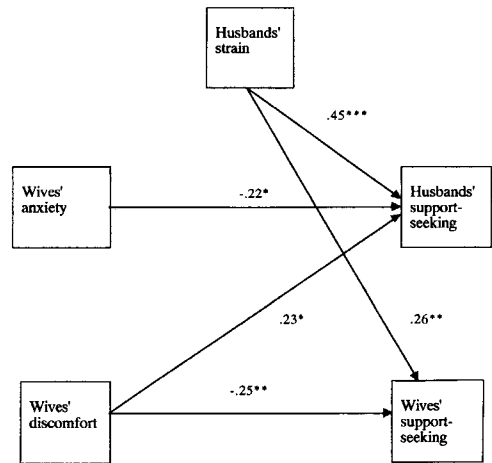


Figure 3. Final model for social support-seeking.

Note: The numbers in these diagrams are standardized regression weights. * $p < .05$, ** $p < .01$, *** $p < .001$.

The final model for support-seeking is shown in Figure 3. For both husbands and wives, support-seeking was predicted directly by wives' attachment security and husbands' parenting strain. Specifically, wives' support-seeking was related negatively to own discomfort with closeness and positively to *husbands'* strain. Husbands' support-seeking was related positively to own strain and to *wives'* discomfort, and negatively to *wives'* anxiety; the strongest effect was for own strain. (The link between husbands' anxiety and strain was reliable in the prediction of emotion-focused coping, but not support-seeking; relations that are significant in one model can fail to reach significance in another, as the overall covariance matrix determines the model.)

Problem-focused coping was reliably predicted for husbands only. Husbands' problem-focused coping had a direct negative association with own anxiety over relationships ($\beta = -.23, p < .05$), and an indirect positive association with own anxiety via increased levels of own parenting strain ($\beta = .14, p < .05$). Finally, husbands' problem-focused coping showed a direct negative link with *wives'* parenting strain ($\beta = -.29, p < .01$).

Supplementary research questions:

Testing interactions

Currently, it is not possible to test for interactions using EQS. Therefore, multiple regression methods were used to test the predicted interactive effects of coping resources and strain on coping strategies, and to test possible interactive effects of attachment security and strain. Separate analyses were performed for each combination of coping strategy and gender; this was because the EQS analyses revealed different sets of relations. Four product terms were formed: self-esteem \times strain; support \times strain; anxiety over relationships \times strain, and discomfort with closeness \times strain. These product terms were based on standardized scores to reduce multicollinearity and prevent any one variable from contributing an undue amount of variance. In each analysis, the relevant main effects were entered at Step 1, and the product terms at Step 2.

Although there were no interactive effects of attachment security and strain, interactions between coping resources and strain were evident for two of the six equations. Specifically, husbands' support-seeking was predicted by the interaction between self-esteem and strain ($R^2 = .21$, $F(6,84) = 5.47$, $p < .0001$; $\beta = .34$, $p < .01$), whereas wives' emotion-focused coping was predicted by the interaction between perceived support and strain ($R^2 = .48$, $F(6,84) = 13.12$, $p < .0001$; $\beta = .21$, $p < .05$).

To explore these interactions further, additional analyses were conducted. First, husbands were divided into two groups, according to high or low scores on self-esteem (defined as at least 1 *SD* above and below the mean, respectively). Bivariate correlations between husbands' strain and husbands' support-seeking were calculated, separately for each group. The correlation was positive for husbands high in self-esteem ($r = .48$, $p < .05$), but nonsignificant for those low in self-esteem. In other words, as expected, the combination of high strain and high self-esteem was associated with more support-seeking. Similarly, two groups

of wives were formed, according to high or low scores on social support, and bivariate correlations between wives' strain and emotion-focused coping were calculated for each group. The correlation was positive for wives high in social support ($r = .82$, $p < .001$), but nonsignificant for those low in support. Although this specific pattern was not predicted, it is also consistent with the notion that the combination of high strain and high resource levels results in increased coping efforts.

Discussion

The current findings are generally congruent with those of earlier cross-sectional studies of attachment, stress, and coping. Further, they offer substantial support for the integrative model of attachment, stress, and coping, as detailed in the following sections.

Gender differences in mean scores

Gender differences were found for attachment, coping resources, coping strategies, and parenting strain. In terms of attachment dimensions, husbands scored higher than wives on discomfort with closeness. This finding is consistent with earlier studies (Feeney, 1994; Feeney, Noller, & Callan, 1994), and with sex-role stereotypes in Western cultures, which suggest that women value and seek emotional intimacy more than do men (Sexton & Sexton, 1982).

In terms of coping resources, wives reported more social support than husbands did. Similarly, other researchers have suggested that females' interpersonal relationships are expressive and support-oriented, whereas males' are centered on recreational and instrumental activities (Auhagen, 1996). In addition, social networks may actually become more supportive when wives become pregnant, as network members respond to the pregnant woman's practical and emotional needs; similarly, expectant wives may be more *aware* of the support they receive because of its salience at this time of change.

With regard to coping strategies, wives reported more problem-focused coping and more support-seeking than did husbands. Although gender differences have not been a major focus of previous studies of coping, these findings can be understood in terms of family and social roles. At the second assessment, most of the new mothers reported that they were providing full-time care for their infants; further, of those husbands who had taken some time off after the birth, almost all had returned to full-time employment. Hence, mothers may have reported more problem-focused coping and support-seeking because they were responsible for most of the tasks of infant care and home-making. In addition, as noted earlier, women tend to focus on intimacy and emotional support in their relationships with friends and family. For this reason, it is not surprising that new mothers reported turning to others for support and advice; in fact, support-seeking was their most strongly endorsed coping strategy.

Finally, husbands reported less parenting strain than did wives. Again, this finding can be understood in terms of the overall impact of new parenthood being somewhat greater for women. Wives typically take the major responsibility for infant care and, as new parents, have to make more lifestyle changes than husbands do (Belsky & Pensky, 1988; Levy-Shiff, 1994).

Direct effects of attachment on coping

All three coping strategies showed direct effects of spouses' own attachment security, although these effects were gender-specific. Consistent with Hypothesis 1, discomfort with closeness was related negatively to wives' support-seeking, and relationship anxiety was related negatively to husbands' problem-focused coping and positively to wives' emotion-focused coping. Of these direct effects, the effect of wives' relationship anxiety on their emotion-focused coping was particularly strong.

These effects are consistent with attachment theory and with previous research. By definition, discomfort with closeness should

inhibit support-seeking, because turning to others for support generally calls for an acceptance of closeness and dependence (Bartholomew et al., 1997). Relationship anxiety, in contrast, is associated with the tendencies to experience negative affect and to monitor situations for negative cues (Kobak & Sceery, 1988). These tendencies are likely to make anxious individuals highly aware of emotional distress, particularly when facing challenging situations; hence, they may become preoccupied with managing that distress, rather than engaging in problem-solving activities.

Partner's attachment security also influenced coping, although for support-seeking only. Husbands' support-seeking was related negatively to wives' relationship anxiety (consistent with Hypothesis 1), and positively to wives' discomfort. Women who are very anxious about their relationships may become rather distressed or demanding when facing the pressures of new parenthood; such responses probably inhibit husbands' access to wider social networks by directing their energy and attention toward meeting their partner's needs. In fact, because women in this sample were the primary caregivers, husbands may have seen their own role as providing necessary support, and may have been quite attuned to their wives' needs (Belsky & Kelly, 1994). In contrast, wives who are uncomfortable with closeness may be less willing or able to satisfy their husbands' needs for emotional intimacy, prompting these husbands to turn to their wider network to satisfy these needs.

These effects of partners' attachment can be understood in terms of interdependence: That is, in relationships such as marriage, one partner's attitudes and behaviors can have a strong effect on the other (Berscheid, Snyder, & Omoto, 1989). Similarly, systems theorists note that issues and problems affecting one family member affect the system as a whole (Byng-Hall, 1999).

Attachment, strain, and coping

There was some support for Hypothesis 2, which proposed that parenting strain would

partially mediate the effects of attachment on coping. Specifically, this prediction was supported for the effects of *husbands' relationship anxiety* on their problem-focused and emotion-focused coping. In other words, highly anxious husbands rated parenting as more stressful than did other husbands, and this effect served to increase levels of both problem- and emotion-focused coping. Although we predicted that strain would act as a mediator for emotion-focused coping only, the present results suggest that greater strain is associated with increased use of a variety of coping strategies, at least in response to new parenthood. In short, greater strain elicits greater coping effort (Lazarus, 1993a).

Again, differences in parenting roles may explain why the link between strain and relationship anxiety was restricted to husbands. Because wives were responsible for most of the infant care, their feelings of strain may have been tied to the specific demands of the situation, rather than to their attachment orientation or other personal characteristics. Conversely, for husbands, direct involvement in infant care was limited. Those who were highly anxious about their relationships may have found the early months of parenthood stressful because they felt somewhat neglected; it was as though the baby had usurped the husband's special place in his wife's affection.

Although we conceptualized strain as a *mediating* variable, it also had additional effects on coping. Own strain was strongly related to more emotion-focused coping by wives and support-seeking by husbands. Further, when partners rated strain as high, wives reported more support-seeking and husbands reported less problem-focused coping. Generally, then, high levels of strain were related to greater coping efforts (as for the mediated effects). This finding is not surprising. For example, men who find parenthood stressful may be particularly appreciative of others' support; if men's strain manifests itself in distress or irritability, their partners may also turn to others for

advice or emotional venting. Contrary to this general pattern, the *negative* effect of wives' strain on husbands' problem-focused coping suggests that new mothers who are highly stressed behave in ways that disrupt partners' attempts to make or implement action plans.

Attachment, resources, and coping

In support of Hypothesis 3, the effect of attachment security on emotion-focused coping was partially mediated by coping resources. Further, as expected, the mediating variable was self-esteem in the case of husbands, but perceived social support in the case of wives.

For husbands, both relationship anxiety and discomfort with closeness had indirect effects on emotion-focused coping via own self-esteem. The link between insecurity and low self-esteem was particularly strong for relationship anxiety, consistent with the claim that this dimension of attachment reflects working models of the self (Brennan, Clark, & Shaver, 1998). The finding that low self-esteem predicted emotion-focused coping fits with the proposition that those who feel capable and effective are less likely to dwell on negative affect (Holahan et al., 1996).

For wives, both attachment dimensions again had indirect effects on emotion-focused coping, this time via perceived social support. That is, wives' insecurity was associated with perceptions of less available support, and hence with less emotion-focused coping by *both* self and partner. Although the link between insecurity and perceived lack of support fits with attachment theory, it is not clear why wives' perceived social support (a coping resource) was associated with *more* emotion-focused coping (usually seen as a low-benefit strategy). Perhaps some spouses perceived the support available to wives as potentially inappropriate or intrusive (Rook, 1990), and as threatening their sense of parenting competence. Such a perceived threat is likely to lead to

heightened emotional arousal, and hence to emotion-focused coping.

It is interesting to note that coping resources mediated the effects of attachment security for emotion-focused coping only. In fact, the effects of attachment security generally were strongest for emotion-focused coping. This finding may reflect the fact that problem-focused coping and, to a lesser extent, support-seeking, both involve attempts to tackle the stressful situation; as such, these strategies may be largely driven by the demands of the situation. In contrast, emotion-focused coping represents an attempt to deal with one's inner feelings, and may be driven largely by the individual's felt needs and perceived resources. Although Ognibene and Collins (1998) found that social support mediated the effect of attachment on support-seeking, their study involved hypothetical stressful situations: Because the stressors were not directly experienced, responses were likely to have been driven by personal needs and perceptions.

Overview of attachment effects

Overall, the effects of attachment on coping strategies were quite complex, and they included both direct and indirect effects. The indirect effects took various forms, involving associations with internal and external coping resources and with appraisal of strain. The strongest direct effect of attachment was the link between wives' relationship anxiety and their emotion-focused coping. This effect suggests that the working models associated with relationship anxiety may drive over-learned responses to emotional distress, such as denial, self-criticism, or wishful thinking. Given that these maladaptive responses may interfere with the practical tasks of parenthood and with the process of bonding to the baby, they are clearly a cause for concern.

The complex effects of attachment security are further highlighted by a comparison of direct and indirect effects. For example, the direct effect of husbands' relationship

anxiety *reduced* problem-focused coping, but the (weaker) indirect effect *increased* problem-focused coping by increasing strain. Similarly, whereas the direct effect of wives' relationship anxiety *increased* emotion-focused coping, the (weaker) indirect effect *reduced* emotion-focused coping by reducing social support. The contrasting nature of these direct and indirect effects reminds us that attachment security, as a core characteristic of the individual, has its impact in interaction with a wide range of intrapersonal and interpersonal factors (Marvin & Britner, 1999).

Interactive effects of strain

Attachment security and appraisals of strain did not interact to predict coping strategies. In contrast, some support was found for interactive effects of coping resources and strain: For husbands, self-esteem and strain interacted to predict support-seeking, whereas for wives, social support and strain interacted to predict emotion-focused coping. In both cases, strain was positively related to coping strategies only for spouses who reported high levels of the particular coping resource. It appears that, in these cases, persons with substantial coping resources are able to increase their coping efforts in response to levels of strain. It is also possible that wives who appraise parenthood as very stressful *in spite of* having high levels of support are facing particularly trying situations, leading them to resort to more emotion-focused coping. Overall, our findings are consistent with those of Terry (1989), who found interactive effects of coping resources and strain limited to specific resources and specific time intervals.

For the prediction of wives' emotion-focused coping, then, perceived social support moderated the effect of strain and mediated the effect of attachment security. Similarly, for husbands, self-esteem acted as both moderator and mediator (interacting with strain to predict support-seeking, and mediating the relation between attachment and emotion-focused coping). These find-

ings further highlight the relevance to new parenthood of husbands' self-esteem and wives' perceived social support.

General Discussion and Conclusions

The present study had potential limitations. It was based on self-report measures, and although these measures have demonstrated reliability and validity, we acknowledge that other methodologies can be useful in supplementing self-reports. In addition, the study was not fully longitudinal, as most measures were used at one point in time only. Despite these limitations, the study had important strengths. It was prospective in design, and it followed a relatively large group of couples through the same major real-life transition. The transition to parenthood provides a unique opportunity to study attachment and coping at a time when new stressors are being introduced into couples' lives and attachment issues are particularly salient. During this transition, spouses must bond with the baby and attend to its many needs, while continuing to nurture their existing attachment relationship.

The findings support our proposition that attachment security is a "core resource" with broadly based effects on the coping process. The links between attachment security and coping resources were consistent with theory and with previous studies, as were the direct links between attachment and coping strategies. The proposed link between attachment security and parenting strain was also supported, at

least for husbands. Finally, in accordance with the coping literature, coping resources were related to coping strategies.

Although the results were generally congruent with theories of attachment and coping, they highlight the complexity of the relations among the focal constructs. Attachment security had both direct and indirect effects on coping, and some interactions were evident between coping resources and strain in predicting coping. Moreover, gender differences existed in mean scores and predictive relations, together with evidence of interdependence between marital partners: Wives' attachment security was linked to husbands' coping patterns.

Our findings suggest that both attachment and coping theories provide useful insights into how couples adapt to becoming new parents. The findings also have important implications for the development of interventions designed to smooth the transition to parenthood. The direct and indirect effects of attachment point to several ways in which insecure individuals might be assisted at this time, including strengthening support networks, assessing specific sources of parenting strain, developing coping strategies tailored to both partners' needs, and addressing directly the attachment-related memories and expectations that influence behavior. Future research integrating the attachment and coping perspective should contribute further to our understanding of the processes involved in this important adaptation.

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