Job Stress and Dyadic Synchrony in Police Marriages: A Preliminary Investigation

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Despite reports documenting adverse effects of stress on police marriages, few empirical studies focus on actual emotional behaviors of officers and spouses. In this preliminary investigation, 17 male police officers and their nonpolice wives completed daily stress diaries for 1 week and then participated in a laboratory-based discussion about their respective days. Conversations were video-recorded and coded for specific emotional behaviors reflecting hostility *and* affection, *which are strong predictors of marital outcomes. We examined associations between officers' job stress (per diaries and the Police Stress Survey) and couples' emotional behavior (mean levels and behavioral synchrony) using a dyadic repeated measures design capitalizing on the large number of observations available for each couple (1020 observations). When officers reported more job stress, they showed less hostility, less synchrony with their wives' hostility, and more synchrony with their wives' affection; their wives showed greater synchrony with officers' hostility and less synchrony with officers' affection. Therefore, for officers, greater job stress was associated with less behavioral negativity, potentially less attunement to wives' negativity, but potentially* greater *attunement to wives' affection—perhaps a compensatory strategy or attempt to buffer their marriage from stress. These attempts may be less effective, however, if, as our synchrony findings may suggest, wives are focusing on officers' hostility rather than affection. Although it will be important to replicate these results given the small sample, our findings reveal that patterns of behavioral synchrony may be a key means to better understand how job stress exacts a toll on police marriages.*

Keywords: Job Stress; Emotional Behavior; Marriage; Marital Interaction; Police; Dyadic Synchrony

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Emotional engagement and a balance of positive to negative emotion are essential for a marriage to thrive. High levels of hostile expressions (e.g., criticism) and low levels of affection expressions (e.g., shared humor) are particularly strong predictors of marital distress and divorce (Gottman, 1994; Gottman & Levenson, 1992; Lindahl, Clements & Markman, 1998). Highly "emotionally neutral" interactions also can be problematic, signaling "a devitalized, essentially affectless marriage" on a similar, although slower path toward divorce (Gottman & Levenson, 2002, p. 92). Coordination or *synchrony* between partners' behaviors provides an important index of emotional engagement or attunement and reveals how partners' momentary behaviors may translate into a larger emotional dynamic and relationship functioning (Bernieri, Rosenthal, Feldman & Rime, 1991; Butner, Diamond & Hicks, 2007; Rohrbaugh, Shoham, Butler, Hasler & Berman, 2009).

A potential threat to maintaining a positive, emotionally rewarding marital climate is job stress. Engaging in meaningful, coordinated emotional interactions requires effort, and stress depletes cognitive, emotional, and regulatory resources needed for such effort (Baumeister, Bratslavsky, Muraven & Tice, 1998). Spouses report lower mood, and in turn less desire for physical and emotional closeness, on days of greater work stress (Lavee & Ben-Ari, 2007). Per self- and partner-reports, husbands in particular tend to disengage emotionally—including expressing less anger—after high workload (Repetti, 1989) or negatively arousing workdays (Schulz, Cowan, Cowan, & Brennan, 2004). Given that reports of behaviors do not consistently coincide with actual behaviors, particularly with respect to marital functioning (Fincham & Rogge, 2010), we were interested in studying associations between job stress and couples' actual emotional behaviors. We investigated this in male police officers and their nonpolice wives.

For several decades, police work has been described as precipitating marital distress (Niederhoffer & Niederhoffer, 1978; Stratton, 1975; Violanti, 2007). Law enforcement is physically and emotionally exhausting (Maslach & Jackson, 1981; Senjo & Dhungana, 2009). It requires "emotion management"—suppressing personal feelings and expressing emotions not actually felt—even among fellow officers (Pogrebin & Poole, 1988, 1991; Schaible & Gecas, 2010; Tracy, 2005). Similarly, officers may hide their true feelings at home. In a large survey of police wives, "keep things to self" was cited as officers' most frequently-used strategy for combating work-induced stress (Alexander & Walker, 1996). Despite officers' best efforts to prevent police work from affecting their marriage, their spouses likely are affected, as partners' stress and emotions are closely linked (Burke & Mikkelsen, 2004; Lavee & Ben-Ari, 2007; Thompson & Bolger, 1999).

For this and a prior study, 19 male police officers and their wives completed daily stress diaries for 1 week and then visited our laboratory where they engaged in a 15-minute conversation about their respective days. The conversation was video-recorded and physiological responses were monitored continuously using small, unobtrusive electrodes attached to each participant's chest, ear, and nondominant hand. A movement detection sensor also was placed under each participant's chair. Participants subsequently watched a video recording of their conversation and provided continuous self-ratings of positive and negative emotional experience. In an initial paper, we reported results of self-rated emotion and physiological data from these couples (Roberts & Levenson, 2001). We found that greater officer job stress was associated with higher self-ratings of negative emotional experience and lower self-ratings of positive emotional experience for officers; lower self-ratings of both positive and negative emotional experience for wives; and decreased body movement but greater cardiovascular arousal for both partners. Therefore, partners' internal emotional state suggested greater tension, reduced positive emotion, and, for wives, possible "numbing" of emotions when officers reported greater job stress. A question remained, however, regarding how couples expressed their emotions at times of increased officer stress.

To address this issue, for the present study, we obtained measures of couples' *observable emotional behavior*. Behavior is a key source of information regarding *how* stress may exact a toll on marriage. We examined displays of hostility and affection (each a composite of several specific behaviors; see Method), as these reflect two poles of couples' emotional lives and are strong predictors of marital outcomes. We coded behaviors in 30-second increments, allowing us to test our hypotheses using a dyadic repeated measures approach that capitalizes on the large number of observations available for each couple. We examined mean levels of behavior and partners' behavioral synchrony.

Based on previous research suggesting stress is associated with positive and negative emotional disengagement—perhaps due to depletion, tendency to hide stress and emotions, and/or attempts to protect one's marriage from stress (Lavee & Ben-Ari, 2007)—and given that withdrawal or suppression of emotions can disrupt the interaction for both partners (Butler et al., 2003)—we hypothesized that when officers reported more job stress (rated in daily diaries and on a questionnaire measuring police stress), officers and their wives would show: (1) fewer displays of hostility behaviors, (2) fewer displays of affection behaviors, and (3) less synchrony of hostility and affection behaviors (i.e., partners' hostility or affection would be less predicted by one another's displays of hostility or affection, respectively).

METHOD

Participants

Police officers were recruited from four local police departments via letters attached to officers' paychecks, announcements at briefing meetings, and flyers. Participation was voluntary; police department officials had no access to information regarding participation. Each couple received $100. This study was approved by the university's committee for protection of human subjects. All participants provided informed consent.

Our sample included 17 male police officers (mean age = 35.8 years, *SD* = 5.3) and their wives (mean age = 33.8 years, *SD* = 5.9). Wives were not in law enforcement (5 worked full-time and 6 part-time outside the home; 6 were full-time homemakers). Nineteen couples originally participated in this research but audiovisual recordings were not obtained for two couples due to technical issues. Participants' racial/ethnic backgrounds were White/European American (58.8%), Hispanic/Latino (14.7%), African American (11.8%), Asian American (11.8%), and multiracial (2.9%). Mean yearly gross household income was $65,000 (*SD* = $20,000). Couples were married 7.7 years on average (*SD* = 7.8) and 13 couples (76.5%) had children. In 11 couples (64.7%), both partners were in their first marriage.

Officers were in law enforcement 8.6 years on average (*SD* = 5.6). Thirteen officers (76.5%) were from a large urban police department; others were from mid-size urban and suburban departments or campus police at an urban university. Twelve officers (70.6%) worked patrol and five held desk jobs (e.g., investigations). Eleven (64.7%) worked day shifts and six night shifts.

Procedure

Interested couples contacted the laboratory and were scheduled for four sessions; the first is relevant to the present investigation. Before their first session, couples were mailed questionnaires and daily diaries to be completed independently. Participants began their diaries one week before their scheduled session and completed them each evening (or morning, for shiftworkers) before going to sleep.

Laboratory sessions lasted approximately 1.5 hours, including psychophysiological recordings and self-report ratings described elsewhere (Roberts & Levenson, 2001). Data collection followed a paradigm by Levenson and Gottman (1983, see also Roberts, Tsai, & Coan, 2007). Couples were asked to refrain from communicating for 8 hours before the session. During the session, couples sat quietly for 5 minutes then engaged in a 15-minute conversation about their respective days. The silent period and conversation were videorecorded. On average, couples spent 32.4% (SD = 31.0%) of their 15-minute conversations discussing police work.

Measures and Data Reduction

Marital satisfaction

Officers and spouses each completed the 15-item Locke–Wallace Marital Adjustment test (Locke & Wallace, 1959). Couples were approximately one standard deviation above the cutoff for marital satisfaction (see Table 1), a score of 100 (Freeston & Plechaty, 1997). Range of scores was wide: officers, 57 to 148; wives, 49 to 146.

Police stress

Officers completed the Police Stress Survey (PSS), which includes three parts (Spielberger, Westberry, Grier, & Greenfield, 1981). Officers rate (0–100 scale) how stressful they perceive each of 60 police work-related events to be (PSS-A; α = 0.95). Scores were in the average range (see Table 1), appearing slightly lower and less variable than a large sample of metropolitan officers (M = 54.2, SD = 26.0, N = 99; Martelli, Waters, & Martelli, 1989). Officers then use forced choice options (0, 1, 2, 3–5, 6–19, or 20+, coded 0–5, respectively) to indicate how frequently they experienced each event during the past month (PSS-B) and year (PSS-C; see Table 1). PSS subscale correlations: PSS-A and PSS-C, $r(15)$ = .54, p = .025; PSS-B and PSS-C, $r(15)$ = .76, p < .001; PSS-A and PSS-B, $r(15)$ = .22, p = .399.

Daily diaries

Using 9-point Likert-type scales (0 = *none* to 8 = *most in my life*), participants rated how much stress and pleasure they experienced from their job and marriage each day, and number of hours worked and with spouse. For each category (e.g., officer job stress, officer marital stress), diary ratings were averaged for 7 days prior to the laboratory session. For job stress and job pleasure, weekly averages excluded days off (see Table 1). Officers' diary reports of job stress the week of the laboratory session were correlated with PSS-B, $r(11)$ = .60, p = .032, but not PSS-A or PSS-C, rs $\leq$ .23, ps > .44. Thus, our measures of police stress were overlapping but not redundant.

Emotional behavior

Behavior coding followed a method developed by Waldinger, Schulz, Hauser, Allen, and Crowell (2004). Five coders (trained research assistants) watched videotapes of each couple's 5-minute silent period and 15-minute conversation, focusing on one partner at a time (the other partner was audible but not visible). Order of coding between partners (i.e., whether officer or wife was coded first) and order of couples coded was varied among coders. After every 30 seconds, coders paused the video, went through a list of 22 specific behaviors (18 from Waldinger and colleagues' original system and 4 additional behaviors), and rated using 10-point Likert-type scales (0 = *not at all* to 9 = *extremely*) how much the target partner showed each behavior (e.g., anger, warmth). For each behavioral code, ratings for 30-second segments were averaged across coders. Coders watched videos in real-time, pausing during segments or taking notes if needed. To minimize coder fatigue, coders were instructed only to code one couple per sitting.

TABLE 1

Model-Estimated Means and Standard Errors, and Raw Means and Standard Deviations, for Marriage- and Job-Related Variables

	Officers	Wives
Diary ratings		
Job stress	**3.5 (0.4)[a]**	**3.1 (0.4)[a]**
	3.5 (1.7)	3.1 (1.4)
Job pleasure	**4.2 (0.4)[a]**	**2.6 (0.4)[b]**
	4.2 (1.6)	2.6 (1.5)
Marital stress	**2.6 (0.4)[a]**	**2.1 (0.4)[a]**
	2.3 (1.4)	2.1 (1.6)
Marital pleasure	**5.0 (0.3)[a]**	**4.2 (0.3)[b]**
	5.2 (1.0)	4.3 (1.3)
Marital satisfaction	**116.0 (6.3)[a]**	**114.8 (6.3)[a]**
	116.0 (28.3)	114.8 (25.1)
Police Stress Survey (PSS) ratings		
Perceptions of events as stressful (PSS-A)	**45.7 (4.7)**	–
	45.7 (19.5)	
Frequency of events: Past month (PSS-B)	**1.6 (0.2)**	–
	1.6 (0.7)	
Frequency of events: Past year (PSS-C)	**2.6 (0.2)**	–
	2.6 (0.9)	
Mean levels of behavior		
Hostility	**2.4 (0.8)[a]**	**2.6 (0.9)[a]**
	2.5 (5.3)	2.7 (6.9)
Affection	**5.3 (0.6)[a]**	**6.8 (0.8)[b]**
	5.3 (7.8)	6.8 (9.1)
Behavioral synchrony	Officers' behavior predicted from wives' behavior	Wives' behavior predicted from officers' behavior
Hostility	**0.45 (0.3)[a]**	**0.83 (0.04)[b]**
Affection	**0.57 (0.03)[a]**	**0.75 (0.03)[b]**

Note. The first line of values (in bold) reflects model-estimated means and standard errors from the repeated measures dyadic models; all significance tests are based on these estimates. The second line of values (not bolded) reflects raw means and standard deviations. Different subscripts in the same row indicate a significant difference, $p < .05$. Diary ratings (0–8 scale) are averages of the 7 days before the laboratory session. Marital satisfaction is based on the Locke–Wallace Marital Adjustment test. PSS-A ratings used a 0–100 scale. PSS-B and PSS-C ratings used forced choice options of 0, 1, 2, 3–5, 6–19, or 20+ (coded as 0 through 5, respectively). Hostility includes six behaviors: angry, contemptuous, criticism, defensiveness, domineering, and irritable. Affection includes three behaviors: affectionate, humorous, and warm. Behaviors were coded on a 0–9 scale in 30-second intervals. For diary variables, $n = 13$ for officers and $n = 12$ for wives; for all other variables, $N = 17$.

For consistency, coders rated all 18 behaviors in Waldinger and colleagues' original coding system (plus four additional behaviors). A previous factor analysis of these 18 behaviors yielded four scales (Waldinger et al., 2004), two of which were of theoretical interest for the present study: (1) *hostility*, comprising six codes: *angry*, *contemptuous, critical*, *defensive*, *domineering*, and *irritable* (officers: $\alpha = .84$; wives: $\alpha = .90$), and (2) *affection*, comprising three codes: *affectionate*, *humorous*, and *warm* (officers: $\alpha = .64$; wives: $\alpha = .70$). These are strong predictors of marital outcomes (Gottman, Coan, Carrere, & Swanson, 1998; Matthews, Wickrama, & Conger, 1996; Waldinger et al., 2004).

Inter-rater reliability was assessed using a procedure described by Rosenthal and Rosnow (1991) for calculating reliability of composite scores from multiple raters (see also Waldinger et al., 2004). Composite interrater reliability across all coders was .90 for officers and .87 for wives for hostility, and .99 for officers and .98 for wives for affection.

Data Analysis

We tested whether officer stress predicted (1) mean levels of officers' and wives' hostility and affection behaviors, and (2) synchrony of officers' and wives' hostility and affection behaviors (i.e., the extent to which emotion expressed by one partner predicted emotion expressed by the other during the same 30-second period). We assessed behavioral outcomes every 30 seconds for 15 minutes, making it possible to use relatively powerful quantitative techniques, even with a small number of participants. Specifically, we used SAS PROC MIXED and implemented dyadic repeated-measures models, which included the necessary controls for possible interdependence between spouses and among repeated behavioral observations (see Kenny, Kashy, & Cook, 2006). Models treated the dyad as the unit of analysis and adjusted all degrees of freedom to reflect the nesting of multiple observations within individuals and of individuals within couples. We used full maximum likelihood estimation for all models.

To test hypotheses regarding levels of hostility and affection we used a "two-intercept" model (Kenny et al., 2006) to account for the various sources of nonindependence. This approach uses dummy variables to distinguish men and women and estimates separate parameters for men's and women's fixed effects, random intercepts, intercept variances, and covariance of partners' intercepts. Separate residual variances are also estimated for men and women, along with the covariance between partners' residuals and autocorrelation of residuals within-person. Predictors in these models were all at Level 2 (e.g., officer stress past week, past month, past year, general perceived stress) and thus are treated as fixed-effects. Because Level-2 variables are only measured once for each participant, but outcomes (affection and hostility) are measured repeatedly, such models essentially provide a highly reliable estimate of associations between stress and emotional behavior. In other words, these models are similar to correlating the stress measures with highly reliable measures of emotional behavior aggregated over many observations.

To test hypotheses regarding synchrony we also used a two-intercept model with separate fixed effects, random intercepts, and intercept variances for men and women, as well as the covariance of partners' intercepts. In these models, however, the dependencies in the residuals are now accounted for as fixed effects (Butler, 2011; Butner et al., 2007). In other words, the correlation of one partner's behavior with the other's same behavior is now estimated by a Level-1 fixed effect parameter, rather than by specifying structure for the residuals. Thus in these models one partner's affection (or hostility) is predicted from the other partner's concurrent affection (or hostility), officer stress, and the interaction of the partner's concurrent affection (or hostility) and officer stress. Including the partner behavior variables as random effects did not improve model fit and so for parsimony they are treated as fixed effects. In preliminary analyses we investigated time-lagged models (i.e., one partner's emotional behavior predicting the other partner's behavior at the subsequent time period) and found that all but one of the parameter estimates were in the same direction as those obtained using the concurrent models (i.e., partners predicting each other's behavior during the same concurrent 30-second time period). Here, we only report results from the concurrent models.

Models were run separately for each measure of officer stress, namely (1) diary reports of job stress the week of the laboratory session, (2) frequency of stressful police events the past month (PSS-B), (3) frequency of stressful police events the past year (PSS-C), and (4) general perceptions of police work as stressful (PSS-A). Relationship satisfaction measures (e.g., marital stress and pleasure ratings per couples' diaries, and global marital satisfaction ratings per the Locke–Wallace Marital Adjustment test) were associated with levels of hostility and affection (see Descriptive Results) and so were included as control variables. We also investigated relationship satisfaction variables as

mediators and moderators of all effects, but no consistent findings emerged and those analyses are not reported here. For wives working outside the home, wives' own ratings of job stress the week of the laboratory session were included as a control variable in models assessing the effects of officer job stress (per diary reports) the week of the session.

RESULTS

Descriptive Results

Based on daily diaries, officers reported greater job pleasure, $t(10) = 2.59$, $p < .03$, and marital pleasure, $t(12) = 2.55$, $p < .03$, than their wives. Officers and wives did not differ in amount of job stress, marital stress, or marital satisfaction reported. During couples' conversations, both officers and their wives displayed more affection behaviors than hostility behaviors, $t(154) = -2.32$, $p < .03$ (officers), and $t(154) = -6.81$, $p < .001$ (wives). Wives showed greater mean levels of affection behaviors than officers, $t(1341) = 2.34$, $p < .02$; officers and wives did not differ in mean levels of hostility (exploratory comparisons with larger, nonpolice samples in similar paradigms [Gottman & Levenson, 1999; Waldinger et al., 2004] suggest mean levels of behavior may have been lower, and the positive-to-negative behavior ratio higher, in our sample).

For wives, higher global marital satisfaction (Locke–Wallace) was associated with more affection, $t(1339) = 2.36$, $p < .02$, and less hostility, $t(1339) = -3.53$, $p < .001$. Similarly, greater marital pleasure (diary reports) was associated with less hostility for both officers, $t(1023) = -2.21$, $p < .03$, and wives, $t(1023) = -1.98$, $p < .05$. Finally, greater marital stress (diary reports) was associated with more hostility for wives, $t(1023) = 2.12$, $p < .04$.

For both hostility and affection, officers' behavior predicted wives' behavior, and wives' behavior predicted officers' behavior (i.e., bidirectional predictability). Because the model we used is a dyadic extension of multiple regression it provides independent estimates of officers' behavior predicting their wives' behavior and vice-versa. Therefore, synchrony can be asymmetric in these models, and in fact we found that strength of association was stronger for officers' behavior predicting wives than the other way around (sex difference for hostility: $b = 0.37$, $t[1339] = 8.28$, $p < .001$; sex difference for affection: $b = 0.18$, $t[1339] = 4.21$, $p < .001$). Such asymmetry can be interpreted as meaning that variance in wives' behavior is more fully accounted for by their husbands' behaviors than the other way around. Or, equivalently, more of officers' behavior remains unaccounted for once we take into account their wives' behavior than vice-versa (for example, asymmetry might occur if women were more sensitive to their husband's cues—and hence their behavior was more influenced by them—than vice-versa).

Model-estimated means and standard errors for our primary marriage- and job-related variables are presented in Table 1. These estimates are provided by the repeated measures dyadic models, which take the pattern of residual errors into account and thus are a more accurate representation of the multivariate covariance structure underlying the data. All significance tests are based on these estimates. Model-estimated means and raw means were similar or identical in most cases. For reference, raw means and standard deviations also are presented in Table 1.

Officer Stress and Mean Levels of Couple Emotional Behavior

Hostility

In support of our hypothesis, for two measures of officer stress, greater stress predicted lower mean levels of officer hostility behaviors during couple interactions, $t(1023) = -2.63$,

TABLE 2

Parameter Estimates for Police Officers' Job Stress Predicting Mean Levels of Couple Emotional Behavior and Behavioral Synchrony

	Hostility behaviors				Affection behaviors			
	Mean level		Synchrony		Mean level		Synchrony	
	Officers	Wives	Officer predicted from wife	Wife predicted from officer	Officers	Wives	Officer predicted from wife	Wife predicted from officer
Officers' job stress past week (diaries)	−0.45	−0.35	−0.09*	−0.01	0.28	−0.58	0.04*	−0.05
Officers' job stress past month (PSS-B)	−0.69*	−0.59	−0.12*	0.09	0.65	−1.45	0.17*	−0.18*
Officers' job stress past year (PSS-C)	−0.28	−0.30	0.03	0.12*	0.89	−0.51	0.07*	−0.12*
Perceptions of police events as stressful (PSS-A)	−0.03*	−0.03	0.001	0.001	0.02	−0.05	0.001	−0.01*

Note. Hostility and affection behaviors are composites of behaviors displayed during couples' conversations. PSS = Police Stress Survey. With respect to their interpretation, parameter estimates may be considered equivalent to unstandardized regression coefficients.

*p < .05.

$p < .002$ (police stress past month), and $t(1023) = −2.08$, $p < .04$ (perceptions of police work as stressful). Officers' reports of stress did not predict wives' hostility behaviors during couples' interactions.

Affection

Officer stress did not significantly predict mean levels of affection behaviors for officers or their wives.

Parameter estimates from dyadic models of officer stress predicting mean levels of couple emotional behavior are presented in Table 2.

Officer Stress and Synchrony of Couple Emotional Behavior

Hostility synchrony

In support of our hypothesis that greater officer stress would predict less synchrony of couples' hostility behaviors (i.e., that partners' hostility would be less mutually associated), for two measures of officer stress officers reporting more stress showed less synchrony with their wives' hostility behaviors, $t(860) = −5.01$, $p < .001$ (stress past week), and $t(1019) = −2.63$, $p < .01$ (stress past month). In other words, when officers reported more recent stress, officers' hostility was less strongly predicted by their wives' hostility.

In contrast, for one measure of officer stress—police stress the past year—greater officer stress predicted *more* hostility synchrony for wives, $t(1019) = 2.49$, $p < .02$. In other words, when officers reported more stress the past year, their wives' hostility was more strongly predicted by officers' hostility.

Affection synchrony

In support of our hypothesis that greater officer stress would predict less synchrony of couples' affection behaviors, for three of four measures of officer stress, greater stress was associated with less affection synchrony for wives (i.e., wives' affection was less strongly predicted by officers' affection): stress past month: $t(1019) = -3.70$, $p < .001$; stress past year: $t(1019) = -3.33$, $p < .001$; perceptions of stress: $t(1019) = -2.24$, $p < .03$.

Contrary to our hypothesis, officers reporting more stress showed *more* synchrony of affection (i.e., officers' affection was more strongly predicted by their wives' affection) for three of four stress measures: past week: $t(860) = 1.99$, $p < .05$; past month: $t(1019) = 4.31$, $p < .001$; past year: $t(1019) = 2.42$, $p < .02$.

Parameter estimates from dyadic synchrony models of officer stress predicting synchrony of couple emotional behavior are presented in Table 2.

Additional Analyses: Officers' Job Pleasure

We explored relationships between officers' ratings of job pleasure from the daily diaries and partners' displays of hostility behaviors, affection behaviors, and synchrony of hostility and affection. None of these relationships were significant, nor did a clear pattern of findings emerge.

DISCUSSION

We investigated the relationship between male police officers' reports of job stress and officers' and their wives' emotional behavior during a conversation about their day, leveraging the power that comes from the large number of observations per couple. We examined emotional behavior as a vehicle for revealing *how* a police officer's experience of stress may influence couple interactions and, over time, marital outcomes (Gottman & Levenson, 2002).

Police Stress Associated with Less Officer Hostility during Marital Interaction

We expected officers experiencing greater stress might be too physically and emotionally depleted to engage in highly emotional interactions with their wives. Indeed, officers reporting greater job stress showed fewer hostility behaviors during marital interaction. Studies using self- and partner-report similarly have found that police officers—and men in general—withdraw socially after high workload or negatively arousing workdays (Alexander & Walker, 1996; Repetti, 1989; Schulz et al., 2004). At times of greater stress, officers may *feel* more negatively but attempt to contain this negativity during marital interactions to avoid conflict or protect their spouse and marriage from the potentially negative effects of police stress (c.f., Burke & Mikkelsen, 2004; Lavee & Ben-Ari, 2007). Supporting this idea, previously we found that in response to these same conversations, officers reported feeling more negative and less positive emotion when experiencing greater job stress (Roberts & Levenson, 2001). Our present findings therefore offer some behavioral evidence to support notions that officers do manage emotions in their personal as well as professional lives (Brown & Grover, 1998; Schaible & Gecas, 2010).

Police Stress Associated with Different Patterns of Behavioral Synchrony for Officers and Wives

Striking in our sample were pronounced synchrony effects, especially for affection behaviors, in opposite directions for officers and their wives. When officers reported more job stress, they were less likely to display hostile behaviors when their wives did so, and surprisingly more likely to display affection behaviors when their wives did so; conversely, wives were more likely to show hostility behaviors and less likely to show affection behaviors when officers did.

Although we cannot determine whose behavior was driving the interaction because coding was done in simultaneous 30-second increments (see below), one interpretation of these rather unexpected findings is that with greater officer stress, officers attend more closely to wives' affection displays, perhaps to deflect stress or derive more enjoyment from marital interactions (e.g., per a "compensatory" model of work-family interaction; Staines, 1980). Wives, however, may be attuned to officers' underlying stress and negative emotions, and/or to officers' apparent "down-regulation" of negative emotional behavior. Consequently, wives may be less likely to show affection behaviors when officers do so. Withdrawal of positive emotions can be particularly harmful for marriage (Gottman & Levenson, 2002). We cannot determine whether wives are withdrawing affection in response to officers' affection, but our data nevertheless indicate job stress may be associated with fewer opportunities for shared moments of affection.

Limitations

We describe our results as "preliminary" to emphasize they must be considered in light of several limitations. First and foremost, our small nonrandom sample engenders concerns about generalizability. We studied 17 couples and they self-selected into this research. On average, couples were above the mean in marital satisfaction, potentially limiting applicability of our findings for distressed couples. The private nature of law enforcement culture and oftentimes negative media portrayals of police families (e.g., domestic violence; Gauthier & Gregory, 2007) may have deterred some couples from participating in a study involving observed marital interactions. Additionally, in our sample police work and gender are confounded. Although most police officers are male (United States Department of Justice/Federal Bureau of Investigation, 2010), disentangling this confound is essential. Moreover, lack of a control group limits any conclusions about police couples specifically versus other types of couples. Additionally, although a study strength was examining behaviors in 30-second increments, versus examining conversation-level means, we did not assess moment-to-moment behavioral or conversational turns, therefore limiting conclusions about which spouse's behavior was driving the other.

More generally, limitations and strengths of our observational approach are that it reflects a single snapshot of couple interactions. Although it is difficult to know the true nature of couples' interactions based on one conversation in the laboratory, such snapshots are useful for theory-building and developing hypotheses to test in future studies. They also have predictive utility and reveal interaction patterns that may not be evident from self-report or from behavioral assessments with less nuanced analyses (see Nesselroade, Gerstorf, Hardy, & Ram, 2007, for discussion of advantages of in-depth idiographic approaches). Without insight into subtle behavioral patterns, couples may miss problematic interaction patterns or positive relationship behaviors that could be encouraged (e.g., officers tracking wives' affection behaviors more closely at times of greater stress).

Implications

To gain a more nuanced understanding of police job stress and marriage, we examined emotional behaviors officers and their wives displayed during actual couple interactions. Emotional behavior during routine marital interactions, such as those studied here, reveals how daily interactions can translate into successful or unsuccessful longer-term marital outcomes (Driver & Gottman, 2004). Our results offer indications of how job stress may shape couple interaction patterns in police marriages, and potentially nonpolice couples.

We had some expected and some more novel results. Our findings offered good news, for example, that on a daily basis officers reported as much pleasure as stress from their jobs, and couples displayed more affection than hostility. Nevertheless, job stress and not job pleasure "spilled over" into couples' interactions (Staines, 1980).

We believe officers may be doing what they feel is best for their marriage and themselves by minimizing hostility and, perhaps, attending more closely to wives' affection. Instincts to avoid stress or conflict may backfire, however, by limiting opportunities to address problems and achieve genuine emotional intimacy (Wile, 1993). If officers attempt to avoid or disguise negative affect it may be dissatisfying, particularly for wives—as perhaps suggested by wives' decreased affection synchrony—and have negative outcomes for officers as well (Brown & Grover, 1998).

Interventions that focus on attending to rather than trying to avoid or escape negative feelings may be useful for officers (e.g., mindfulness-based interventions; Grossman, Niemann, Schmidt, & Walach, 2004). Couples may benefit from interventions that help them cultivate warmth, humor, and affection and determine how to discuss stress and conflict in ways that build emotional intimacy. Police spouses should be made aware that their own emotions and responses to officers' stress can have a considerable impact on marital interaction and consequently the marriage.

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