Socioeconomic Status, Resources, Psychological Experiences, and Emotional Responses: A Test of the Reserve Capacity Model

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The current study used ecological momentary assessment to test several tenets of the reserve capacity model (L.C. Gallo & K. A. Matthews, 2003). Women (N = 108) with varying socioeconomic status (SES) monitored positive and negative psychosocial experiences and emotions across 2 days. Measures of intrapsychic and social resources were aggregated to represent the reserve capacity available to manage stress. Lower SES was associated with less perceived control and positive affect and more social strain. Control and strain contributed to the association between SES and positive affect. Lower SES elicited greater positive but not negative emotional reactivity to psychosocial experiences. Women with low SES had fewer resources relative to those with higher SES, and resources contributed to the association between SES and daily experiences.

Considerable research has indicated that socioeconomic status (SES) has a powerful influence on health (Adler et al., 1994; Lynch & Kaplan, 2000). The association is monotonic, so that at every point of the gradient, individuals with lower SES show greater vulnerability to diverse causes of morbidity and mortality when compared with their higher SES counterparts (Adler, Boyce, Chesney, Folkman, & Syme, 1993; Macintyre, 1997). SES appears to shape health through varied pathways, including health behaviors, physiological mechanisms, environmental conditions, access to health care, and psychosocial factors (Adler & Ostrove, 1999; Andrulis, 1998; Robert & House, 2000).

Gallo and Matthews (2003) developed the reserve capacity model as a framework for understanding how emotional factors, in particular, can contribute to the socioeconomic gradient in health. This model asserts that lower SES environments foster greater exposure to stress, which, in turn, elicits more negative and less positive emotions. In addition, lower SES environments can lead to greater use and depletion of mitigating psychosocial resources as well as fewer opportunities to develop resource reserves. Resource discrepancies and changes may contribute directly to emotional distress and may contribute to the relatively greater emotional reactivity to stress exhibited by individuals with low SES. Subsequently, negative emotions and low positive emotions may foster deleterious health outcomes (Gallo, Ghaed, & Bracken, in press; Gallo & Matthews, 2003). The current study examined several tenets of this framework, using ecological momentary assessment (EMA) to assess daily psychosocial experiences.

SES, Stress, Resources, and Emotions

Substantial research has suggested that SES exhibits an inverse, typically linear association with negative emotions and emotional disorders (for reviews, see Gallo & Matthews, 2003; Lorant et al., 2003). In part, this relationship may reflect variation in stress exposure attributable to socioeconomic environments (Baum, Garofalo, & Yali, 1999). Nonetheless, some research has suggested that even after accounting for stressful experiences, individuals with lower SES report more emotional distress than their higher SES counterparts (Brown & Harris, 1978; Kessler & Cleary, 1980; McLeod & Kessler, 1990; Turner & Noh, 1983). In other words, exposure does not tell the whole story—individuals with low SES also exhibit differential emotional reactivity to stress.

To understand this phenomenon, it may be informative to consult current models of stress, which emphasize the roles of material, social, and personal resources in determining psychological

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and other stress consequences (Baltes, 2003; Hobfoll, 1989; Holahan & Moos, 1991; Norris & Kaniasty, 1996). For example, the conservation of resources model proposes that stress results directly from the threat of lost resources, actual lost resources, or resource investment that fails to generate gain (Hobfoll, 1989, 1998, 2002). When faced with losses and low levels of resources with which to cope, further losses as well as an inability to garner additional resources may ensue, fostering loss spirals and escalating damage (Holahan, Moos, Holahan, & Cronkite, 1999; Wells, Hobfoll, & Lavin, 1997, 1999). Within this perspective, *resources* refer broadly to conditions (e.g., marriage), tangible and financial reserves, as well as social and personal assets. A plethora of research in diverse populations supports this model, for example, in relation to psychological adjustment or physical symptoms following natural disasters (Freedy, Saladin, Kilpatrick, & Resnick, 1994; Freedy, Shaw, Jarrell, & Masters, 1992; B. W. Smith & Freedy, 2000) and in association with chronic illness (Lane & Hobfoll, 1992), poverty (de Groot, Auslander, Williams, Sherraden, & Haire-Joshu, 2003), and economic losses (Ennis, Hobfoll, & Schroder, 2000).

A converging line of research in the aging field has emphasized that the ability to deal with stress both biologically and psychologically is adequate among many elderly people but that aging influences *resilience*, or the ability to recovery quickly after stress (Matthews, 2000). The loss of resilience may be due to less reserve for coping with stress. A similar analysis has been applied directly to the observed relationship between low SES and cognitive decline related to aging or diseases such as Alzheimer's. Specifically, observers have suggested that the association between low educational attainment and cognitive decline is not simply due to the fact that less educated people have lower mental abilities throughout their lives but that education encourages the development of a set of reserves that allows more efficient processing or develops compensatory processes to protect against age-related decrements in functioning (Stern, 2002; Stern, Gurland, Tatemichi, & Tang, 1994).

Gallo and Matthews (2003) applied these concepts in developing the reserve capacity model (see Figure 1)—a framework explicating the roles of emotions in the SES and physical health gradient. SES implies a given level of financial and tangible resources, and individuals with low SES may frequently experience losses or investments of effort that fail to generate resource gains in this domain. Furthermore, SES demonstrates an inverse association with downstream social and personal resources that can otherwise buffer stress, including social support, perceived control, self-esteem, and optimism (Gallo & Matthews, 2003; Taylor & Seeman, 1999). Studies applying resource models in the context of natural disasters have shown consistently that individuals with low SES (i.e., income, education) not only have fewer resources but also benefit less from resource mobilization during

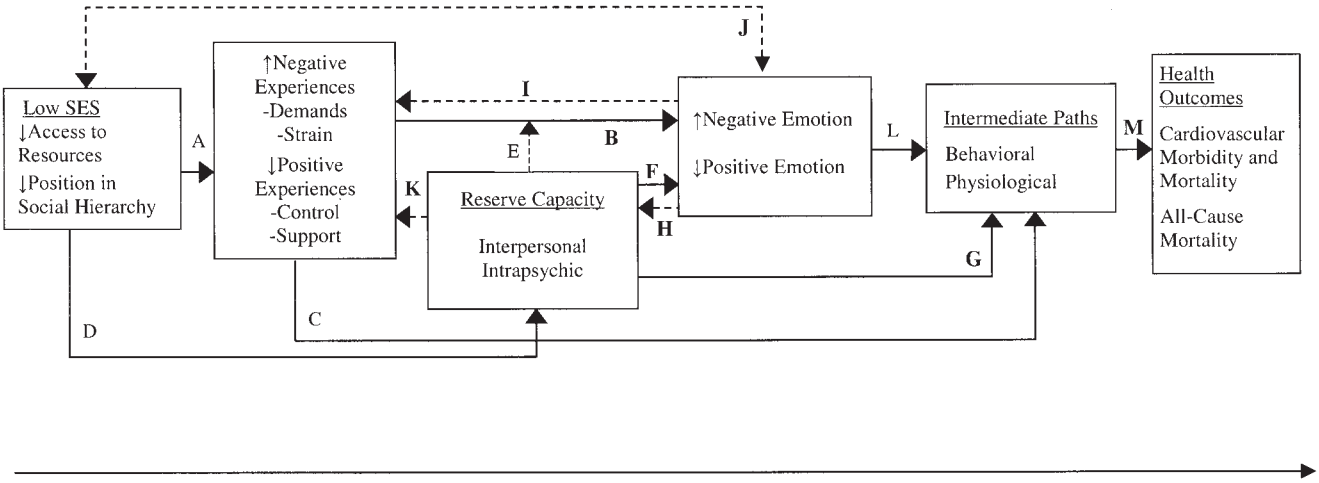

Figure 1. The reserve capacity model of the dynamic associations among socioeconomic status (SES), stress, psychosocial resources, emotions, and health. Arrow A shows the direct influence of SES on positive and negative psychosocial experiences. Arrow B indicates the direct impact of positive and negative experiences on positive and negative emotion. Arrow C shows the effects of stress on intermediate pathways to health outcomes. Arrow D shows that socioeconomic contexts affect the nature of the reserve capacity. Arrow E (dashed line) shows that the reserve capacity represents a potential moderator of the association between psychosocial experiences and emotions. Arrow F shows the direct link between reserve capacity resources and emotions. Arrow G shows that resources also affect intermediate pathways. Arrows H and I (dashed lines) indicate the possible reverse influence of emotional factors on reserve capacity resources and positive and negative psychosocial experiences, respectively. Arrow J (dashed, bidirectional line) shows that SES may have a residual influence on emotions that is not explained by psychosocial experiences or resources, and that emotional factors may also have a reverse influence on SES. Arrow K (dashed line) shows the direct link between reserve capacity resources and psychosocial experiences. Arrows L and M show that emotional factors may affect health outcomes through physiological and behavioral factors. Adapted from "Understanding the Association Between Socioeconomic Status and Physical Health: Do Negative Emotions Play a Role?" by L. C. Gallo & K. A. Matthews, 2003, *Psychological Bulletin, 129,* Figure 1, p. 34. Copyright 2003 by the American Psychological Association.

times of stress and are therefore more likely to suffer negative consequences (Kaniasty & Norris, 1995; Rini, Dunkel-Schetter, & Wadhwa, 1999). Additional research has suggested that psychosocial resources have a greater impact on emotional outcomes in lower SES groups than in individuals with higher SES (Griffin, Fuhrer, Stansfeld, & Marmot, 2002; Lachman & Weaver, 1998) and that SES-related differences in emotional distress can be explained by discrepancies in resources such as social support and perceived control (Bailis, Segall, Mahon, Chipperfield, & Dunn, 2001; Link, Lennon, & Dohrenwend, 1993; Turner, Lloyd, & Roszell, 1999). Hence, resources may be key to understanding absolute differences in emotional factors related to SES, and they may also help explain why individuals with lower SES show greater stress reactivity. The reserve capacity model expands on current theory and research by applying these concepts in predicting objective physical health outcomes and the graded association between SES and health.

The Current Study

The current study used EMA to examine several tenets of the framework presented in Figure 1, including the hypothesis that SES affects emotions via stress exposure; that SES moderates stress responses; and that resources are important factors in the associations among SES, stress, and emotions, in a group of employed women with relatively high-, medium-, and low-status jobs. We focused exclusively on women because they are overrepresented in low-SES contexts (Proctor & Dalaker, 2003) and are more vulnerable to negative emotions and emotional disorders when compared with men (Kessler, McGonagle, Nelson, & Hughes, 1994). Furthermore, the role of SES in women's health has been understudied to date (Adler & Coriell, 1997).

EMA involves immediate reporting of experiences in the natural environment rather than reconstruction of information from memory and allows the collection of important contextual information (Bolger, Davis, & Rafaeli, 2003; Stone et al., 1996). The current study therefore expanded on prior research that has relied nearly exclusively on aggregate self-report assessments to examine associations among stress, resources, and emotions (for an exception, see Matthews et al., 2000). Research has suggested that people may provide inaccurate descriptions of behaviors, affect, or cognitions when asked to supply global, retrospective reports (Bradburn, Rips, & Shevell, 1987; Stone et al., 1998; C. P. Thompson, Skowronski, Larsen, & Betz, 1996). For example, recall may be biased by heuristic strategies reflecting participants' beliefs about their usual experiences, emotions, or behavior. Retrospective, global reports can also be influenced by strong emotions or salient experiences that occur close in time to instrument completion. In this regard, the current study provided a unique opportunity to test the application of resource models within the applied context of everyday life.

We also attempted to broaden the literature by examining both objectively positive and negative experiences and emotions. Positive affect may have important implications for physical and psychological health beyond the impact of negative affect (Gallo et al., in press), but very little research has considered the association between SES and positive emotions to date (Gallo & Matthews, 2003). Furthermore, responses to positive psychosocial events have been neglected in the research examining the degree to which SES moderates emotional responses to life experiences.

Psychosocial experiences and emotions were recorded throughout 2 days of monitoring. Readings were taken across home and work environments, allowing examination of whether the associations among SES, psychosocial experiences, and emotions differed according to context. Stressful job experiences may account for much of the association between SES and psychological distress (Link et al., 1993), but a previous EMA study found that men and women with lower occupational status experienced more interpersonal conflict both at home and at work when compared with their higher SES counterparts (Matthews et al., 2000).

In examining the roles of resources in the proposed associations, we focused on personal and social factors that have been shown to moderate the effects of stress; to relate to SES; or to mediate or moderate associations between SES, stress, and emotional distress (Gallo & Matthews, 2003; Taylor & Seeman, 1999). Specifically, we examined the intrapsychic resources of *mastery* (i.e., control), or the degree to which one believes he or she is able to affect important outcomes in his or her life; *dispositional optimism*, or the extent to which a person holds generalized expectancies that good things will happen; and *self-esteem*, or the valence of an individual's self-concept. In addition, we assessed positive and negative aspects of interpersonal functioning to form an estimate of social resources, specifically, *perceived social support*, the perception that help from others would be available if needed, and *social conflict*, the frequency with which someone experiences negative interpersonal interactions such as arguments, criticism, or excessive demands. Although social conflict experiences do not represent a resource (or lack thereof) per se, their presence can mitigate the benefit gained from supportive social relationships (e.g., Major, Zubek, Cooper, Cozzarelli, & Richards, 1997). Consistent with previous research (Hobfoll, 2001), measures of resources were aggregated to reflect a generalized underlying resource bank.

On the basis of prior research and theory and consistent with the framework depicted in Figure 1, we hypothesized that lower SES would be associated with lesser positive emotions and greater negative emotions in daily life (Hypothesis 1; Figure 1, Arrow J); lower SES would relate to more negative experiences (i.e., environmental demands; social strain) and less positive psychosocial experiences (i.e., perceived control; social support provision or receipt) in everyday life (Hypothesis 2; Figure 1, Arrow A); and differential exposure to positive and negative experiences would help explain SES-related emotion differences (Hypothesis 3; Figure 1, Arrows A, B, and J). We further predicted that SES would moderate the effects of daily experiences on affect (i.e., interaction effects), so that lower SES would predict relatively stronger emotional responses (Hypothesis 4; Figure 1, Arrows A, B, J, and E). Although the effects of SES on emotional reactivity have not been explored in the context of positive emotions or experiences previously, we assumed that lower SES might predict relatively stronger positive and negative emotional responses to both positive and negative experiences.

Consistent with resource models of stress and coping, we hypothesized that SES would be inversely associated with aggregate personal resources (Hypothesis 5; Figure 1, Arrow D) and that greater resources would predict reports of more positive and less negative daily experiences (Hypothesis 6; Figure 1, Arrow K) and more positive and less negative momentary emotions (Hypothesis 7; Figure 1, Arrow F). Further, we hypothesized that resource levels might explain associations of SES with daily psychosocial

and emotional experiences (Hypothesis 8; i.e., Figure 1, Arrows D, F, and K) and might also underlie the interactive effects of psychosocial experiences and SES on emotions (Hypothesis 9; i.e., Figure 1, Arrows A, B, E, and J). The final steps of the reserve capacity framework, intermediate pathways and health outcomes, were not tested in the current research.

Method

Participants

One hundred fourteen women self-referred for the study in response to flyers, university e-mail announcements, newspaper advertisements, and word of mouth. Generally, advertisements stated that women were needed for a study of social experiences and blood pressure and listed the eligibility criteria. Variations on the flyer and announcement were targeted specifically toward professional-white-collar, clerical-administrative support, and service-blue-collar workers to ensure enrollment of women with a range of SES. To be eligible, women had to be employed 35 hr per week or more during daytime or evening hours and married or living as if married. These restrictions maximized variation in psychosocial experiences during the 2 days of monitoring. A primary purpose of the study, not discussed in the current report, was to examine the effects of occupation and job strain on ambulatory blood pressure and heart rate responses (Gallo, Bogart, Vranceanu, & Walt, 2004). Therefore, women who self-reported any cardiovascular diseases or use of medication with autonomic or cardiovascular effects were excluded from this research. Women were paid $60 or $75 for their participation. (The incentive payment was increased after several months of data collection to facilitate sample accrual.) Five participants were excluded from the current report because they did not provide usable diary data, generally consequential to equipment failure, and 1 participant was excluded because she did not complete any questionnaires, resulting in a final sample size of 108.

Procedure

EMA was scheduled for 2 consecutive workdays, on Mondays through Thursdays. Before work on the 1st day of monitoring, participants attended a laboratory appointment where they received a detailed explanation of the study and provided written informed consent. The research technician then provided the participant with a handheld computer and thoroughly explained the diary and its use. Participants were then given a packet of questionnaires to complete before the following morning, when they returned to the laboratory to have their data downloaded and the handheld computer reset. The EMA period was scheduled to end 1 hr before the participant's bedtime on each day of monitoring. Participants were instructed to complete a diary entry immediately following inflation of their ambulatory blood pressure cuff, which occurred at 40- to 50-min (randomly varying) intervals throughout the 2 days. On average, each participant provided 30.05 readings ($SD = 10.28$). Variation in the number of readings reflected influences such as distinct sleep and work cycles, noncompliance, and data lost because of equipment malfunction.

SES

SES was represented by three categories of occupational status,[1] coded according to the Duncan Socioeconomic Index (SEI; Duncan, 1984). The lowest SES group ($n = 18$) had Duncan SEI codes within the category "service occupations," such as parking attendant or janitorial worker. The middle-SES group ($n = 50$) had Duncan SEI codes within the subcategory "administrative support occupations, including clerical," such as secretary, accounting clerk, or data entry in the broader category "technical, sales, and administrative support." The highest SES group ($n = 40$) had Duncan SEI codes within the category "executive, administrative, and managerial occupations," such as associate professor, assistant dean, or accountant. These groups are hereafter referred to as the "low," "medium," and "high" SES groups.

Resources: The Reserve Capacity

The reserve capacity was represented by a composite of validated and widely used measures of intrapsychic and interpersonal resources. Perceived control was assessed with Pearlin and Schooler's (1978) Personal Mastery Scale (for the current sample, $\alpha = .73$), optimism-pessimism was assessed with Scheier, Carver, and Bridges's (1994) Life Orientation Test—Revised (reverse coded so that higher scores indicated a more pessimistic explanatory style; $\alpha = .77$), and self-esteem was assessed with the 7-item version of Rosenberg's Self-Esteem Scale (Rosenberg, 1965; $\alpha = .74$). Perceptions of social support were evaluated with the 12-item version of the Interpersonal Support Evaluation List (Cohen & Hoberman, 1983). This scale provides assessments of Appraisal Support, Belonging Support, and Tangible Support, which can be combined to form a total scale as an overall assessment of perceived support. We used the total score in the current research ($\alpha = .83$). Finally, social conflict was assessed with the Inventory of Negative Social Interactions (Lakey, Tardiff, & Drew, 1994). This scale consists of 40 items evaluating the extent to which the respondent has experienced a variety of negative interactions in the past month (e.g., how often someone "asked you to do something unreasonable," "criticized you," etc.), on a 5-point scale ranging from 1 (*not at all*) to 5 (*almost every day*). Lakey et al. (1994) reported good construct validity and internal consistency for the scale (for the current sample, $\alpha = .92$).

Pearson product–moment correlations revealed that associations among the reserve capacity scales were generally of moderate strength. All but one bivariate association was statistically significant, and correlations ranged from $r(106) = .22$ (pessimism and social conflict) to $r(106) = -.55$ (pessimism and self-esteem; all $ps < .05$). The exception was the association between social conflict and self-esteem, which was nonsignificant, $r(106) = -.16$, $p < .10$. The strength of association among the scales supports the approach of combining them to reflect the underlying resource bank. This strategy also reduces the number of statistical analyses, thereby limiting Type I error risk. Each scale was standardized prior to combination (i.e., $M = 0$, $SD = 1$), and the reserve capacity was represented as the aggregate sum of resilient resources (i.e., control, self-esteem, social support) minus stress-exacerbating resources (i.e., pessimism, social conflict). Two participants were missing one or more of the scales composing the resource composite, and analyses involving resources were therefore based on 106 participants.

Handheld Computer Diary

Participants were provided with a Palm brand handheld computer (Palm Inc., Santa Clara, CA). The diary was programmed using the Experience Sampling Program (Feldman Barrett, n.d.). Questions were presented in fixed order on a liquid crystal display, and participants indicated their responses by pressing a stylus to the touch-sensitive screen. Each entry was automatically time stamped, and data were downloaded after each day of monitoring.

The diary consisted of 39 items, many of which were derived from the Diary of Ambulatory Behavioral States (Kamarck et al., 1998). The current study examined items assessing location and affect at the time that the

[1] Different indicators of SES may provide distinct information. Therefore, we examined income and education as alternative SES markers. However, to minimize the number of analyses and protect against Type I error, we focused on occupational status because, overall, it was the most consistent predictor of psychosocial experiences (although findings were similar across indicators) and because the study was originally designed around this SES indicator.

diary entry was prompted, environmental demands and perceived control in the 10 min prior to the entry, and the nature of the current or most recent social interaction. Consistent with Reis and Wheeler (1991), *social interaction* was defined as a "give and take exchange with others that may or may not involve conversation." All items were assessed on a 5-point Likert scale, with stems varying across sets of items.

Psychosocial diary items were standardized and collapsed into subscales prior to analysis to reduce the number of statistical tests. Affect was represented by two scales that assessed negative affect (with the words *Sad*, *Angry*, *Stressed*; $\alpha = .84$) and positive affect (with the words *Happy*, *Excited*; $\alpha = .55$) at the time of cuff inflation. These scales were weakly correlated, total correlation, $r(3,251) = -.18$, $p < .01$, suggesting relatively independent affective domains. Psychosocial experience items were subjected to a principal-components analysis with varimax rotation to identify underlying factors. This analysis revealed four factors representing perceived environmental demands ("working hard," "working fast," "juggling several activities at once," "difficulties piling up"; $\alpha = .80$), perceived control ("chose to schedule current activity now," "could change current activity if wanted to," "felt able to control important things"; $\alpha = .71$), social intimacy/support ("intimacy of interaction," "I disclosed," "other disclosed," "I helped/supported other[s]," "other helped/supported me"; $\alpha = .82$), and social strain (degree of conflict/disagreement, degree of unpleasantness, degree to which "felt bossed around"; $\alpha = .74$). Total correlations among the positive and negative experiences scales were low to moderate and ranged from $r(3,251) = -.05$, $p < .01$ (support and conflict) to $r(3,251) = .36$, $p < .001$ (demands and conflict).

Analytic Strategy

Most hypotheses were tested via hierarchical linear modeling (HLM; Bryk & Raudenbush, 1992; Raudenbush, Bryk, Cheong, & Congdon, 2000), a procedure for examining repeated measurements that do not necessarily occur with uniform frequency or increments across participants. The current analyses used two "levels," in the HLM vernacular, with "Level 1" analyses calculating a distinct regression equation for each participant, and "Level 2" analyses examining whether SES predicted systematic variability in the person-specific intercept and slope parameters calculated at Level 1. SES was represented by two dummy codes. Low SES was designated as the comparison group, given that this group was expected to report more negative and less positive experiences than the other groups and to exhibit the strongest emotional responses to these experiences. All analyses controlled for age. Psychosocial variables were standardized prior to analysis for ease of interpretation. Positive and negative psychosocial experiences were included in analyses simultaneously, so that the association of SES, or resources, with unique, specific psychosocial experiences could be tested. Maximum-likelihood methods were used to obtain the model solutions.

To test Hypotheses 1–3 (i.e., that the association between SES and emotions would be explained, in part, by psychosocial experiences), we performed a series of HLM analyses that examined if (a) SES predicted reports of positive and negative affect (Hypothesis 1), (b) SES predicted exposure to positive and negative psychosocial experiences (Hypothesis 2), and (c) positive and negative psychosocial experiences predicted positive and negative affect (Hypothesis 3). If regression equations for Hypotheses 1–3 demonstrated significant associations, the final step involved (d) regressing positive or negative affect on both SES and positive or negative psychosocial experience(s) simultaneously. (Specific models were determined by the results for Equations 1–3.) The stress exposure perspective was supported if the association between SES and affect was substantially reduced when psychosocial experiences were statistically controlled (i.e., Hypothesis 3; Baron & Kenny, 1986; Kenny, Kashy, & Bolger, 1998; Krull & MacKinnon, 1999). We used the Goodman I version of the Sobel equation (MacKinnon, Warsi, & Dwyer, 1995) to evaluate statistically the evidence for mediation. This equation considers information derived from Equations 1 and 4, as described above, to test whether or not the mediated effect equals zero in the population. A significant Goodman I Sobel test, evaluated according to the Z distribution, provides support for mediation.

Hypothesis 4 posits that SES will moderate the effect of psychosocial experiences on positive and negative affect (i.e., interaction effects). To examine this prediction, a preliminary model was tested that included the main effects of the psychosocial experience variables at Level 1 and the SES dummy codes predicting calculated intercepts (i.e., average reports of positive or negative affect) at Level 2. The interaction terms (i.e., the effect of SES on the slope between psychosocial experiences and affect) were then included in a subsequent analysis. Hypothesis 4, and the tenet of emotional reactivity dependent on SES, would be supported if the interaction effects were statistically significant.

A one-way analysis of variance tested the association between SES and resources (Hypothesis 5). HLM was used to examine whether resources predicted daily experiences (Hypothesis 6) and affect (Hypothesis 7). When initial analyses (i.e., concerning associations between SES and experiences or affect, and between resources and experiences or affect) suggested that mediation was tenable, we examined whether level of resources mediated associations between SES and psychosocial experiences and emotions (Hypothesis 8). Finally, we tested whether levels of resources explained any observed interactive effects between SES and psychosocial experiences in predicting emotional responses (Hypothesis 9)—that is, if individuals with lower SES displayed disproportionate affective responses to psychosocial experiences because they had fewer resources. This hypothesis would be supported if the interaction between SES and a given psychosocial experience on affect were attenuated when the effects of resources (both the main effect of resources and the resources by psychosocial experience interaction effects) were statistically controlled.

Results

Participant Characteristics

On average, women were 41.07 years of age ($SD = 9.18$), and 86.9% ($n = 94$) were White (Black = 11; other = 3). The SES groups did not differ in average age, $F(2, 105) = .15$, $p > .10$, or in self-identified ethnicity, $\chi^2(2, 107) = 7.28$, $p > .10$. Eighty-three percent of the low-status group, 94% of the middle-status group, and 80% of the high-status group were non-Hispanic White.

Does SES Predict Momentary Emotions via Exposure to Daily Psychosocial Experiences?

Preliminary models with no predictors (i.e., "unrestricted" models) were calculated, and the variance estimates for the combined sample showed that a significant amount of interindividual variability existed in all intercept parameter outcome variables, with all chi-square tests significant at $p < .0001$. This suggests the merit of attempting to identify predictors of interindividual differences.

Table 1 shows the results of the HLM analyses that examined Hypotheses 1 and 2, that is, that SES would relate significantly to daily psychosocial experiences and affect. After controlling for age and other psychosocial experiences, SES explained 21% of the interindividual variability in perceptions of control over the environment. Consistent with predictions, the low-SES group reported less control than both the middle- and high-SES groups. SES also predicted 5% of the variance in experiences of social strain. This effect was only marginally significant, but because all contrasts were statistically significant, we further explored the effects of social strain. SES did not predict interindividual variability in reports of environmental demands or in perceptions of social support exchange. SES predicted 11% of the variance in positive

Table 1
Results of the Hierarchical Linear Modeling Analyses Regressing Psychosocial Experiences and Positive and Negative Affect on Socioeconomic Status (SES)

Outcome	β (*SE*)	*t*(105)
Perceived control, $\chi^2(2) = 23.22$, $R^2 = .21$, $p < .01$		
Intercept (low SES)	−0.55 (0.14)	−4.00***
Middle SES	0.63 (0.15)	4.15***
High SES	0.62 (0.15)	4.24***
Environmental demands, $\chi^2(2) = 0.90$, $R^2 = .01$, $p > .10$		
Intercept (low SES)	0.02 (0.10)	0.19
Middle SES	−0.02 (0.12)	−0.15
High SES	0.08 (0.12)	0.66
Social support, $\chi^2(2) = 2.22$, $R^2 = .01$, $p > .10$		
Intercept (low SES)	−0.15 (0.17)	−0.90
Middle SES	0.22 (0.18)	1.24
High SES	0.16 (0.18)	0.89
Social strain, $\chi^2(2) = 5.52$, $R^2 = .05$, $p = .06$		
Intercept (low SES)	0.32 (0.11)	2.80**
Middle SES	−0.35 (0.14)	−2.48*
High SES	−0.29 (0.14)	−2.10*
Negative affect, $\chi^2(2) = 0.37$, $R^2 = .00$, $p > .01$		
Intercept (low SES)	0.07 (0.11)	0.66
Middle SES	−0.08 (0.15)	−0.54
High SES	−0.02 (0.14)	−0.12
Positive affect, $\chi^2(2) = 10.21$, $R^2 = .11$, $p < .01$		
Intercept (low SES)	−0.25 (0.11)	−2.25*
Middle SES	0.26 (0.13)	2.03*
High SES	0.42 (0.14)	3.06**

Note. All psychosocial experience scores were standardized prior to analyses. Analyses concerning psychosocial experiences (control, demands, support, strain) controlled for all other psychosocial experiences, centered about the person mean, so that each outcome represents the average psychosocial experience score for an individual, calculated at their average score for all other psychosocial experiences. Chi-square tests examined the improvement in fit when SES was added to the model. R^2 shows the percent of interindividual variability accounted for by the SES variables. The low-SES group is the referent group, so that the *t* test for the intercept coefficient examined whether the mean outcome for the low-SES group differed from 0 (i.e., the mean of the entire sample). Coefficients for the middle- and high-SES group show the difference in that group's mean outcome when compared with the mean for the low-SES group.
* $p < .05$. ** $p < .01$. *** $p < .001$.

affect, with the low-SES group reporting less positive affect than either the middle- or high-SES group. SES did not predict variability between individuals in negative affect. Additional analyses showed that both social strain ($\gamma = -0.29$, $SE = 0.03$), $t(107) = 10.00$, $p < .001$, and control ($\gamma = 0.24$, $SE = 0.03$), $t(107) = 8.58$, $p < .001$, significantly predicted momentary changes in positive affect. These results suggest that SES could influence positive affect by shaping psychosocial experiences, particularly perceived control and social strain, and they provide partial support for both Hypotheses 1 and 2.

Two analyses were then performed that regressed positive affect on SES and perceived control, or SES and social strain, simultaneously, to test for mediation (i.e., Hypothesis 3). As shown in Table 2, control significantly predicted positive affect when the SES contrasts were in the model, whereas the SES contrasts were no longer statistically significant. Furthermore, the Sobel equation provides statistical support that, at least in part, control contributes to the association between SES and positive affect. Similarly, in the model controlling for social strain, strain predicted positive affect, and all three SES coefficients were attenuated to varying degrees. The Sobel equation suggests that social strain contributed to the association between SES and positive affect, although strain experiences appeared to play a less important explanatory role than perceived control. Statistical control for social strain reduced the percent of interindividual variance in positive affect accounted for by SES by 35%, whereas inclusion of control reduced the variance accounted for by 50%. In aggregate, these results provide partial support for Hypotheses 1–3, showing that SES predicts positive but not negative emotions in daily life, SES relates to momentary experiences of control and strain but not environmental demands or social support, and that the link between SES and positive affect can be explained, in part, by exposure to strain and control.

Finally, we performed secondary analyses to determine whether the effects of SES on psychosocial experiences and affect were confined exclusively to the work environment. These analyses included a dummy code for recordings that were made while at work (coded as 0; 59% of readings) versus elsewhere (coded as 1) and examined whether the interaction between SES and location predicted psychosocial experiences after accounting for age and the main effects of location and SES. The interactions of SES and location contributed marginally significantly to model fit for positive affect, $\chi^2(2) = 5.18$, $p < .10$, and did not contribute to model fit for negative affect or for any of the psychosocial experiences variables (all *p*s $> .10$). Hence, these analyses suggest that differences in daily experiences due to SES are not confined exclusively to the work environment.

Table 2
Results of the Hierarchical Linear Modeling Analyses Regressing Socioeconomic Status (SES) on Positive Affect While Adjusting for Perceived Control and Social Strain

Outcome	β (*SE*)	*t*	Goodman I Sobel test
Positive affect, $\chi^2(2) = 5.04$, $R^2 = .05$, $p < .10$			
Perceived control	0.24 (0.03)	8.91***[a]	
Intercept (low SES)	−0.12 (0.12)	−0.95[b]	3.36***
Middle SES	0.09 (0.13)	0.69	3.60***
High SES	0.26 (0.14)	1.80†[b]	3.56***
Positive affect, $\chi^2(2) = 4.14$, $R^2 = .07$, $p > .10$			
Social strain	0.27 (0.03)	−9.49***[a]	
Intercept (low SES)	−0.14 (0.11)	−1.25[b]	2.83**
Middle SES	0.16 (0.13)	1.31[b]	2.46*
High SES	0.27 (0.14)	1.97*[b]	2.14*

Note. Positive affect is standardized. Control and strain are centered about the sample mean prior to entry, so that analyses adjust for both within- and between-persons exposure to control and strain. All analyses controlled for age. Chi-square tests examined the improvement in fit when SES was added to the model that includes the possible mediator. R^2 shows the percent of interindividual variability accounted for by the SES variables.
[a] $df = 107$. [b] $df = 104$.
† $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Does SES Moderate Emotional Responses to Psychosocial Experiences?

All preliminary models containing the psychosocial experience variables demands, perceived control, social support, or social strain at Level 1 and the SES contrasts predicting the intercept parameters at Level 2 indicated that a significant amount of interindividual variability existed in slope parameter outcome variables (i.e., associations between psychosocial experiences and affect), with all chi-square tests significant at $p < .0001$. This suggests that further predictors can be explored.

After controlling for age, the main effects of SES, and the main effects of psychosocial experiences, the addition of the SES × Psychosocial Experience interactions did not contribute significantly to model fit for negative affect, $\chi^2(8) = 10.51$, $p > .10$. Further, none of the SES × Experience contrasts was statistically significant (all ps $> .10$). In aggregate, addition of the SES × Psychosocial Experiences interactions resulted in a marginally statistically significant improvement in model fit for positive affect, $\chi^2(8) = 15.01$, $p = .06$. Because a number of individual contrasts were statistically significant, and because it was felt that the power for this analysis might have been a limiting factor given the number of estimated parameters and the sample size, these interactions were further explored. Significant interaction effects emerged for environmental demands and social support. The effect size for demands was quite small (3% of the interindividual variance in the Demands × Positive Affect interaction explained), and the high- versus low-SES contrast was statistically significant ($\gamma = -0.15$, $SE = 0.07$), $t(107) = -2.09$, $p < .05$, whereas the medium- versus low-SES contrast was not ($\gamma = -0.11$, $SE = 0.07$), $t(107) = -1.59$, $p > .05$. In contrast, the interaction effects explained 16% of the interindividual variance in the association between support and positive affect. The middle- versus low-SES contrast was significant ($\gamma = -0.14$, $SE = 0.05$), $t(107) = -2.64$, $p < .01$, whereas the high- versus low-SES contrast was not ($\gamma = -0.06$, $SE = 0.05$), $t(107) = -1.10$. Neither SES and social strain nor SES and control interacted to predict positive affect (all ps $> .05$). The SES × Demands and SES × Support interaction effects for positive affect are displayed in Figure 2. As shown, contrary to predictions, the low-SES group showed an increase in positive affect in response to increasing demands, whereas the high-SES group showed very little change, and the middle-SES group showed a smaller increase in positive affect. The low-SES group showed a significantly greater increase in positive affect in response to social support exchange when compared with the middle-SES group, but their responses did not differ from those of the high-SES group. Hence, Hypothesis 4, that is, that low SES would be associated with stronger emotional responses to psychosocial experiences, received support in relation to stronger reactivity of positive emotions in response to increasing support and, unexpectedly, in reaction to higher demands.

What Are the Roles of Resources in the Associations Among SES, Daily Emotions, and Psychosocial Experiences?

A one-way analysis of variance was used to test Hypothesis 5, that lower SES would predict lower levels of resources. As expected, the groups differed significantly, $F(2, 103) = 4.29$, $p < .05$. Specifically, the high-SES group reported the most resources ($M = 1.16$, $SD = 3.47$), followed by the medium-SES group ($M = -0.48$, $SD = 3.45$), and the low-SES group ($M = -1.49$, $SD = 3.25$). Directional follow-up comparisons showed that the high-SES group differed significantly from the medium- and low-SES groups ($p < .05$), but the low- and medium-SES groups did not differ significantly.

Next, we examined whether resources represented a main effect predictor of daily psychosocial and emotional experiences, that is, Hypotheses 6 and 7. As shown in Table 3, aggregate resources were strongly predictive of psychosocial experiences and affect, adding significantly to model fit for control (17% of the interindividual variance), social strain (10% of the variance), and both positive (21% of the variance) and negative (4% of the variance) affect. Resources did not add significantly to model fit for social support or environmental demands.

These findings, in combination with the analyses concerning SES and daily experiences, suggest that resources might contribute to associations between SES and perceived control and SES and positive affect (i.e., Hypothesis 8). Therefore, the next analyses regressed perceived control, social strain, and positive affect on both SES and resources simultaneously to see whether the effects of SES were attenuated. As shown in Table 4, SES remained a statistically significant predictor of control and positive affect after controlling for resources, and resources also predicted these outcomes. However, the effect of SES on social strain was attenuated. The results of the Goodman I Sobel test show that resources did in part mediate the difference between the low- and high-SES groups in daily perceptions of control and positive affect, although the contrast remained statistically significant in both cases. In addition, resources contributed significantly to the difference between the low- and high-SES groups' reports of social strain. In no case did reserve capacity resources explain the difference between the low- and middle-SES groups, which is not surprising given that these groups did not differ on the resources variable. Hypothesis 8 therefore received partial support, although there is clearly a residual effect of SES on daily experiences that is independent of resources.

The final analysis tested whether or not differences in reserve capacity resources explained the interactive effects of SES and demands and SES and social support on momentary positive affect (Hypothesis 9). To examine this hypothesis, we examined the degree to which these interaction effects were attenuated when the effects of resources on the associations between demands and positive affect and support and positive affect were controlled for statistically. Thus, these analyses included main effects of resources and SES on average levels of positive affect, as well as effects for interactions between SES with demands and support, and resources with demands and support, in predicting positive affect. The addition of the Resources × Demands and Resources × Support interaction effects did not contribute significantly to model fit in predicting positive affect after controlling for age and the other terms in the model, $\chi^2(2) = 0.87$, $p > .10$. Further, the individual parameter tests for the effects of Resources × Demands and Resources × Support on positive affect were not significant ($p > .10$), and the SES × Demands and SES × Support interaction effects were not substantively altered when compared with analyses that did not contain these terms. Thus, the differential emotional responses to support and demands observed in individuals with low SES could not be explained by

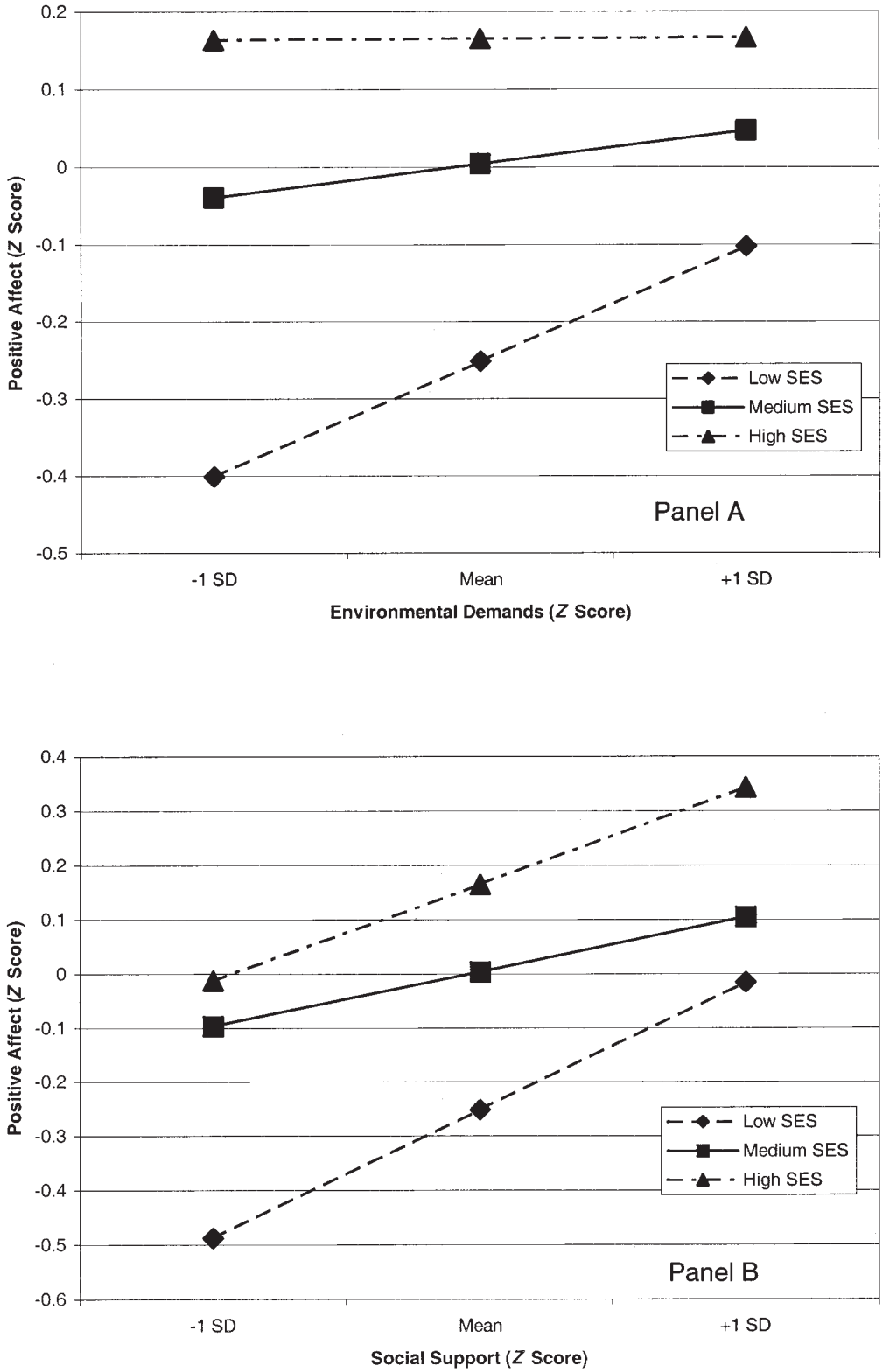

Figure 2. Panel A shows the interaction between socioeconomic status (SES) and environmental demands in predicting positive affect. For illustrative purposes, environmental demands are shown at the sample mean and at 1 standard deviation (SD) above and below the mean. Panel B displays the interaction between SES and social support in predicting positive affect. For illustrative purposes, social support is shown at the sample mean and at 1 standard deviation above and below the mean.

Table 3
Results of the Hierarchical Linear Modeling Analyses Regressing Psychosocial Experiences and Affect on the Reserve Capacity Resources Scale

Outcome	β (*SE*)	*t*(103)
Perceived control, $\chi^2(1) = 19.36$, $R^2 = .17$, $p < .001$		
Intercept (average resources)	−0.01 (0.05)	−0.21
Resources	0.23 (0.04)	5.24***
Environmental demands, $\chi^2(1) = 1.29$, $R^2 = .02$, $p > .10$		
Intercept (average resources)	0.03 (0.05)	0.69
Resources	−0.06 (0.05)	−1.25
Social support, $\chi^2(1) = 1.44$, $R^2 = .02$, $p > .10$		
Intercept (average resources)	−0.00 (0.06)	−0.03
Resources	0.07 (0.05)	1.44
Social strain, $\chi^2(1) = 10.99$, $R^2 = .10$, $p < .001$		
Intercept (average resources)	0.03 (0.05)	0.60
Resources	−0.17 (0.04)	−4.31***
Negative affect, $\chi^2(1) = 3.78$, $R^2 = .04$, $p < .05$		
Intercept (average resources)	0.03 (0.06)	0.58
Resources	−0.11 (0.05)	−2.20*
Positive affect, $\chi^2(1) = 22.82$, $R^2 = .21$, $p < .0001$		
Intercept (average resources)	0.02 (0.04)	0.41
Resources	0.21 (0.05)	4.47***

Note. All psychosocial experience scores, and the Composite Resource Scale, were standardized prior to analyses. Analyses concerning psychosocial experiences (control, demands, support, strain) controlled for all other psychosocial experiences, centered about the person mean, so that each outcome represents the average psychosocial experience score for an individual, calculated at their average score for all other psychosocial experiences. All analyses controlled for age of participant (centered around the sample mean prior to entry). Chi-square tests examined the improvement in fit when resources were added to the model. R^2 shows the percent of interindividual variability accounted for by resources.
* $p < .05$. *** $p < .001$.

discrepancies in available psychosocial resources, and therefore, Hypothesis 9 was not supported.

Discussion

The reserve capacity model (Gallo & Matthews, 2003) applies tenets of resource models of stress (Brown & Moran, 1997; Hobfoll, 1989, 2001; Holahan et al., 1999) and aging (Stern, Gurland, Tatemichi, & Tang, 1994) to formulate a framework for understanding the associations among SES, personal and social resources, psychosocial and emotional experiences, and health. The current study tested several tenets of this model in a sample of middle-aged women with varied SES. Contrary to most prior research concerning these constructs, which has typically relied on aggregate, retrospective, self-report measures, we used EMA to examine psychosocial experiences in everyday life. Figure 3 displays the pathways tested in the current study and indicates the extent to which they received support. As shown, the pattern of findings was not entirely confirmatory, suggesting important areas for further research.

SES, Psychosocial Experiences, and Momentary Emotions

The current study found partial support for the notion that lower SES environments are associated with greater stress exposure and fewer positive experiences in everyday life, affecting daily affect. Women with lower SES reported less perceived control and more social strain (Figure 3, Pathway A), and less positive emotion (Figure 3, Pathway J) when compared with their higher SES counterparts. Furthermore, social strain and perceived control helped to explain the association between SES and positive emotions (Figure 3, Pathways A and B). Notably, the association between SES and positive affect appeared to be linear, whereas the effect for control and strain was nonlinear; that is, the middle- and high-SES groups reported similar levels of control and strain. This suggests that emotions could have a more salient role than daily psychosocial experiences when considering health differences farther up the socioeconomic hierarchy.

SES did not relate to perceived environmental demands, negative affect, or social support. These null effects were not a consequence of range restriction—social support was normally distributed, and demands and affect were only slightly positively skewed (skew statistic <.50). The divergent effects for positive and negative emotions suggest that research concerning socioeconomic health disparities would benefit from concurrent consideration of distinct measures of these constructs, consistent with the view that positive and negative affect form orthogonal dimensions (Watson & Clark, 1997). The lack of association between SES and negative emotions is notable, given the strong inverse association observed in studies that have examined self-report measures of depression, anxiety, and anger or interview assessments of emotional disorders (for a review, see Gallo & Matthews, 2003). However, our results are consistent with a previous study that applied EMA technology and also found no association between SES and negative affect (Matthews et al., 2000). Thus, the association between SES and negative emotions could be confined to more enduring, global symptoms or individual differences rather than to momentary affective experiences. Furthermore, retrospective biases or other errors in measurement may influence reports of affect by individuals with low SES when other methodologies are used (Bradburn et al., 1987; Stone et al., 1998; C. P. Thompson et al., 1996).

We conceptualized momentary perceived demands as negative or "stress" experiences, which would presumably be inversely related to SES. On the other hand, prior epidemiological studies have shown that individuals with higher SES reported greater work-related demands on self-report measures when compared with those with lower SES (Gallo et al., 2003; Kristensen, Borg, & Hannerz, 2002; Marmot, Bosma, Hemingway, Brunner, & Stansfeld, 1997). Perhaps to some extent, demands reflect engagement or challenge in one's daily activities. In particular, job demands that match one's abilities and work context could foster personal growth and self-efficacy, leading to positive physical and mental health outcomes (for a discussion, see de Jonge, Dollard, Dormann, Le Blanc, & Houtman, 2000). Hence, in future research, it may be useful to disaggregate types of job demands, their impact, and the degree to which they match available skills and are mitigated by corresponding types of control.

Finally, that SES did not predict ratings of social support in everyday social interactions is contrary to considerable prior research concerning self-report assessments of available support (Bosma, van de Mheen, & Mackenbach, 1999; Matthews, Kelsey,

Table 4
Results of the Hierarchical Linear Modeling Analyses Regressing Socioeconomic Status (SES) on Psychosocial Experiences and Affect While Adjusting for Aggregate Reserve Capacity Resources

Outcome	β (SE)	$t(102)$	Goodman I Sobel test
Perceived control, $\chi^2(2) = 16.65$, $R^2 = .17$, $p < .001$			
Resources	0.20 (0.05)	4.43***	
Intercept (low SES)	−0.44 (0.16)	−2.80**	−0.71
Middle SES	0.54 (0.16)	3.30**	0.89
High SES	0.46 (0.16)	2.78*	2.09*
Social strain, $\chi^2(2) = 3.17$, $R^2 = .03$, $p > .1$			
Resources	−0.18 (0.04)	−4.17***	
Intercept (low SES)	0.18 (0.11)	1.60	1.49
Middle SES	−0.23 (0.13)	−1.75†	0.63
High SES	−0.09 (0.14)	−0.63	−2.07*
Positive affect, $\chi^2(2) = 7.46$, $R^2 = .08$, $p < .05$			
Resources	0.18 (0.04)	4.14***	
Intercept (low SES)	−0.24 (0.11)	−2.14*	0.71
Middle SES	0.27 (0.12)	2.19*	0.91
High SES	0.35 (0.14)	2.55*	2.11*

Note. All psychosocial experience scores and the composite resource scale were standardized prior to analyses. Analyses concerning psychosocial eperiences (control, demands, support, strain) control for all other psychosocial experiences, centered about the person-mean, so that each outcome represents the average psychosocial experience score for an individual, calculated at their average score for all other psychosocial experiences. All analyses control for age of participant (centered around the sample mean prior to entry). Chi-square tests examined the improvement in model fit when SES is added to the equation, after adjustment for resources. R^2 shows the percent of interindividual variability in the outcome accounted for by addition of the SES variables. † $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Meilahn, Kuller, & Wing, 1989; Ranchor, Bouma, & Sanderman, 1996). Note that the current study examined support transactions (i.e., whether or not the participant gave or received support and whether the interaction was intimate in nature), whereas many self-report measures focus on generalized perceptions that support would be available if required or on social network characteristics. Prior research has likewise shown that the association between SES and social support differs according to the specific conceptualization of support used (e.g., Krause & Borawski-Clark, 1995; Mickelson & Kubzansky, 2003).

In aggregate, the findings concerning the stress exposure perspective suggest that daily experiences of low control and high social conflict may be primary factors fostering and maintaining low daily levels of positive emotion in people with low SES. Indeed, a large body of research shows that feelings of control are extremely important for well-being (Peterson, 1999; S. C. Thompson, 2002), and personal control differentials are thought to play a key role in the relationship between SES and depression (Link et al., 1993; Turner et al., 1999). This study supplements the considerable prior research that has examined these associations using retrospective self-report methods (Gallo & Matthews, 2003). Prior research that has used both EMA (Matthews et al., 2000) and survey methodology (Schuster, Kessler, & Aseltine, 1990) also supports the contention that people with low SES are especially vulnerable to social conflict. Hence, interpersonal processes may represent another important link between SES and health (T. W.

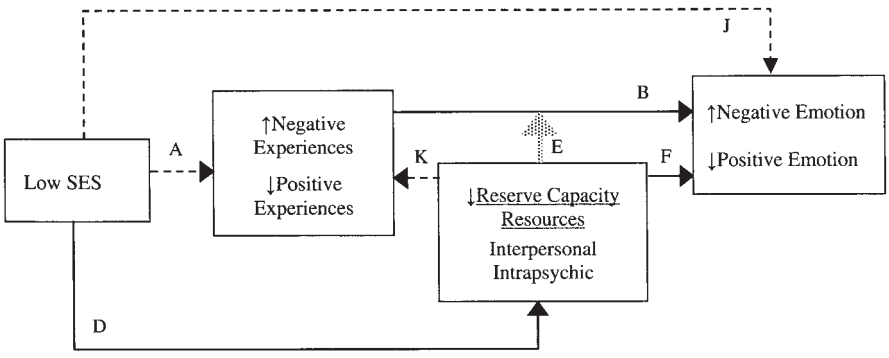

Figure 3. Pathways tested in the current study that received support (solid lines), partial support (dashed lines), or no support (gray-patterned line).

Smith, Gallo, & Ruiz, 2003). Like control, social strain is closely related to emotional adjustment and may have even greater implications for emotional well-being than positive aspects of relationships (Fuhrer, Stansfeld, Chemali, & Shipley, 1999; Rook, 1984). A further focus on negative social interactions in the association between SES and emotional health is warranted, particularly because only minimal research has addressed this issue to date (Taylor & Seeman, 1999).

SES and Emotional Reactivity to Psychosocial Experiences

Very limited support was obtained in analyses examining the hypothesis that SES would moderate momentary emotional responses to psychosocial experiences and that this moderation could be explained by a resource deficit (Figure 3, Pathway E). No reactivity effects emerged in predicting negative affect. It is important to note that prior research concerning the "reactivity" perspective has also revealed a mixed pattern of findings (for a discussion, see Stronks, van de Mheen, Looman, & Mackenbach, 1998). The current study adds to the literature by suggesting that negative affect reactivity may not emerge in relation to daily experiences, although further research with larger sample sizes and examining more diverse daily contexts could reveal different results.

The current study did identify a trend toward moderation of positive emotional responses to daily experiences by SES. Contrary to predictions, women with low SES typically reported greater positive affect with increasing demands, whereas those within the higher SES group reported lesser positive affect. This pattern might be reconciled in light of results from the study by Matthews et al. (2000), which showed that people with low-SES occupations report frequent feelings of boredom. Greater demands could cultivate feelings of engagement, interest, or happiness in low-SES individuals. Women with low SES also tended to experience a greater increase in positive affect in response to social support exchanges when compared with women within the middle-SES group. As shown in prior research (Turner & Noh, 1983), social support could be especially important to emotional well being within highly stressful low-SES contexts, consistent with the stress-buffering model (Cohen, Gottlieb, & Underwood, 2001). Hence, assuming that environmental demands were construed positively by individuals with relatively low SES, these findings suggest a possible broadening of the "stress" reactivity perspective—that is, lower SES may augment positive emotional responses to pleasant psychosocial experiences. Perhaps this reflects the relative rarity, and therefore salience, of positive experience in the daily lives of individuals with low SES. Further research is needed to examine the robustness of these results.

The consistent findings related to positive affect in the current study deserve additional comment. Positive emotions have been understudied in psychological research to date (Seligman & Csikszentmihalyi, 2000), but emergent research has suggested that they have important implications for health, well-being, and stress responses beyond the effects of negative emotions (Cohen, Doyle, Turner, Alper, & Skoner, 2003; Folkman & Moskowitz, 2000; Fredrickson, Tugade, Waugh, & Larkin, 2003; Moskowitz, 2003). Furthermore, the "broaden-and-build" theory proposed by Fredrickson (2001) suggests that positive emotions foster stress resiliency by increasing personal resources. This hypothesized association is depicted in the reserve capacity model (Figure 1, Arrow H). Positive emotions deserve greater attention in the efforts to understand the relationships among SES, stress, resources, and health outcomes.

The Effects of Resources

A primary component of the reserve capacity model is the application of resource models (Hobfoll & Johnson, 2003; Stern, 2002; Turner et al., 1999) to help understand the associations among SES, stress, and emotions. Consistent with the tenets of these models, women with lower SES reported fewer social and personal resilient resources (Figure 4, Pathway D). Furthermore, women with more resources reported higher daily perceptions of control and lower social strain (Figure 4, Pathway K) and higher positive as well as lower negative affect (Figure 4, Pathway F). Inasmuch as experiences of control and avoidance of social strain may augment or maintain the aggregate resource bank, these findings are consistent with conservation of resources theory, which suggests that individuals with lower resource stores are likely to experience further losses in the future (Hobfoll, 2001), and with aging models suggesting that resource decrements result in erosion of the capacity to protect against age-related changes in function (Stern, 2002). In part, available social and personal resources accounted for associations between SES and affect and SES and daily psychosocial experiences.[2] However, SES showed an independent association with daily experiences. Studies applying retrospective self-report approaches have shown a larger role for resources, suggesting that they might be more important in the context of enduring affective states or disorders (Bailis et al., 2001; Turner et al., 1999). Furthermore, resources may be most relevant to well-being in individuals experiencing acute phases of economic deficiency as opposed to chronic low-SES circumstances (Ennis et al., 2000). In aggregate, the findings suggest that lower SES could result in compounded risk for deleterious emotional outcomes, given the direct, negative influence on daily psychosocial and emotional experiences, and also the indirect effects, through limited resources. Resources clearly relate to daily experiences, but the current results do not support the contention that they interact with the other constructs in the reserve capacity model, as shown in Figure 1. Although power may have been a limiting factor in these analyses, the null findings suggest that the reactivity component of the reserve capacity model, proposed to be mediated by resources, should be viewed tentatively.

[2] An alternative explanation for the link between the resource measure and reports of daily psychosocial experiences is that both contain common item content. For example, if the social conflict component of the resources variable were primarily responsible for predicting reports of social strain in the natural environment, this would indicate that our findings only demonstrate convergent validity in alternative forms of measurement. To address this possibility, we performed exploratory analyses in which each component of the aggregate resource variable was examined as a separate predictor of daily reports of perceived control and social strain. All components of the resource scale significantly predicted control perceptions, and all scales except optimism significantly predicted reports of social strain (all $ps < .05$). Therefore, resources appear to exert a common influence, consistent with prior research concerning their strong continuity and interrelationships (Hobfoll, 2002; Rini et al., 1999).

Limitations

Limitations of the current research should be noted, mainly in relation to the sample composition. The number of participants was small, particularly for the low-SES group, which is in some respects the most important group in the current study. The fact that theoretically consistent significant findings were identified despite the sample size suggests that power was generally sufficient. However, the small sample size may have impeded evaluation of some hypotheses. Furthermore, because of the sample size, we elected not to adopt a more stringent alpha coefficient to protect against Type I error. Thus, the interpretation of the results should be considered in light of the number of analyses. It should also be noted that the sample was fairly ethnically homogeneous, consistent with the population from which it was drawn. Care should be taken in generalizing the findings to more diverse or urban populations. Because we used a volunteer recruitment strategy, we may also have obtained a relatively well-adjusted group. Full-time employment was a requirement of participation in the current research, resulting in a blunted range of examined SES. In some cases, associations may have been attenuated because of this range restriction. Furthermore, only women with work environments permitting frequent pauses for measurements and diary entries were able to participate. As a result, our low-SES group was made up of women with service positions rather than low-status occupations requiring substantial physical activity (e.g., manufacturing).

A strength of the current research is the use of EMA methodology, which avoids biases associated with single, aggregate assessments of the variables of interest. On the other hand, as already noted, the difference between our study and preceding tests of associations among SES, life experiences, resources, and emotions should be emphasized.

Conclusions

Using EMA, we found that women with low SES experience lower perceptions of control and positive affect and tend to encounter more frequent social strain in their daily lives when compared with their higher SES counterparts, and that control and strain contributed to the association between SES and positive affect. Stress-resilient resources also contributed to daily psychosocial and emotional experiences. Women with lower SES reported fewer stress-resilient resources, suggesting that they may suffer an additive disadvantage. The results suggest that a continued focus on intrapsychic and social resources and daily experiences is warranted in efforts to understand and intervene in SES-related differences in emotional well-being and physical health.

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