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The Socioemotional Costs and Benefits of Social-Evaluative Concerns: Do Girls Care Too Much?

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Abstract

This research investigated the hypothesis that girls' heightened concerns about social evaluation contribute to sex differences in depression and interpersonal competence during early adolescence. A short-term longitudinal study was conducted with 474 adolescents to examine the consequences of heightened social-evaluative concerns. Adolescents reported on their levels of social-evaluative concerns and depressive symptoms. Teachers provided ratings of adolescents' competence with peers (displays of prosocial and aggressive behavior). As anticipated, girls demonstrated higher levels of social-evaluative concerns, depressive symptoms, and interpersonal competence than did boys. Moreover, path analysis confirmed that heightened social-evaluative concerns were associated both concurrently and over time with higher levels of depression, as well as with higher levels of interpersonal competence. Notably, social-evaluative concerns accounted fully for the sex difference in depression and partially for the sex difference in interpersonal competence. These findings highlight the need to consider both the socioemotional costs and benefits of sex-linked relational orientations.

Research drawing from multiple theoretical perspectives reveals consistent sex differences in an aspect of personality reflecting one's orientation toward relationships. A common theme that emerges across this research is that females place a greater emphasis on the maintenance of harmonious relationships and demonstrate more concern about social evaluation than do males (Cross & Madson, 1997; Maccoby, 1990). Historically, there has been a tendency to view females' relational orientation style primarily as a liability, which contributes to heightened levels of emotional distress such as depression (Gore, Aseltine, & Colten, 1993; Nolen-Hoeksema & Girgus, 1994). Depression, in turn, frequently is associated with disruptions in relationships (Gotlib & Hammen, 1992; Rudolph, Hammen, & Daley, in press). However, this view runs contrary to evidence that females seek and receive more emotional benefits and support from their relationships than do males (Furman & Buhrmester, 1985; Kurdek, 1987; Miller & Kirsch, 1987; Rose & Asher, 2001). To reconcile this apparent paradox, the present research examined the proposal that one aspect of sex-linked relational orientation, a tendency toward social-evaluative concerns, may confer emotional costs but social benefits. In particular, it was hypothesized that heightened concerns about peer evaluation would increase risk for depression, but also would enhance interpersonal competence. These concerns were expected to explain why adolescent girls often are more depressed but more interpersonally competent than are adolescent boys.

Sex Differences in Social-Evaluative Concerns

Several lines of theory and research suggest that relationships are more central to females' than males' sense of self (for reviews, see Cross & Madson, 1997; Helgeson, 1994;

Maccoby, 1990). This psychological investment in relationships as a source of self-definition has been proposed, in turn, to drive a variety of personality attributes. On the one hand, an investment in relationships may foster concern about the welfare of significant others, leading to attributes that traditionally are viewed as adaptive, such as empathy and a communal goal orientation (Cross & Madson, 1997). On the other hand, an investment in relationships may contribute to attributes that traditionally are viewed as maladaptive, such as excessive concern about the judgments of others and dependence on success in relationships for psychological well-being (Blatt, Zohar, Quinlan, Zuroff, & Mongrain, 1995; Cross & Madson, 1997).

Research supports sex differences in several personality attributes linked to a heightened psychological investment in relationships. For instance, females and males differ in their goal orientation within relationships. Whereas females focus more on communal goals, which emphasize relationship-enhancement and cooperation, males focus more on agentic goals, which emphasize dominance, self-interest, and competition (Buhrmester, 1996; Saragovi, Aube, Koestner, & Zuroff, 2002; for reviews, see Helgeson, 1994; Maccoby, 1990). Females also experience more worry and distress about significant others than do males (Gore et al., 1993). Moreover, research suggests that females are more likely than males to worry about the judgments of peers (La Greca, Dandes, Wick, Shaw, & Stone, 1988; La Greca & Lopez, 1998) and to show high levels of dependency (i.e., an extreme desire for closeness with others; apprehension about separation, rejection, and abandonment; Leadbeater, Blatt, & Quinlan, 1995; Leadbeater, Kuperminc, Blatt, & Hertzog, 1999).

These related lines of theory and research provide support for differences in females' and males' investment in relationships as reflected in a variety of psychological attributes. The present study focused on one of these attributes, namely concerns about evaluation by peers. Social-evaluative concerns were examined during early adolescence, a developmental stage marked by self-reflection and the intensification of sex-linked personality styles (Hill & Lynch, 1983; Nolen-Hoeksema & Girgus, 1994). Because of the salience of peer relationships during early adolescence, particularly for girls (Furman & Buhrmester, 1985; Rudolph, 2002), we anticipated that this developmental focus on the self, combined with gender-intensification processes during this stage, would foster especially high levels of concerns about peer evaluation in adolescent girls compared to boys.

Socioemotional Costs and Benefits of Social-Evaluative Concerns

Central to the present research was the paradoxical proposal that possessing high levels of social-evaluative concerns represents both an asset and a liability. On the one hand, individuals with heightened social-evaluative concerns may be more vulnerable to emotional difficulties such as depression. On the other hand, individuals with heightened social-evaluative concerns may be motivated to engage in behaviors that protect their relationships from harm. The hypothesis that social-evaluative concerns will have socioemotional tradeoffs is consistent with emerging theory and research that demonstrates the costs and benefits of a variety of personality attributes (Cooper, Shaver, & Collins, 1998; Helgeson, 1994; Higgins, 1991; Pomerantz, Saxon, & Oishi, 2000).

Several theories consider the emotional "cost of caring" (Kessler & McLeod, 1984) stemming from females' investment in relationships. For example, it has been suggested that females' vulnerability to psychological distress may stem from the personality trait of unmitigated communion, characterized by a focus on relationships and connections with others to the exclusion of the self (Fritz & Helgeson, 1998; Helgeson, 1994; Saragovi et al., 2002). Similarly, investigators studying stress and social support have suggested that females are exposed to more stress from negative events occurring to others within their

social networks, presumably due to their stronger interpersonal connections (Cooper, Frone, Russell, & Pierce, 1997; Gore et al., 1993; Kessler & McLeod, 1984; Wagner & Compas, 1990), and this stress may create a vulnerability to depression (Gore et al., 1993; Kessler & McLeod, 1984). Individuals with a heightened investment in relationships also may have more difficulty coping with stress and associated negative emotional arousal. These difficulties may be particularly salient when this investment is embodied in concerns about gaining approval from others. For instance, it has been suggested that individuals with an anxious attachment style — who value interpersonal connections and desire approval from others, yet worry about rejection and abandonment — have fewer psychological resources for regulating negative emotions (Cooper et al., 1998). Moreover, individuals who possess heightened social-evaluative concerns may hold high standards for their success in relationships, leading to a negative self-concept and disappointment or shame if they determine that they fall short of their standards. Failure to regulate these negative cognitions and emotional states may set the stage for depression.

Consistent with these proposed costs, several personality attributes associated with an investment in relationships are linked to negative emotions. For instance, dependency in close relationships, unmitigated communion, and an interpersonal caring orientation (i.e., worries about significant others) have been linked to negative affect and depression (Blatt, Schaffer, Bers, & Quinlan, 1992; Blatt et al., 1995; Fritz & Helgeson, 1998; Gore et al., 1993; Leadbeater et al., 1999; Zuroff, Stotland, Sweetman, Craig, & Koestner, 1995). Similarly, individuals with an anxious attachment style (Cooper et al., 1998) and those who rely on others for self-esteem (Fritz & Helgeson, 1998) show higher levels of psychological distress in the form of anxiety and depression.

Although possessing heightened social-evaluative concerns may have *personal* costs, reflected in higher levels of depression, this attribute also may have *interpersonal* benefits. Specifically, heightened social-evaluative concerns may motivate individuals to be particularly attuned to their interpersonal environments, to engage in behaviors that promote harmonious relationships, and to refrain from behaviors that jeopardize relationships (Cross & Madson, 1997; Leary, Tambor, Terdal, & Downs, 1995). For example, a child who values approval from peers may be very cooperative and helpful in order to facilitate the formation of friendships, whereas a child who is less invested in obtaining approval from peers may act in a hostile or aggressive manner designed to meet self-interest goals.

Indeed, several lines of research provide a basis for predicting positive interpersonal consequences stemming from females' investment in relationships, more generally, and social-evaluative concerns, more specifically. First, this perspective is consistent with theories of self-regulation, which predict that a discrepancy between standards for success and perceptions of actual success will promote efforts to bring these two into alignment (Higgins, 1991). If girls are invested in maintaining positive peer relationships, yet are concerned about the status of their relationships, they will be motivated to engage in discrepancy-reducing behaviors that would bolster their relationships. Second, it has been suggested that worry can serve adaptive regulatory functions such as promoting constructive problem solving and task-oriented behavior (Davey, 1994). Thus, the worry associated with possessing heightened concerns about social evaluation may foster more adaptive interpersonal behavior. Third, because adolescent girls are more sensitive than boys to the potential costs of relationship conflict, they may be more motivated to resolve problems effectively (Laursen, 1996). In this way, girls may be able to “harness” (Norem & Cantor, 1986) their evaluative concerns to serve a motivating function.

In support of these proposed interpersonal benefits of social-evaluative concerns, research reveals positive consequences of several related attributes. A high investment in

relationships, as reflected in communal goals and interdependent self-construals, is linked to positive relationship behavior and outcomes, whereas a low investment in relationships, as reflected in agentic goals, is linked to antisocial behavior, such as aggression and delinquency (for reviews, see Cross & Madson, 1997; Helgeson, 1994). Moreover, individuals with anxious attachment styles, who are concerned about the status of their relationships, are more socially competent than those with avoidant attachment styles, who often deny an investment in relationships (Cooper et al., 1998). Similarly, research suggests that interpersonal dependency, particularly an aspect of dependency associated with a vulnerability to loneliness in response to disruptions in relationships, is linked to a motivation to maintain close relationships, intimacy in social interactions, better adjustment in dyadic relationships, and inhibitions about expressing hostile behavior (Blatt et al., 1995; Saragovi et al., 2002; Zuroff, Moskowitz, & Cote, 1999; Zuroff et al., 1999; Zuroff et al., 1995). Heightened social-evaluative concerns may therefore promote prosocial behavior and inhibit behaviors that might jeopardize relationships, such as aggression. In contrast, a lack of concern about social evaluation may decrease motivation to maintain relationships and provoke aggression.

These positive effects of social-evaluative concerns would be consistent with research showing that females engage in higher levels of prosocial and cooperative behavior and lower levels of overt aggression than do males (Cross & Madson, 1997; Maccoby, 1990). This perspective also helps to explain why, despite females' concerns and distress within peer relationships and their increased exposure to stress in their social networks, they develop friendships that are characterized by higher levels of closeness, support, and affection than those of males (Belle, 1989; Bukowski, Hoza, & Boivin, 1994; Furman & Buhrmester, 1985). If girls are particularly attuned to the judgments of their peers, even if this sensitivity is manifested in part as worries about evaluation, girls are more likely than boys to create mutually reinforcing relationships.

Overview of the Present Research

Theory and research therefore provide a strong foundation for the three central hypotheses of the present study. We expected that: (1) Girls would possess higher levels of social-evaluative concerns than would boys; (2) Social-evaluative concerns would foster personal distress in the form of depression, as well as interpersonal competence in the form of heightened prosocial behavior and diminished overtly aggressive behavior; and (3) Social-evaluative concerns would contribute to sex differences in depression and interpersonal competence (higher levels of both in girls than boys). Figure 1 displays this dual pathway to well-being and ill-being.

As reflected in the figure, however, the network of predicted associations among social-evaluative concerns, depression, and interpersonal competence is complex. On the one hand, social-evaluative concerns are expected to exert *positive* effects on both depression and interpersonal competence. On the other hand, depression and interpersonal competence typically are *negatively* related to each other (for reviews, see Gotlib & Hammen, 1992; Rudolph et al., in press). This set of associations may, therefore, result in the occurrence of suppression effects. To elaborate, suppression occurs when the relation between two variables obscures their relation with a third variable (Cohen & Cohen, 1983). More specifically, suppression occurs when the signs of the direct and indirect effects of one variable on another are in the opposite direction (Shrout & Bolger, 2002). Suppression is revealed when adjusting for a third variable increases the magnitude of the association between an independent and dependent variable (Cohen & Cohen, 1983; Cooper & Orcutt, 2000). In cases of suppression, it is considered more appropriate to interpret the direct effect

that adjusts for the suppressor than the total effect (Cohen & Cohen, 1983; Shrout & Bolger, 2002).

In the proposed model (see Figure 1), the direct effect of social-evaluative concerns on interpersonal competence is positive (social-evaluative concerns are associated with *more* competence). However, the indirect effect is negative (social-evaluative concerns are associated with depression, which is associated with *less* competence). In this case, the total effect (i.e., the effect of social-evaluative concerns on competence estimated without adjusting for depression) might be misleadingly small or even nonexistent (Cohen & Cohen, 1983; Shrout & Bolger, 2002). Likewise, the direct positive effect of social-evaluative concerns on depression may be suppressed by the indirect negative effect via interpersonal competence. The magnitude of these two suppression effects depends on the direction and strength of the association between interpersonal competence and depression. If depression leads to low levels of competence, the association between social-evaluative concerns and competence should increase when accounting for depression. If low levels of competence lead to depression, the association between social-evaluative concerns and depression should increase when accounting for competence. Because theory and research suggest both directions of influence (for reviews, see Gotlib & Hammen, 1992; Rudolph et al., in press), we tested two separate models, each of which accounted for one of the directions of influence.

Testing the proposed network of associations extended existing research on sex, relational orientation, and socioemotional outcomes in several ways. First, although prior theory and research suggest that particular relational styles may have both positive and negative consequences, few studies establish evidence for these opposing costs and benefits of one attribute within a single study, or elaborate on the nature of the suppression effects that may occur due to these opposing influences (for exceptions, see Cooper et al., 1998; Rose, 2002; Saragovi et al., 2002; Zuroff et al., 1995). Moreover, the specific interpersonal benefits of social-evaluative concerns have not been studied. Second, although studies link sex-typed attributes similar to social-evaluative concerns with emotional difficulties and interpersonal competence, few studies have examined directly, through tests of mediation, whether such attributes *account for* sex differences in emotional and social well-being. Third, much of the relevant research is based on cross-sectional data, which prevents conclusions regarding the sequence of associations; the present study employed a longitudinal design to permit an examination of the direction of influence between social-evaluative concerns and socioemotional well-being. Finally, research examining the interpersonal outcomes associated with relationship investment often relies on self-report measures of competence; in the present study, teachers provided information about adolescents' competence in the peer group.

Method

Participants

Participants were adolescents from the University of Illinois Transition to Adolescence Project (Rudolph & Clark, 2001; Rudolph, Kurlakowsky, & Conley, 2001; Rudolph, Lambert, Clark, & Kurlakowsky, 2001), which involved a group of early adolescents recruited from several Midwestern school districts. The present sample included 474 fifth graders (M age = 11.2 years, $SD = .50$; 50.2% female; 68.1% White, 26.8% African American, 1.9% Asian American, 1.5% Latino, 1.7% other). The districts included families from a wide range of socioeconomic classes, with an average of approximately 50% of adolescents receiving federally subsidized school lunch across the districts.¹

Parents received a letter describing the study and requesting that they contact the school or the research investigators if they did not want their child to participate. This sample included 95% of the eligible students in the targeted schools; 78% of the original sample participated in the follow-up assessment. The majority of the nonparticipants at follow-up were unavailable due to a move to a new district or to absence at all of the assessment sessions. The participants and nonparticipants at follow-up did not differ significantly in sex, age, or Wave 1 scores on the study variables, $t_s < 1.77$, *ns*. The nonparticipants at follow-up included a higher proportion of adolescents from minority ethnic groups, $\chi^2(1) = 6.61$, $p < .05$.

Procedures

The study involved a two-wave, short-term longitudinal design. Adolescents completed a variety of questionnaire measures during the spring of one school year and the fall of the following school year, approximately six to seven months apart. Questions were read aloud by a research assistant and the students recorded their responses. Teachers provided reports of interpersonal competence on 99% and 95% of the participating students at the Wave 1 and Wave 2 assessments, respectively.

Measures

Social-evaluative concerns—Adolescents completed the fear of negative evaluation scale developed by La Greca and colleagues (1988) to assess concerns about social evaluation by peers (e.g., “I worry about what other kids think of me.”). Each of six items is rated on a three-point scale (0 = *Never True* to 2 = *Always True*). The mean of the items was calculated, with higher scores reflecting greater social-evaluative concerns ($\alpha = .85$). Test-retest reliability and validity of this measure have been established in prior research (La Greca et al., 1988).

Depressive symptoms—Depressive symptoms were assessed with a subset of items from the Children’s Depression Inventory (CDI; Kovacs, 1980/81). This measure assesses a variety of symptoms associated with depression. Each item presents three response alternatives (coded 0 to 2) representing varying severity of symptoms. Adolescents indicate which alternative best describes how they have been feeling in the past two weeks. The CDI has well-established reliability and validity (Kovacs, 1980/81; Smucker, Craighead, Craighead, & Green, 1986).

Because the CDI includes a range of symptoms of general distress, some of which are nonspecific to depression (e.g., academic impairment, misbehavior), we selected a subset of items to form a depression composite. As discussed earlier, we expected that social-evaluative concerns would be especially likely to predict the cognitive and emotional symptoms of depression. Thus, items that assessed these symptoms were selected, excluding items that overlapped with the other constructs in this study (e.g., low perceived social competence). The depression composite included the sum of 10 items assessing symptoms of sadness, crying, anhedonia, irritability, hopelessness, low self-esteem/worthlessness, suicidal ideation, and indecision. This depression composite was internally consistent ($\alpha = .83$) and stable over the six-month period, $r(358) = .58$, $p < .001$.

Interpersonal competence—Teachers completed two subscales of the Teacher Assessment of Social Behavior (Cassidy & Asher, 1992): Prosocial (e.g., “This child is

¹This estimate was based on 69% of the sample. Because some schools did not release this information, lunch status was not available for the remaining participants. However, estimates based on school-wide information also suggested that approximately 50% of the students in these schools were receiving federally subsidized school lunches.

friendly and nice to other children.”) and Aggressive (e.g., “This child hurts other children.”). Each subscale contains three items that are rated on a five-point scale (1 = *Very Uncharacteristic* to 5 = *Very Characteristic*). Because prosocial and aggressive behavior were strongly negatively correlated, $r(466) = -.76, p < .001$, and similar results were expected for the two types of behavior, an interpersonal competence composite was computed by averaging ratings on all six items (aggressive behavior was reverse coded such that higher scores on this composite reflect higher levels of interpersonal competence). This composite was internally consistent ($\alpha = .91$), and ratings completed by different teachers were significantly correlated over the six-month period, $r(346) = .49, p < .001$. This measure has been well-validated in past research (Cassidy & Asher, 1992; Rudolph & Clark, 2001).

Results

Preliminary Analyses

Table 1 displays the means and standard deviations for social-evaluative concerns, depression, and interpersonal competence. A multivariate repeated-measures analysis of variance was conducted with Sex as a between-subjects factor, and Wave (Wave 1, Wave 2) as a within-subjects factor. Because social-evaluative concerns were not assessed at Wave 2, this variable was omitted from this analysis. This analysis yielded significant main effects of Sex, $F(2, 317) = 12.16, p < .001$, and Wave, $F(2, 317) = 25.10, p < .001$, and a marginal Sex x Wave interaction, $F(2, 317) = 2.92, p < .06$. Follow-up univariate analyses revealed significant main effects of Sex for depression $F(1, 358) = 9.53, p < .01$, and interpersonal competence, $F(1, 346) = 14.51, p < .001$ (elaborated in Table 2). Significant main effects of Wave were found for depression, $F(1, 358) = 43.42, p < .001$, and interpersonal competence, $F(1, 346) = 13.17, p < .001$, reflecting declines in depression and increases in competence over time. Finally, a significant Sex x Wave interaction was found for interpersonal competence, $F(1, 346) = 4.34, p < .05$, reflecting an increase in the sex difference in competence across time, with girls increasing relatively more than boys (Girls: Wave 1 $M = 4.17, SD = .84$; Wave 2 $M = 4.44, SD = .73$. Boys: Wave 1 $M = 3.87, SD = .97$; Wave 2 $M = 4.03, SD = .93$).

Correlational Analyses

Table 2 displays the zero-order correlations among sex, social-evaluative concerns, depressive symptoms, and interpersonal competence. As expected, girls demonstrated significantly higher levels of social-evaluative concerns than did boys. Girls also demonstrated significantly higher levels of depressive symptoms and interpersonal competence than did boys. Social-evaluative concerns were not significantly associated with interpersonal competence. However, as noted earlier, if depression acts as a suppressor of this association, this zero-order correlation is misleading. We therefore examined the partial correlations between social-evaluative concerns and interpersonal competence, adjusting for depression. As anticipated, and consistent with the presence of a suppressor effect, these associations became larger and significant (see Cohen & Cohen, 1983; Shrout & Bolger, 2002). Specifically, social-evaluative concerns were associated with higher levels of interpersonal competence at Wave 1, $r(423) = .13, p < .01$, and Wave 2, $r(297) = .13, p < .05$, after adjusting for concurrent depression. Partial correlations also were conducted between social-evaluative concerns and depression, adjusting for interpersonal competence. These partial correlations were slightly higher than the zero-order correlations [$r(423) = .43, p < .001$, and $r(297) = .38, p < .001$, at Waves 1 and 2, respectively], again suggesting a small suppression effect. Finally, as expected, depression was associated with lower levels of interpersonal competence within each wave.

Path Modeling

Next, we conducted a path analysis using Amos Version 4.0 (Arbuckle, 1999) to examine the extent to which social-evaluative concerns accounted for sex differences in depressive symptoms and interpersonal competence. We tested two models. Both models included sex (0 = male, 1 = female) as a predictor of Wave 1 social-evaluative concerns, depression, and interpersonal competence, and Wave 1 social-evaluative concerns as a predictor of Wave 1 and Wave 2 depression and interpersonal competence. Given the stability in depression and interpersonal competence over time, paths were included between the Wave 1 and Wave 2 measures of these two variables.

To model the proposed suppression effects, we also included paths between depressive symptoms and interpersonal competence within each wave.² In the first model, this path was estimated from depression to competence. In the second model, this path was estimated from competence to depression. If the primary direction of influence runs from depression to competence, we would expect that the direct effect of depression on competence would be larger than the reverse effect, adjusting for depression would have a larger impact on the magnitude of the social-evaluative concerns-interpersonal competence effect (i.e., would lead to a larger increase) than adjusting for competence would have on the social-evaluative concerns-depression effect. In contrast, if the primary direction of influence runs from competence to depression, we would expect the opposite pattern of effects.

Model 1: Depression suppresses the association between social-evaluative concerns and interpersonal competence—The first model provided a strong fit to the data, $\chi^2(4, N = 300) = 11.91, p = .018, GFI = .99, CFI = .95, IFI = .95, RMSEA = .081$. However, as anticipated, the direct effect of sex on depression was nonsignificant, $\gamma = .06, ns$ (versus a total effect of $\gamma = .16, p < .01$, when social-evaluative concerns were not adjusted for). Moreover, the direct effect of sex on interpersonal competence was only marginally significant, $\gamma = .12, p < .10$ (versus a total effect of $\gamma = .14, p < .05$, when social-evaluative concerns were not adjusted for). These findings suggest that social-evaluative concerns mediated the sex difference in depression, and partially mediated the sex difference in interpersonal competence. Following Shrout and Bolger (2002), to quantify the strength of mediation we calculated an effect proportion (indirect effect/total effect). The effect proportion for depressive symptoms indicated that 75% of the sex difference was accounted for by social-evaluative concerns. The effect proportion for interpersonal competence indicated that 30% of the sex difference was accounted for by social-evaluative concerns.

Because the direct effect of sex on depression was nonsignificant, we eliminated this path in our final model. The remaining path coefficients in the reduced model were virtually identical to those in the full model (average difference in path coefficients = .002). Thus, the reduced model is presented in Figure 2. This model provided a strong fit to the data, $\chi^2(5, N = 300) = 12.89, p = .024, GFI = .99, CFI = .95, IFI = .95, RMSEA = .073$. As anticipated, girls demonstrated higher levels of social-evaluative concerns, $\gamma = .28, p < .001$. In turn, social-evaluative concerns predicted heightened depression at Wave 1, $\beta = .44, p < .001$, and at Wave 2, $\beta = .13, p < .05$, after adjusting for Wave 1 depression. Social-evaluative concerns also predicted higher levels of interpersonal competence at Wave 1, $\beta = .15, p < .05$, and at Wave 2, $\beta = .09, p < .10$, after adjusting for Wave 1 interpersonal competence. As expected, significant stability was found between depression and interpersonal competence across waves. Depression was significantly associated with lower levels of interpersonal competence at Wave 1, $\beta = -.22, p < .001$, and Wave 2, $\beta = -.18, p < .01$.

²The lagged paths from Wave 1 depression to Wave 2 interpersonal competence, and Wave 1 interpersonal competence to Wave 2 depression, originally were included but were found to be nonsignificant, so they were eliminated from the final models.

Model 2: Interpersonal competence suppresses the association between social-evaluative concerns and depression—The second model provided a weaker fit to the data, $\chi^2(5, N = 300) = 18.61, p = .002, GFI = .98, CFI = .91, IFI = .92, RMSEA = .095$. As would be expected, the paths from social-evaluative concerns to interpersonal competence at both waves were nonsignificant (β s = .05 and .03), given that the model did not adjust for depression when estimating these paths. The paths from social-evaluative concerns to Wave 1 depression, $\beta = .46, p < .001$, and Wave 2 depression, $\beta = .15, p < .01$, were slightly higher than in the first model, suggesting that interpersonal competence somewhat suppressed the association between social-evaluative concerns and depression. The paths from interpersonal competence to depression were significant at Wave 1, $\beta = -.18, p < .001$, and Wave 2, $\beta = -.12, p < .05$, but slightly smaller than those in the reverse direction. In this model, the path from sex to Wave 1 interpersonal competence was nonsignificant, $\beta = .10, ns$.

Model summary—These results suggest that the within-wave associations from depression to interpersonal competence were slightly higher than those in the reverse direction. Accordingly, the suppression effects for social-evaluative concerns predicting interpersonal competence ($\beta = .05$ vs. $.15$ and $.03$ vs. $.09$, for Waves 1 and 2, respectively) were slightly higher than the suppression effects for social-evaluative concerns predicting depression ($.44$ vs. $.46, .13$ vs. $.15$, for Waves 1 and 2, respectively), and the former model provided a more adequate fit than the latter model. However, it should be noted that these suppression effects, as well as the size of the difference between the effects in the two models, were fairly small.

Discussion

This research examined the socioemotional costs and benefits of sex-linked social-evaluative concerns. Whereas prior research often has conceptualized girls' tendency toward social-evaluative concerns as an emotional liability, we hypothesized that these concerns also yield social advantages. Consistent with predictions, social-evaluative concerns fostered higher levels of depression, but also promoted interpersonal competence. Moreover, social-evaluative concerns accounted fully for the sex difference in depression and partially for the sex difference in interpersonal competence.

Socioemotional Costs and Benefits of Social-Evaluative Concerns

As anticipated, girls reported higher levels of social-evaluative concerns than boys. These findings are consistent with a growing body of research that indicates a sex difference in personality attributes reflecting a heightened investment in relationships (Gore et al., 1993; Kessler & McLeod, 1984; Leadbeater et al., 1999; for reviews, see Cross & Madson, 1997; Helgeson, 1994). This study also sheds light on the personal and interpersonal consequences of social-evaluative concerns. As anticipated, heightened concerns were associated with depression, both concurrently and over time. Moreover, social-evaluative concerns explained the observed sex difference in depression, suggesting that these concerns act as a mechanism underlying adolescent girls' vulnerability to depression. The present study therefore supports and extends theories regarding the emergence of sex differences in adolescent depression.

If social-evaluative concerns lead adolescent girls to experience higher levels of depression, which typically compromises interpersonal competence, one would expect that girls would show less competence than boys. However, we hypothesized that this same attribute would act as an asset in forming positive peer relationships. Specifically, we proposed that social-evaluative concerns would serve a critical self-regulatory function by motivating adolescents

to engage in relationship-enhancing behavior and to inhibit expressions of aggression that would jeopardize their relationships. These positive consequences were expected to counteract the negative impact of depression on interpersonal competence. To assess this complex system of associations, we examined whether depression suppressed the association between social-evaluative concerns and competence. As expected, zero-order correlations did not reveal a significant association between social-evaluative concerns and competence; however, once depression was controlled, social-evaluative concerns predicted more competence both concurrently and over time. Further, social-evaluative concerns partially accounted for the observed sex difference in interpersonal competence. These findings suggest that if girls did not experience heightened depression due to their social-evaluative concerns, they would be even more interpersonally competent than they are, thereby increasing the sex difference in competence. Likewise, the small suppressive effect of interpersonal competence on the association between social-evaluative concerns and depression suggests that girls might be even more depressed if they did not experience the interpersonal benefits of social-evaluative concerns.

The present study builds on prior theory and research in several important ways. Although several theories propose both positive and negative consequences of particular relational orientation styles, these theories typically suggest that different facets of the same orientation account for these opposing effects. For example, research distinguishing between interpersonal relatedness versus interpersonal dependency (e.g., Blatt et al., 1995; Henrich, Blatt, Kuperminc, Zohar, & Leadbeater, 2001; Zuroff et al., 1999) suggests that the former accounts for more positive relationship outcomes, whereas the latter accounts for higher levels of emotional distress. Similarly, it has been suggested that communal traits predict positive relationships outcomes, but unmitigated communion predicts negative emotional outcomes (Fritz & Helgeson, 1998; Helgeson, 1994). In contrast, in the present study we found that the same attribute exerted both positive and negative effects. These findings suggest that social-evaluative concerns may have links with both positive and negative facets of related constructs. For example, these concerns may incorporate both the adaptive aspects of relatedness and communion (e.g., a focus on maintaining strong relationships, which would be reflected in part by positive evaluations from peers) and the maladaptive aspects of dependency and unmitigated communion (e.g., apprehension about what will happen if relationships are damaged, which would be reflected in part by negative evaluations by peers).

Future research will need to determine how these positive and negative tradeoffs of social-evaluative concerns operate. On the one hand, individuals may experience both the costs and the benefits of possessing heightened concerns. That is, individuals with this attribute may endure a certain degree of emotional distress in the process of developing and maintaining strong relationships. Individuals also may experience the costs under certain conditions (e.g., when they experience trouble in relationships) and the benefits under other conditions (e.g., when they experience relationship success). On the other hand, certain individuals may reap the benefits, whereas others pay the costs. That is, some individuals may harness these concerns in an adaptive way and thus experience more of the positive consequences, whereas other individuals may be immobilized by these concerns and thus experience more of the negative consequences. Identifying other personality attributes (e.g., self-efficacy beliefs) that determine which individuals experience the costs and which experience the benefits would be a fruitful avenue for future research.

Another question of interest is whether a particularly healthy balance of socioemotional trade-offs is achieved in the presence of moderate levels of social-evaluative concerns. That is, perhaps at moderate levels these concerns confer few of the emotional costs and many of the interpersonal benefits. As a preliminary investigation of this possibility, we conducted

regression analyses that considered curvilinear associations between social-evaluative concerns and socioemotional consequences. These analyses revealed a significant quadratic term in the prediction of concurrent depression, $\beta = .15, t = 3.00, p < .01$. Further graphic examination of this effect revealed that social-evaluative concerns were not predictive of depression at low to moderate levels, but were strongly predictive at higher levels. Additional analysis of nonlinear associations is therefore indicated.

This study also extends existing research by directly examining one pathway underlying sex differences in depression and interpersonal competence. Although prior theory has implicated a heightened investment in relationships as a determinant of the sex differences in both emotional distress (Gore et al., 1993; Kessler & McLeod, 1984) and interpersonal competence (Cross & Madson, 1997; Helgeson, 1994), these ideas generally have not been investigated using direct empirical tests of mediation as in the present study. However, social-evaluative concerns accounted for only approximately one-third of the sex difference in interpersonal competence, suggesting that other processes underlying this difference warrant attention. It is likely that other attributes linked to relationship investment (e.g., empathy, accurate interpretation of social cues) also contribute to the sex difference in competence.

Results also indicated the importance of considering how the negative consequences of relationship investment may suppress the positive consequences. These suppression effects are consistent with other research examining similar processes. For example, research demonstrates that individuals with avoidant attachment styles are more hostile and depressed, which promotes their engagement in risky behavior. However, these individuals also are more anxious, which inhibits their engagement in risky behavior (Cooper et al., 1998), leading to opposing effects. Failure to consider such suppression effects may lead to inaccurate conclusions regarding the influence of relationship investment on well-being.

In the present study, it is possible that the network of observed associations was influenced in part by the sources of information for each of the key constructs. On the one hand, a strength of this study is its use of teachers as informants of interpersonal competence. This design adds to prior research that primarily has linked relationship investment with self-perceived competence by demonstrating that social-evaluative concerns contribute to higher levels of competence as perceived by others. On the other hand, social-evaluative concerns may have been more strongly linked to depression than to interpersonal competence because adolescents completed both of the former measures, whereas teachers reported on interpersonal competence. The shared method variance between social-evaluative concerns and depression, but not interpersonal competence, also may have influenced the strength of the observed suppression effects. Thus, future research examining these associations would benefit from the use of multiple informants for each construct.

This study also was limited by the fact that two separate models had to be estimated in order to model both directions of influence between depression and interpersonal competence (i.e., to adjust for depression when predicting interpersonal competence, and interpersonal competence when predicting depression). Given the small difference in the size of the paths leading from depression to competence versus the paths leading from competence to depression, along with the nonsignificant longitudinal associations, further research is necessary to clarify the direction of influence and the nature of the associated suppression effects. Such research would benefit from including multiple assessments of these variables across shorter time frames.

Conclusions

The present research reveals how sex-linked social-evaluative concerns might contribute to the development of sex differences in socioemotional well-being during early adolescence. In particular, by examining both the costs and benefits of social-evaluative concerns, this study addressed an intriguing paradox that is not well understood – why adolescent girls experience heightened risk for depression, which typically is associated with relationship difficulties, yet often possess more intimate and supportive relationships than boys. More generally, the results highlight the need for ongoing efforts to develop a multi-faceted conceptualization of sex-linked relational orientation styles that considers both the advantages and disadvantages of particular styles.

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Figure 1. Theoretical model of the socioemotional consequences of sex-linked social-evaluative concerns. Paths marked by a + indicate positive effects; paths marked by a – indicate negative effects.



Figure 2. Path analysis predicting depressive symptoms and interpersonal competence from sex and social-evaluative concerns. Path coefficients are standardized. + $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 1

Descriptives for Social-Evaluative Concerns, Depressive Symptoms, and Interpersonal Competence

	Wave 1		Wave 2	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Social-Evaluative Concerns ^a	.66	.53	--	--
Depressive Symptoms	3.55	3.59	2.50	2.84
Interpersonal Competence	4.02	.92	4.23	.86

^aNot assessed at Wave 2.

Table 2

Intercorrelations Among the Variables

	1	2	3	4	5	6
Wave 1						
1. Sex	---	.23****	.14**	.17****	.13*	.24****
2. Social-Evaluative Concerns		---	.42****	.07	.35****	.06
3. Depressive Symptoms			---	-.10*	.58****	-.07
4. Interpersonal Competence				---	-.08	.49****
Wave 2						
5. Depressive Symptoms					---	-.13*
6. Interpersonal Competence						---

* $p < .05$.

** $p < .01$.

*** $p < .001$.