SEX DIFFERENCES IN DISTRESS: REAL OR ARTIFACT?*

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Women report greater distress than men, but do women genuinely experience greater distress, suggesting a heavier burden of hardship and constraint? Or do they merely report the feelings in standard indexes more frequently? Perhaps women discuss their emotions more freely. Or perhaps the indexes tap “feminine” emotions such as depression rather than “masculine” ones such as anger. This study analyzes data from a 1990 U.S. sample of 1,282 women and 749 men. Results show that men keep emotions to themselves more than women, and that women express emotions more freely than men. However, these factors do not explain the effect of sex on reported levels of distress—an effect that remains significant with adjustment for these factors. Our results also contradict the idea that the sex difference in distress would diminish if the indexes of distress contained more items that tap anger. Adjusting for emotional reserve and expressiveness, women experience anger more often than men, as they do sadness, anxiety, malaise, and aches. In fact, being female has twice the effect on the frequency of anger that it has on the frequency of sadness. Women report feeling happy as often as men, but adjusting for emotional expressiveness reveals a negative effect of being female on happiness. Overall, women experience distress about 30 percent more often than men. We discuss the possibility that drug abuse and heavy drinking mask male distress, but find little evidence that those behaviors ameliorate distress. We conclude that women genuinely suffer more distress than men.

American surveys find that women report higher average levels of depression and anxiety than men (Aneshensel 1992; Mirowsky and Ross 1986). What explains these sex differences in reports of distress? One possibility is that women genuinely suffer greater distress than men. If so, the difference in distress reflects and reveals women’s relative disadvantage in American society. Another possibility is that women may simply express their emotions more freely than men, and thus appear more distressed. Or, women may respond to stressors with somewhat different emotions than men. Thus, if surveys ask more questions about responses typical of women than about those typical of men, women may falsely appear more distressed.

DISTRESS AND FEMALE DEPRESSION

Theories of gender inequality, gender roles, or gender-based exposure to social stressors explain women’s elevated distress as the consequence of inequality and disadvantage (Gove and Tudor 1977; Pearlin 1989; Ross and Huber 1985). According to the structured-strain view, different positions in the social structure expose individuals to different amounts of hardship and constraint. Women’s positions at work and in the family disadvantage them compared to men because of their greater burden of demands and limitations. This burden creates stress and frus-

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tiation and is manifested in higher levels of distress.

Two alternative views say that women simply express themselves differently than men, thus creating a false impression of greater distress (Nolen-Hoeksema 1987). According to the response-bias view, women express all emotions more freely than men. According to this view, women are more aware of men of their emotions, they are also more likely to talk about emotions to others, to be open and expressive, and to think that discussing personal well-being is acceptable rather than stigmatizing. Thus, when women and men are questioned about depression and anxiety the women report it more frequently. Alternatively, the gendered-response theory says women respond to the ubiquitous stress of life with somewhat different emotions than men. In particular, women might feel anxious and depressed where men might feel agitated and angry. If surveys ask more questions about types of distress typical of women than about those typical of men, then women may falsely appear more distressed. Below we summarize the arguments and research concerning the response-bias and gendered-response alternatives to the view that structured strain accounts for women’s greater distress.

Expressiveness and Response Bias

According to the response-bias hypothesis, men and women differ in their likelihood of expressing emotions or feelings to an interviewer (Phillips and Segal 1969; Ritchey, LaGory, and Mullis 1993; Seiler 1975). Historically, women have specialized in emotionally supportive and expressive activities and men in competitive ones. To women, emotions carry the signals between connected beings; to men they reveal weaknesses. Thus women express emotions more freely and men keep emotions more hidden, perhaps even from themselves. The response-bias hypothesis claims that women’s greater apparent distress flows largely or strictly from differences in reporting and not from differences in experience.

Proponents of this view cite two kinds of evidence to support it. First, women do not report less happiness than men, and sometimes they report more (Bradburn 1969; Gove 1978; Gurin, Veroff, and Feld 1960; Wood, Rhodes, and Whelan 1989). It seems inconsistent that women would be more distressed than men but equally happy or more happy. Second, women report more physiological symptoms than men as well as more psychological ones, despite the fact that women live longer than men. In fact, compared to men, women report more physical symptoms, more acute conditions, more non-fatal chronic diseases, more physician visits, and more hospital stays, but men have higher rates of most fatal chronic diseases and higher mortality rates (Verbrugge 1986). To many researchers, these facts say that women genuinely suffer more of the nonfatal disorders caused or exacerbated by stress, whereas men suffer more of the damaging and deadly disorders caused or exacerbated by risky and abusive behavior (Verbrugge 1985, 1986). However, others read these same facts as saying that the sex ratio of disease inverts as the mode of assessment becomes more objective and less susceptible to response bias—going from symptom reports to diagnoses to death certificates. The inconsistency between the rates of symptoms or complaints and the rates of fatal disease leads some researchers to view women’s greater distress as partially or wholly response bias (Ritchey, LaGory, and Mullis 1991, 1993).

The fact that, compared to men, women report as much happiness and live longer suggests that response tendencies may account for higher distress reported by women. To determine whether a specific response tendency actually accounts for women’s higher levels of distress, research must answer three empirical questions (Clancy and Gove 1974; Ross and Mirowsky 1984). First, does the response tendency significantly increase reports of distress? If not, the tendency cannot account for any increases in reported distress. Second, do women more than men tend to respond that way? If not, then the tendency cannot account for differences between women and men. And third, does adjusting for the response tendency substantially decrease the estimated effect of sex on distress? If not, then response bias accounts for only a small part of the effect of sex on reported distress.

Only a few previous studies have tested response tendencies in all three ways. How-
ever, intuitively none of the tendencies examined seem like clear measures of expressiveness. Previous studies have tested three response tendencies: yea-saying or acquiescence, the tendency to give socially desirable responses, and the perceived social undesirability of symptoms of psychophysiological distress (Clancy and Gove 1974; Ross and Mirowsky 1984). Yea-saying does not affect reports of distress. Even if it did, women yea-say less often than men do. The tendency to give socially desirable responses decreases reports of distress, but women show this tendency as much as men. Finally, men do not rate the symptoms as more undesirable than women rate them. In the end, the effect of sex on reports of psychophysiological distress remains significant after adjusting for yea-saying, the tendency to give socially desirable responses, and the perceived undesirability of the symptoms. These results clearly fail to support response bias as an explanation of women's greater reported distress. However, being emotionally expressive is not the same thing as yea-saying or giving a socially desirable response, and women might be more willing to report symptoms than men even though agreeing with men on the undesirability of those symptoms.

**Types of Distress and “Gendered Responses”**

According to the gendered-response hypothesis, men and women differ in the nature of their emotional responses to stress (Dohrenwend and Dohrenwend 1976, 1977): Men get angry and hostile—women get sad and depressed. Sex differences in type of response emerge when sex-role socialization channels the psychodynamics of depression (see the review by Rosenfield 1980). According to this thesis, depression emerges from the frustration of desires and aspirations. Frustration generates rage and hostility. Depression results when a person turns that anger inward, punishing the self for failure and inadequacy. Men are socialized for competitive and combative roles that allow, and even encourage, the outward expression of anger and hostility. Women are socialized for nurturing and supportive roles that discourage such expressions. Thus, frustration makes men angry and makes women depressed.

According to the gendered-response hypothesis, women may appear more distressed than men simply because the standard indexes of distress ask more questions about depression and anxiety than about anger and hostility. Men and women may experience similar levels of frustration, but men get angry at others and women get upset with themselves. Although the reasoning behind the gendered-response theory is clear and plausible, to date research results do not strongly support it. One clinical study found surprisingly high levels of anger and hostility among depressed female patients, but did not systematically compare these levels to those in male patients (Weissman and Paykel 1974). Another clinical study that followed 180 women and 50 men through treatment for recurrent depression found that the women reported significantly more anger and hostility than did the men at baseline (Frank, Carpenter, and Kupfer 1988). After eight weeks of treatment this difference disappeared. Although this seems to contradict the gendered-response hypothesis, it could represent a selection effect. If women are not supposed to get angry, those who do may wind up in treatment because it is a deviant response (Rosenfield 1982). However, a community survey of 2,248 U.S. adults found that the women reported significantly more “manifest irritation” (Gove 1978), and a survey of 451 married couples in the rural Midwest found that wives reported significantly greater marital hostility than did their husbands (Conger, Lorenz, Elder, Simons, and Ge 1993).

**Testing Response-Biases and Gendered-Responses**

Female expressiveness may mask the distinction between feminine and masculine types of distress. Women may report greater hostility and anger than men simply because women more freely report their emotions. Thus, the failure to find clear evidence of gendered responses may be seen as evidence of response bias. While this may seem like a reasonable interpretation, it reveals a possible circularity in the arguments against genuine sex differences in distress: If men do report more anger than women, then women's greater depression and anxiety is dismissed...
as the "feminine response" to burdens and frustrations shared equally with men (gendered response); if men do not report more anger than women do, then men's lower distress is dismissed as "masculine stoicism" and reserve about burdens and frustrations shared equally with women (response bias). Any true tests of the response-bias and gendered-response hypotheses must avoid this circularity. It must be possible to accept or reject each hypothesis independently.

Independent tests require explicit measures and adjustments for expressiveness, and the examination of various forms of distress. We measure expressiveness directly by asking people whether they keep their emotions to themselves, and indirectly by assessing the tendency to report both positive and negative emotions (an unobtrusive latent factor). We examine various outcomes, including depressed mood (sadness), positive mood (happiness), anxiety, anger, malaise, and physiological symptoms (aches).

Accepting the response-bias perspective requires that we find support for all three of the following hypotheses:

H₁: Women are more likely than men to express their feelings.

H₂: Expressiveness increases reports of distress.

H₃: Adjustment for the tendency to express emotions explains sex differences in distress (the effect of sex on distress becomes insignificant with adjustment for response tendencies).

Accepting the gendered-response perspective requires that we find support for both of the following hypotheses:

H₄: Women have higher levels of depression; men have higher levels of anger.

H₅: People with higher levels of anger have lower levels of depression.

METHODS

Sample

This research draws on a fall 1990 telephone survey of a national probability sample of U.S. households. Sampling followed the Waksberg-Mitofsky random-digit dialing procedure, which ensures the inclusion of unlisted numbers (Waksberg 1978). The interviewers called primarily during evenings and weekends. Unanswered working numbers were called back 10 times before being dropped. Non-household numbers were dropped (businesses, dorms, etc.). In each household the adult (18 years old or older) with the most recent birthday was selected as respondent. (This is an efficient way to randomly select a respondent within the household [O'Rourke and Blair 1983]). Up to 10 callbacks were made to selected respondents who could not be interviewed immediately. Of the selected respondents, 82.3 percent completed interviews, yielding a total of 2,031 respondents (1,282 females and 749 males), ranging in age from 18 to 90.¹

¹ The method produces a sample with characteristics broadly representative of the U.S. population as a whole. For example, the mean household income in the U.S. in 1990 was $37,922 compared to $38,632 in the sample. Among the adults age 25 and older the median education is 12.4 years in the U.S. compared to 12.0 in the sample. In the U.S., 11.3 percent of households are Black and 6.6 percent Hispanic, compared to 10.1 percent and 5.4 percent of the sample respectively. Sixty percent of U.S. adults are married, compared to 60.6 percent of the sample. The percentage employed in the population and sample, respectively, are 71.9 percent and 74.0 percent for men and 54.3 percent and 57.1 percent for women. Of the adults aged 20 and older, the age breakdowns of the population and of the sample respectively are 22.9 percent and 21.5 percent in their twenties, 23.6 percent and 25.6 percent in their thirties, 17.7 and 18.9 percent in their forties, 12.3 percent and 12.2 percent in their fifties, and 23.6 percent and 21.3 percent in their sixties or older (statistics from United States Bureau of the Census 1993).

Although the sample approximates the demographic profile of the population in many ways, it contains a lower fraction of males. Males comprise 47.8 percent of the U.S. population age 18 and over and are only 56.2 percent of the sample. Research suggests that most of this difference probably arises because women are more likely to answer the telephone than their male partners, and the person who answers sometimes gatekeeps for the person selected (O'Rourke and Lakner 1989). A comparison of the sex ratios by marital status shows the effect. For the married population age 18 and over the ratio of females to males is 1.02. The sample's corresponding ratio is 1.75.
SEX DIFFERENCES IN DISTRESS

The mean age is 43.5, with 23.4 percent of the sample under age 30 and 21.2 percent age 60 or older. Of the total sample, 60.6 percent are married and 17.5 percent are minorities (including 10.1 percent Black and 5.4 percent Hispanic). There is one adult in 24.9 percent of the sample's households, two in 59.5 percent, three in 10.6 percent, and four or more in 5.0 percent. The mean household income is $38,632 ($44,080 for married persons and $30,267 for others; $33,512 for minorities and $39,737 others). The mean education is 13.2 years, with 27.9 percent holding a bachelors degree or higher and with 13.3 percent having less than a high school degree.

Measures

Distress is measured using six indexes representing sadness, happiness, anger, anxiety, malaise, and aches. For each symptom of distress, respondents were asked, “On how many of the past 7 days have you . . . ?” Responses are coded from 0 to 7, from never experiencing the symptom to experiencing it every day. Each index represents the mean frequency of its component items. Sadness averages the frequency of feeling sad, lonely, and unable to shake the blues (α = .82). Happiness averages the frequency of feeling happy, feeling hopeful about the future, and enjoying life (α = .79). Anxiety averages the frequency of worrying a lot about little things, feeling tense or anxious, and feeling restless (α = .82). Anger averages the frequency of feeling annoyed with things or people, feeling angry, and yelling at someone (α = .71). Malaise averages the frequency of feeling everything is an effort, feeling that you just can’t get going, having trouble keeping your mind on what you are doing, and having trouble getting to sleep or staying asleep (α = .73). Aches averages the frequency of having aches and pains, having headaches, and feeling weak all over (α = .60).

Although some researchers invoke emotional expressiveness as an explanation of sex differences in measured distress, we know of none who has measured expressiveness and shown that sex differences in distress vanish when controlling for it. Part of the reason no one has done this may be that differences in the willingness to express emotions are easier to imagine than to measure. Our analyses below take two approaches to assessing possible response bias: one self-evident and the other unobtrusive.

The first measure is a self-evident question about how much the respondent agrees with the statement, “I keep my emotions to myself.” The responses indicate self-evaluated emotional reserve (called “reserve” for short). The response categories are “strongly disagree” (coded −2), “disagree” (coded −1), “agree” (coded 1), and “strongly

(1977). Items in these three indexes load on exploratory factors representing depressed affect, positive affect, and enervation, respectively (Ross and Mirowsky 1984). The items in each index correlate highly with the factor being measured, but only moderately with the other exploratory factors, and show the same pattern of factor correlations for men and women. Items in the anxiety and aches indexes come from the psychological and physiological components of the Langner index, respectively (Langner 1962; Mirowsky and Ross 1983). Items in the anger index are similar to those in Conger et al.'s (1993) index of hostility between marriage partners, except they were modified to reflect anger with anyone (not just with one’s spouse).

2 Items in the sadness, happiness, and malaise indexes come from the Center for Epidemiological Studies Depression Scale (CES-D) (Radloff 1974).
agree” (coded 2). (Six women and 2 men said “don’t know” and were coded 0). This measure is simple and direct. However, it has several disadvantages. Someone who is circumspect about emotions may be disinclined to say so. Or people may be unaware of their own emotional expressiveness compared to others’. On the other hand, people who are wary of sharing emotions with friends and acquaintances may be relieved to report them as an anonymous respondent. Perhaps more to the point, the conscious restraint of one’s emotions may indicate a heightened level of disturbing emotion, a dysfunctional coping strategy, or a sense of needing to tell someone.

The second measure is an unobtrusive latent factor implicit in the reports of positive and negative moods (happiness and sadness). In this crossed 2 × 2 measurement, people who report more of both emotions are considered more emotionally expressive. We call the factor “expression” for short. The model defines expression and depression as crosscutting factors, each indicated by reports of both sadness and of happiness: Expression increases reports of happiness and of sadness net of the level of depression, whereas depression increases reports of sadness and decreases reports of happiness net of the level of expression. (For details and justification of the 2 × 2 measurement design, see Figure 2 below.)

Crossed and balanced measurement was designed originally to deal with the problem of agreement bias in indexes of perceived control (Mirowsky and Ross 1991). Such indexes generally ask people whether they agree (or disagree) with statements that express either instrumental beliefs or fatalistic ones. The tendency to agree (or to disagree) with statements regardless of their content crosscuts the actual level of perceived control and needs to be factored out. Agreement bias is not a problem in most measures of distress, which usually ask people to report the frequency of symptoms rather than asking for agreement or disagreement with statements implying distress. However, the idea of a crosscutting factor and the method of crossed and balanced measurement seem appropriate for distinguishing the level of depression from the degree of emotional expression.

Female is a dummy variable representing sex, coded 1 for females and 0 for males.

Sociodemographic variables are adjusted in some of the models. Age is coded in number of years. Minority status is coded 0 for non-Hispanic whites and 1 for others. Marital status is coded 1 for married or living together as married and 0 otherwise. Education is coded as the number of completed years of formal schooling.

ANALYSIS AND RESULTS

The analysis has three parts. The first part describes sex differences in the degree of emotional expression and tests the response-bias hypothesis. The second part describes sex differences in the type of emotional expression and tests the gendered-response hypothesis. The third part analyzes the impact of sex differences in the degree and type of emotional expression on regression estimates of the sex difference in distress. The introduction to the results in each part explains the reasoning behind its models and analyses.

Analysis 1: Response Bias and Female Expressiveness

Analysis 1 explores the possibility that women seem more depressed than men because women report their emotions more freely.

Self-evident appraisal of expressiveness. The statement, “I keep my emotions to myself,” voices emotional reserve—the self-perceived restraint of emotional expression. Cross-tabulating the responses by sex shows that more men than women claim to keep emotions to themselves. Sixty-eight percent of the men either agree or strongly agree with the statement, compared to 50 percent of the women. Thus, in our sample men are 1.360 times more likely than women to say they keep emotions to themselves. (Alternatively, the odds of agreeing with the statement are 2.125 times greater for men than for women.) The men’s average score exceeds the women’s by about a third of a standard deviation. Both the chi-square test of the cross-tabulation and the t-test of the difference in mean scores are statistically significant at p < .001.
Figure 1. Relationship between Sadness Index Score and Emotional Reserve*  

* Sadness increases with emotional reserve. Women are sadder than men in each category.

Does male reserve account for the fact that men report being depressed less often than women? No. We find that people who claim to keep emotions to themselves report more days of depressed mood, not fewer. The sadness index from the CES-D averages the number of days from the previous week the respondent reported feeling sad, lonely and blue. Figure 1 shows that mean scores for sadness increase with self-reported emotional reserve \( r = .122, p < .001; \eta = .144 \). People who strongly agree that "I keep my emotions to myself" average more than twice the frequency of sadness than people who disagree. Women are sadder than men within each category of emotional reserve.

This simple analysis suggests that male reserve cannot account for sex differences in depression. In fact, if the only difference between the sexes were that men had greater emotional reserve, men would be sadder than women because people who say they keep their emotions to themselves report more sadness than others, not less.

**Unobtrusive appraisal of expressiveness.** The crosscutting factor model indicates that women express emotions more freely than do men, but also that they are more depressed than men. The main difference in results between our two measures is that the unobtrusive factor relates to measures of distress more as one would expect for an index of emotional expressiveness. With the direct question about emotional reserve, people who claim to be the most reserved actually report more days of sadness than others, not fewer. By definition, people with low scores on the expression factor report fewer days of sadness, and fewer of happiness.

The basic model shows the logic behind the crosscutting factor model in its simplest and clearest form. The basic model, shown in Table 1 and Figure 2, hypothesizes that scores on the sadness index equal the sum of the depression and expression factors, whereas scores on the happiness index equal the difference. In the terms of structural equation modeling, the model fixes the metric loadings of the sadness index to +1 on both the depression and expression factors, whereas it fixes the metric loadings of the happiness index to -1 on depression and +1 on expression. The basic model treats the sadness and happiness indexes as exact linear composites of the two crosscutting factors, which overstates the precision of the indexes. Despite the simplification, the basic model produces results consistent with those of a detailed model that follows.

The results are consistent with the hypothesized crosscutting factors in that the model fits the observed variances and covariances well and shows significant variance in each factor. The metric effect of being female on expressiveness is .170 (row 1, column 3 of Table 1). The metric effect of being female on depression is .182 (row 1, column 2 of Table 1). According to the model, women feel more depressed than men, and they express their feelings more freely.

Both the depression and expression factors increase women's scores on the sadness index, but their influence on the happiness index tends to cancel out. In these data women report about the same frequency of happiness as men. (Women actually report slightly more happiness than men, but the difference is not statistically significant \( p = .422 \).) How can women be sadder than men but not less happy? The model says that the apparent inconsistency reflects the presence of the
crosscutting expression factor. Depression shifts women's balance of emotions away from happiness toward sadness, but greater emotional expressiveness means they report more happiness than men do at the same level of depression.4

Interestingly, the basic crosscutting factor model shows no direct effect of self-evaluated reserve on the expression of positive and negative emotions. As in the simple analysis

4 The presence of a crosscutting expression factor can explain why positive and negative emotions load on separate factors in exploratory analyses (Ross and Mirowsky 1984) and why separate indexes of positive and negative emotions often have little or no correlation with each other (Bradburn 1969). Crosscutting factors create larger correlations between items that share the same pattern of loadings on both factors than between ones with different patterns of loadings. For example, feeling sad and feeling blue correlate highly because depression and expression increase both. Likewise, feeling happy and feeling hopeful about the future correlate highly because depression decreases both and expression increases both. In contrast, feeling sad and feeling happy have a smaller correlation (in absolute terms) because depression increases sadness while decreasing happiness, whereas expression increases both. The correlation between feeling sad and feeling happy has one negative component (because they represent opposite poles of the depression continuum) and one positive component (due to expression), which sum to a correlation near zero. Exploratory factor analyses separate items into groups defined by higher correlations within the groups than between them. Thus, exploratory factor analyses put the negative emo-

Table 1. Metric Coefficients from the Basic Crosscutting Factor Model4 Testing Sex Differences in Depression and Emotional Expressiveness: U.S. Men and Women Ages 18 to 90, 1990

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>(1) &quot;I keep my emotions to myself.&quot;</th>
<th>(2) Depression Factor(^b)</th>
<th>(3) Expression Factor(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Female</td>
<td>-.442*** (-8.531)</td>
<td>.182** (3.095)</td>
<td>.170*** (4.729)</td>
</tr>
<tr>
<td>2) &quot;I keep my emotions to myself.&quot;</td>
<td>-</td>
<td>.165*** (6.934)</td>
<td>.000(^c)</td>
</tr>
</tbody>
</table>

\(^{p} < .05\) \(^{**} p < .01\) \(^{***} p < .001\) (two-tailed tests)

\(^a\) EQS Model (Bentler 1989): \(N = 2,027; \chi^2 = .001\); d.f. = 1; \(p = .978\); normed fit = 1.000; nonnormed fit = 1.009; comparative fit = 1.000.

\(^b\) The depression and expression factors are both indicated by a three-item index of sadness and a three-item index of happiness. The metric loadings of the indexes on the depression factor are fixed to +1 and -1 respectively. The metric loadings on the expression factor are both fixed to +1. The regression residuals of the depression and expression factors have a covariance of -0.284 (\(r = -12.539\)).

\(^c\) The parameter is fixed to zero. When freed it is not significantly different from zero.

*Note: Numbers in parentheses are \(t\)-values.*
of Figure 1, depression increases with emotional reserve ($b = .165$, row 2, column 2 of Table 1). Again, our results imply that men would report more depression than would women if the sexes differed only in emotional reserve.

A detailed version of the crosscutting factor model reiterates that women are more expressive than men, but that they are also more depressed. Figure 3 and Tables 2a and 2b show the detailed model. The model adjusts for random error and nonrandom bias in the reporting of individual symptoms, and for possible spuriousness due to marital status, age, and education. The detailed model is truer than the basic one in the sense that it allows for error, bias, and spuriousness. The core results remain essentially the same. Women feel depressed more often than men. Women are more expressive and less reserved about emotions than men, but these differences do not account for the sex difference in depression.

The detailed model also indicates that women report feeling blue less often than men who are equally depressed and expressive (note the direct negative effect of “female” on “blue” net of the “depression” and “expression” factors). Only this one of the six items shows signs of sex bias in reporting. The rest co-vary with sex in proportion to their factor loadings. Those covariances only differ for men and women by small, random amounts, showing that, for the most part, men and women describe their depression in comparable terms.

An alternative model ignores the direct effect of sex on reports of feeling blue by fixing that parameter to zero. The alternative does not fit as well ($\Delta \chi^2 = 4.551$, $\Delta d.f. = 1$, $p < .05$), but the estimated metric effect of sex on depression drops by only 11.9 percent (from .185 to .163), and it remains quite significant (the $t$-value goes from 2.994 to 2.679). The robustness of the estimate reflects three facts. First, sex affects only one of the six items, feeling blue, net of the depression and expression factors. Second, far more of the variance in reports of feeling blue is attributable to the mediating factors than to the direct effect of sex net of those factors. Third, even among women, feeling blue co-varies substantially with the other symptoms.
Table 2a. Metric Coefficients from the Detailed Crosscutting Factor Model\textsuperscript{a} Testing Sex Differences in Depression and Emotional Expressiveness: U.S. Men and Women Ages 18 to 90, 1990

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variables</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&quot;I keep my emotions to myself.&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Female</td>
<td>- .456***</td>
<td>.185**</td>
<td>.148***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-8.860)</td>
<td>(2.994)</td>
<td>(4.274)</td>
<td></td>
</tr>
<tr>
<td>(2) Marriage</td>
<td>- .235***</td>
<td>- .389***</td>
<td>.000\textsuperscript{c}</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-4.761)</td>
<td>(-6.537)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Age</td>
<td>.005***</td>
<td>- .004**</td>
<td>.002</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3.682)</td>
<td>(-2.435)</td>
<td>(1.786)</td>
<td></td>
</tr>
<tr>
<td>(4) Education</td>
<td>- .024*</td>
<td>- .050***</td>
<td>- .014*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-2.422)</td>
<td>(-4.375)</td>
<td>(-2.096)</td>
<td></td>
</tr>
<tr>
<td>(5) &quot;I keep my emotions to myself.&quot;</td>
<td></td>
<td>.151***</td>
<td>.000\textsuperscript{c}</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(5.838)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{a}EQS Model (Bentler 1989): \(N = 2,019\); \(\chi^2 = 30.204\); d.f. = 28; \(p = .354\); normed fit = .994; nonnormed fit = .999; comparative fit = 1.000. This model meets the criteria that (a) all of the coefficients have a two-tailed \(p\)-value of .10 or less and that (b) a Lagrange multiplier test indicates the overall fit cannot be improved by freeing any of the parameters fixed to 0, +1, or -1.

\textsuperscript{b}The depression and expression factors are both indicated by three reports of sadness and three reports of happiness. Table 2b details the measurement model.

\textsuperscript{c}The parameter is fixed to zero. When freed it is not significantly different from zero.

\textit{Note:} Numbers in parentheses are \(t\)-values.

Table 2b. Metric Factor Loadings for the Detailed Crosscutting Factor Model of Sex Differences in Depression and Emotional Expressiveness: U.S. Men and Women Ages 18 to 19, 1990

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Blue</th>
<th>Lonely</th>
<th>Sad</th>
<th>Happy</th>
<th>Enjoy Life</th>
<th>Hopeful</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Depression factor</td>
<td>.943***</td>
<td>1.00\textsuperscript{a}</td>
<td>1.00\textsuperscript{a}</td>
<td>-1.134***</td>
<td>-1.00\textsuperscript{a}</td>
<td>-1.00\textsuperscript{a}</td>
</tr>
<tr>
<td></td>
<td>(38.517)</td>
<td></td>
<td></td>
<td>(-37.825)</td>
<td>(-4.470)</td>
<td></td>
</tr>
<tr>
<td>(2) Expression factor</td>
<td>1.00\textsuperscript{a}</td>
<td>1.00\textsuperscript{a}</td>
<td>1.300</td>
<td>1.00\textsuperscript{a}</td>
<td>1.00\textsuperscript{a}</td>
<td>1.475</td>
</tr>
<tr>
<td></td>
<td>(16.708)</td>
<td>(3.856)</td>
<td></td>
<td></td>
<td></td>
<td>(14.481)</td>
</tr>
<tr>
<td>(3) Female</td>
<td>-.122</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-2.130)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Marriage</td>
<td>-.306</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-5.255)</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>(5) Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.008</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(3.901)</td>
<td></td>
</tr>
<tr>
<td>(6) Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.051</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(3.275)</td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{a}Coefficients without \(t\)-values are fixed to the values shown. Blanks represent coefficients fixed to zero.

\textit{Note:} A \(t\)-value in parentheses (\(t\)) measures the coefficient's standard-error distance from 0; A \(t\)-value in brackets \(\{t\}\) measures its standard-error distance from the theoretical metric loading of +1 or -1.
Figure 3. Detailed Crosscutting Factor Model

* Women are more expressive than men but also more depressed (standardized coefficients). Table 2 gives the fit statistics and metric coefficients.

Note: All coefficients are significant at \( p < .05 \) or better, except for the direct effect of age on the expression factor. Dashed lines represent direct effects of exogenous variables on indicators net of their factors.

**Analysis 2: “Masculine” and “Feminine” Types of Distress**

Surveys might give a false impression by asking mostly about feminine types of distress. The analyses up to this point have concentrated on feelings of depression. By that measure women exhibit more distress than men. Does the relationship hold for more “masculine” forms of distress? The escalating anger model and the hierarchical distress model address this question.

**Sex and escalating anger.** Do women get depressed and men get angry? Gendered-response theory suggests that the answer is yes, but our data indicate that the answer is no. Figure 4 and Table 3 show the escalating anger model. Three reports indicate the level of anger: feeling annoyed with things or people, feeling angry, and yelling at someone. These indicators form a progression of escalating anger. The pattern of covariances among the indicators and between them and other variables mixes aspects of a latent factor with those of a Guttman scale. Loadings on the anger factor represent the former, and the sequential direct effects represent the latter. Yelling at someone is the highest expression of anger on the scale, because it crosses the line from emotion to behavior. The results show that women are angrier than men and are more likely to express their anger by yelling.

Anger has another thing in common with depression, in addition to showing higher levels among women than among men: People who say they keep emotions to themselves report feeling angry more frequently than
Female

"I keep my emotions to myself."

Yelled

Angry

Annoyed

Figure 4. Escalating Anger Model

*Women are angrier than men and yell more than men who are equally angry (standardized coefficients). Table 3 gives the fit statistics and metric coefficients.

Note: All coefficients are significant at p < .05 or better. Dashed lines represent direct effects of exogenous variables on indicators net of their factors.

A simple but important result underlies the hierarchical factor model: Various measures of distress are positively correlated with each other. Depression, anxiety, anger, and physical symptoms correlate positively and significantly. Positive mood correlates negatively with all psychophysiological measures of distress. Thus, people who feel sad, for example, also tend to feel unhappy, anxious, angry, depleted, and ill.

Analysis 3: Adjusted Regressions

Response bias and gendered response. Response-bias theory implies that adjusting for emotional reserve and expression will eliminate or greatly reduce the estimated effect of sex on levels of distress. Table 4 shows six sets of regressions. The first in each set regresses an index of distress on sex adjusting for age, minority status, marital status, and education. The second adjusts also for the expression index (Expression = (Sadness +
**SEX DIFFERENCES IN DISTRESS**

Table 3. Metric Regression Coefficients and Factor Loadings for the Escalating-Factor Model Testing Sex Differences in Anger: U.S. Men and Women Ages 18 to 90

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variables</th>
<th>Anger Factor</th>
<th>Annoyed</th>
<th>Angry</th>
<th>Yelled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td></td>
<td>.146**</td>
<td></td>
<td>.534***</td>
<td>(2.844)</td>
</tr>
<tr>
<td>Marriage</td>
<td></td>
<td></td>
<td></td>
<td>.358***</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td>-.021***</td>
<td></td>
<td></td>
<td>(-8.774)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td>-.070***</td>
<td></td>
</tr>
<tr>
<td>&quot;I keep emotions to myself.&quot;</td>
<td></td>
<td>.050**</td>
<td></td>
<td></td>
<td>(2.513)</td>
</tr>
<tr>
<td>Anger factor</td>
<td></td>
<td>1.817***</td>
<td>1.000b</td>
<td>1.000b</td>
<td>(7.372)</td>
</tr>
<tr>
<td>Annoyed</td>
<td></td>
<td></td>
<td>.305***</td>
<td></td>
<td>(8.597)</td>
</tr>
<tr>
<td>Angry</td>
<td></td>
<td></td>
<td></td>
<td>.374***</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05  **p < .01  ***p < .001 (two-tailed tests)

*EQS Model (Bentler 1989): N = 2,031; \( \chi^2 = 11.557; \) d.f. = 10; \( p = .316; \) normed fit = .994; nonnormed fit = .998; comparative fit = .999. This model meets the criteria that (a) all of the coefficients have two-tailed \( p \)-values of .10 or less and that (b) a Lagrange multiplier test indicates the overall fit cannot be improved by freeing any of the parameters fixed to 0, +1, or -1. The table does not show the regression of keeping emotions to oneself because it is the same as in the first column in Table 2a.

* Coefficients without t-values are fixed to the values shown. Blanks represent coefficients fixed to zero.

*Note: A t-value in parentheses (t) measures the coefficient’s standard-error distance from 0; A t-value in brackets (t) measures its standard-error distance from the theoretical metric loading of +1.

**Happiness**/2, and the third adds adjustment for keeping emotions to oneself. The first row of Table 4 shows the metric effect of being female on each type of distress, first without and then with the adjustments for expressiveness and reserve. For the five negative emotions the effect of sex gets smaller with adjustment for the expression index, but it gets larger with adjustment for emotional reserve. Only the effect of being female on sadness is smaller with the two adjustments than without them, but still it remains quite significant. For happiness, the effect of sex changes sign when adjustment for the expression index is added, from positive but very nonsignificant to negative and nearly significant for a two-tailed test (or significant for a one-tailed test; \( t = -1.937 \)). The negative effect of being female on happiness becomes more negative and more statistically significant with the added adjustment for keeping emotions to oneself. Overall, the regressions show that, adjusting for expressiveness, women are more distressed than men on all six measures, and that adjusting for reserve increases the estimated differences.

Gendered-response theory has implied that women’s distress would most exceed men’s when measured as sadness and unhappiness and least when measured as anger. Our regressions show just the opposite. Sex differences are smallest for sadness and happiness, and the sex difference in anger is twice as large as that for sadness and happiness. Sex has its largest metric effect on anxiety. In terms of days per symptom per week, the gender gap in anxiety and anger far exceeds that in sadness and unhappiness.
Relative frequency of distress. How large is the effect of sex on the frequency of distress? Statistically, the metric coefficients in Table 4 are quite significant. But do they represent a major increment in the burden of distress for women as compared to men? The standardized effect on distress of being female shown in Figure 5 is .075, which seems small. However, the size of the standardized coefficient is deceptive for two reasons. First, dichotomous variables tend to have small standardized coefficients for purely technical reasons: Standardized coefficients shrink as the number of possible values decreases, and two (male or female) is the smallest number possible for a variable. Second, large variances in distress among persons of the same sex diminishes the standardized effect of sex, even if the average difference between men and women is substantial. (As an example of the principle, in these data minority status has a standardized effect on family income of -.089, which means it explains only 0.8 percent of the variance in income. However, minority families get 15.7 percent less income—an average of $6,224 less per year. That is a substantial sum of money even though it is small compared to the standard deviation of $26,380 within groups.)

A measure of relative frequency shows that women experience symptoms of distress roughly 30 percent more often than men. Taking the regression coefficient for sex as a percentage of the mean symptom score among men shows roughly the percentage increase in the frequency of symptoms for women as compared to men. For example, Table 4 shows that the adjusted effect of being female on the frequency of sadness is .198. The mean frequency of sadness for men is .680 days per symptom per week. Thus,
Table 4. Metric Coefficients for the Regression of Six Indexes of Distress on Sex and Sociodemographic Variables, without and with Adjustment for Expressiveness and Emotional Reserve: U.S. Men and Women Ages 18 to 90, 1990

| Independent Variables | Sadness | | | | | Happiness | | | | | Anger | | |
|-----------------------|---------|-----------------|---------|-----------------|---------|-----------------|---------|-----------------|---------|-----------------|---------|-----------------|---------|-----------------|---------|-----------------|
|                       | Model 1 | Model 2 | Model 3 | Model 1 | Model 2 | Model 3 | Model 1 | Model 2 | Model 3 | Model 1 | Model 2 | Model 3 | Model 1 | Model 2 | Model 3 | Model 1 | Model 2 | Model 3 |
| Female                | .234*** | .127*  | .198*** | .048    | -.118* | -.188** | .387*** | .337*** | .413*** | (3.447) | (2.076) | (3.153) |
| Age                   | -.002   | -.005**| -.005**| .009*** | .005** | .006***| -.033***| -.033***| .034*** | (-960)  | (-2.582)| (-3.021) |
| Minority              | .073    | .022   | .030    | .069    | -.010  | -.018  | .090    | .086    | .090    | (.833)  | (.275)  | (.378)  |
| Married               | -.527***| -.497***| -.458***| .446*** | .492***| .452***| .004    | .007    | .027    | (-7.776)| (-8.154)| (-7.516)| (5.870) | (8.141)| (7.485)| (.058) | (.095) | (.370)|
| Education             | -.067***| -.064***| -.060***| .059*** | .064***| .061***| -.015   | -.014   | -.013   | (-5.214)| (-5.501)| (-5.222)| (4.076) | (5.584)| (5.298)| (-1.049)| (-1.025)| (-.891)|
| Expression Index      | .785*** | .784***| 1.220***| .742*** | 1.221***| .782***| .073*   | .073*   | .077*   | (21.788)| (21.924)| (34.175)| (34.475)| (1.687)| (1.675)| (.562) | (.585) | (.243)|
|                       | .149*** | (-.582) | -.539***| -.577***| (-.585) | .005** | .017   | .017   | .005*** | (.562)  | (.562)  | (.562)  | (.017)  | (.017) | (.005) | (.005) | (.005) | (.005) |
| Intercept             | 1.960   | -.518  | -.623   | .432    | .475   | .582   | 3.000   | 2.769   | 2.715   | (.053)  | (.234)  | (.246)  | (.032)  | (.388) | (.398) | (.117) | (.118) | (.121)|
| R²                    | .053    | .234   | .246    | .032    | .388   | .398   | .117    | .118    | .121    | (.045)  | (.055)  | (.062)  | (.065)  | (.072) | (.080) | (.065) | (.069) | (.070)|

*p < .05  **p < .01  ***p < .001 (2-tailed tests)
*p < .05 (one-tailed tests)

Note: Numbers in parentheses are t-values.
adjusting for emotional reserve and expressiveness, women are sad about 29.1 percent more frequently than men (100F/198.680 = 29.1). The outline below shows the adjusted rate fractions (as subscripts) for the six indexes in Table 4 and for the composite indexes that represent higher-order factors up to the level of general distress (see Figure 5).

<table>
<thead>
<tr>
<th>Distress</th>
<th>Emotional Distress</th>
<th>Depression</th>
<th>Sadness</th>
<th>Happiness</th>
<th>Agitation</th>
<th>Anger</th>
<th>Anxiety</th>
<th>Physical Distress</th>
<th>Malaïse</th>
<th>Aches</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.4%</td>
<td>25.7%</td>
<td>19.8%</td>
<td>29.1%</td>
<td>-3.3%</td>
<td>29.5%</td>
<td>28.7%</td>
<td>30.5%</td>
<td>36.6%</td>
<td>37.6%</td>
<td>35.2%</td>
</tr>
</tbody>
</table>

In proportional terms, the smallest difference is for happiness, which is about 3.3 percent less common for women than for men. (Put the other way, not feeling happy is about 15.4 percent more common for women than for men). The largest difference is for malaïse, which occurs 37.6 percent more frequently for women than for men. Women report feeling angry about 28.7 percent more frequently than men. Women’s risk as a fraction of men’s is greater for agitation than for depression, and it is greater for physical distress than for emotional distress. At the highest level of generality, the symptoms of distress we measure occur 29.4 percent more frequently for women than for men.

**DISCUSSION**

**Response Bias**

For two decades researchers have debated whether sex differences in reported psycho-physiological distress are real or an artifact of differences in the expression of emotions (Cooperstock and Parnell 1975; Gove 1993; Gove and Clancy 1975; Ritchey et al. 1993; Seiler 1975). Most available evidence indicates that sex differences in distress are not due to reporting tendencies. In some cases the response tendency is not correlated with distress, and in others it is not correlated with sex or is correlated in the wrong direction (Clancy and Gove 1974; Gove and Geerken 1977; Gove, McCorkel, Fain, and Hughes 1976; Ross and Mirowsky 1984). However, few studies examine all the links necessary to determine whether response tendencies bias the observed association between sex and distress. Furthermore, previous studies measure tendencies such as yea-saying and giving socially desirable responses that do not appear to represent expressiveness. Some researchers still maintain that sex differences in distress are due to reporting differences. For instance, a recent study of the homeless interpreted the higher reports of physical and psychological symptoms by the women as due to a “tendency for women to perceive and report symptoms more freely and for men to underreport” (Ritchey et al. 1991:45).

The response-bias hypothesis makes three claims: (1) that women express their emotions more freely than men, (2) that expressiveness increases the reporting of symptoms, and (3) that adjusting for expressiveness eliminates the association between sex and distress. Our results support the first proposition—that women are more expressive than men. Women score higher on both indicators of potential response bias: the unobtrusive sum of both positive and negative mood and disagreement with the self-evident statement that, “I keep my emotions to myself.” Our results support the second claim for the unobtrusive expression factor but not for the direct question about emotional reserve. Scores on all six indexes increase with the expression factor (although not quite significantly for anger), but they also increase the more that respondents claim to keep emotions to themselves. Our results contradict the third proposition for both measures. The estimated effect of sex on the measures of negative mood remains quite significant after adjusting for the expression of positive and negative mood. And adjusting for self-reported reserve actually increases the estimated effect of sex on all six measures.

The increment in the crude mean for females: Sadness = .680 + .238F; Happiness = 5.783 + .062F; Anger = 1.441 + .309F; Anxiety = 2.052 + .550F; Malaïse = .869 + .313F; Aches = .844 + .330F. The bivariate coefficients of sex are significant at \( p < .001 \) (two-tailed test) for the five negative emotions. The unadjusted difference in Happiness scores is not significant (\( t = .802 \).
Broadly speaking, the effect of sex on measures of distress diminishes somewhat with adjustment for emotional expression, but it does not vanish.

Reserve and expressiveness are distinct traits with distinct relationships to measures of distress, although women are more expressive than men by both standards. As a measure, asking people if they keep emotions to themselves has the advantage of simplicity and directness. However, people who say they keep emotions to themselves actually report more symptoms than others, not fewer. The expression factor that crosses the depression factor behaves more as one would expect of a measure of emotional expressiveness. By definition the expression factor increases the reported frequency of both positive and negative mood. The expression factor also increases the reported frequency of anger, anxiety, malaise, and aches (although the anger coefficient was not significant in the hierarchical factor model). Interestingly, the covariance structure models indicate that self-evaluated reserve does not significantly affect the unobtrusive expression factor. Regardless of which is a better measure, neither reserve nor expressiveness explains the observed sex difference in distress.

**Masculine and Feminine Distress**

Freudian ideas about the psychodynamics of depression, coupled with contemporary ideas about sex-role socialization, suggest the possibility of gendered response to stress (Rosenfield 1980). According to the theory, frustration naturally produces hostility and anger. However, women learn to repress those feelings as they are contrary to nurturing and supportive feminine roles. Repressing hostility and anger toward others redirects punishment inward, producing depression. If true, this dynamic raises the possibility that men and women differ only in the type of distress and not in the amount of it. In theory, men become angry; women become depressed. In fact, women become angry as well as depressed. Depression is anger’s companion: not its substitute.

The gendered-response explanation of women’s greater reported distress assumes three things that all appear to be false. First, the explanation assumes that the recognition and expression of one’s anger reduces depression. However, our results show that sadness, malaise, and the other indexes of distress all correlate positively with reported anger, not negatively. The hierarchical factor model shows that anger can be viewed as one manifestation of distress on a par with sadness, unhappiness, anxiety, malaise and aches. Second, the gendered-response view assumes that women feel less angry toward others than do men. On the contrary, our results show that women feel more angry toward others. Thus, our results confirm those of earlier studies showing that women report greater anger, hostility, and manifest irritation than do men (Conger et al. 1993; Frank, Carpenter, and Kupfer 1988; Gove 1978). Third, it assumes that women feel less angry toward others than men at any given level of distress. However, the hierarchical factor model shows that women are more agitated than men experiencing similar levels of emotional distress, which means that women are more angry and more anxious than men who are equally depressed. Similarly, the escalating anger model shows that women are more likely to yell at someone than men who are equally angry. Thus, our results contradict the idea that men and women suffer equal frustration but transform it into different emotions. By all our measures, women suffer more distress than men.

**Related Issues**

**Alcoholism, Drug Abuse, and Antisocial Behavior.** Our analysis examines sex differences in distress. A focus on misery and suffering seems justified on its own, without reference to other values. It is worse to feel distressed, sad, lonely, worried, tense, anxious, angry, annoyed, run down, and unable to concentrate or to sleep than to feel happy, hopeful about the future, and to enjoy life. However, disorder may take behavioral forms as well as emotional ones. The distinction raises the possibility that gendered responses may occur across realms of disorder, even though they do not occur within the emotional realm (Horowitz and White 1987). In other words, women and men may experience equal levels of frustration and hardship that produce emotional problems in women and behavioral problems in men.
lar, surveys of the general population find that women qualify for psychiatric diagnoses of affective disorders more frequently than men, whereas men qualify for diagnoses of alcoholism and drug abuse more frequently than women (Aneshensel, Rutter, and Lach- enbruch 1991). Gove and Tudor (1977) argue that symptoms or diagnoses from different realms should not be combined—that they represent inherently distinct phenomena that may be interrelated but should not be confounded. Indeed, research shows that some stressors associated with depression and anxiety differ from those associated with alcoholism and drug abuse (Aneshensel et al. 1991). However, the possibility remains that women feel more distressed than men because the men transform their frustrations into behavioral disorder.

The possibility of cross-realm gendered responses extends to a broader arena the question addressed in our analysis. Do women merely appear more distressed than men because the men convert distress into other realms of disorder? This question is beyond the scope of the data analyzed here, but conceptual distinctions and empirical observations suggest that the answer is no. Conceptually, problems like alcoholism, drug abuse, and antisocial behavior are not in themselves distress. If men escape distress by that route then the sex difference in distress is genuine, not false. Empirically, though, alcoholism, drug abuse, and antisocial behavior probably produce more distress than they avoid. If men were not as inclined toward behavioral disorder, the gender gap in distress might be even larger.

What pacifier for frustration not included in our study might possibly explain men’s lower distress? Alcoholism and drug abuse are the chief candidates. Clearly, men drink more heavily and use illegal drugs more frequently than women. However, women actually may depend on drugs for emotional relief more frequently than men. Women use prescribed psychoactive drugs far more than men—over one woman in 5 compared to less than one man in 10 (Verbrugge 1985). The fact that women use psychoactive drugs on the advice of their doctors, whereas men use psychoactive drugs on their own authority, is a legal distinction. It makes it appear that men have more problems with psychoactive drugs even if women use them more often.

It is uncertain whether men use drugs to cope more frequently than women do. It is clear that alcoholism and drug abuse are temporary and counterproductive escapes at best. For cross-realm gendered response to explain women’s greater distress, some behavioral disorder characteristic of men must reduce distress. If the disorder does not lower distress, then it cannot account for lower male levels of distress. On this count, there seems little or no support for such a cross-realm gendered response. For the most part, studies find that distress increases with increased levels of antisocial behavior, alcoholism, and drug abuse, which are the main problems found more commonly in men than in women (Boyd et al. 1984; Dohrenwend, Dohrenwend, Shrout, Egri, and Mendelsohn 1980; Endicott and Spitzer 1972). Alcoholism, drug abuse, and antisocial personality multiply the odds of a major depressive episode by 4.1, 4.2, and 5.1 respectively (Boyd et al. 1984). In sum, there is no evidence that men’s use of alcohol or illegal drugs explains men’s lower distress levels as an artifact of sex differences in the expression of problems. Heavy drinking and drug abuse probably do not protect men from feeling distressed.

Isolation and guilt. Our review of the literature finds a few instances in which men score higher than women on something viewed as a sign of distress. A study of symptoms in the Center for Epidemiologic Studies’ Depression scale (CES-D) finds that married men report 42.6 percent more days than their wives of feeling disliked and that people are unfriendly (Ross and Mro- wsky 1984). There is no evidence that these perceptions protect men against other forms of depression. A subindex of the two items correlates +.39 with depressed affect for the men and +.36 for the women (.59 and .52 respectively corrected for attenuation). Despite feeling disliked more often, husbands report feeling lonely and depressed less frequently than do their wives. A study of symptoms in the Psychiatric Evaluation Research Interview (PERI) finds that more men than women say they have done something wrong or evil and deserve to be punished (Newmann 1984). Despite
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that self judgement, the men feel less sad and depressed than the women. Perhaps, as equity theory says, the guilt of the advantaged is not as bad as the misery of the disadvantaged (Mirowsky and Ross 1985). Men report feeling disliked and guilty more than do women. Were it not for men feeling disliked and guilty, the effect of sex on depression would be even greater than it is.

Conclusion

We find that women experience distress about 30 percent more frequently than men. Women’s extra burden of distress cannot be dismissed as mere bias due to greater expressiveness or to a “feminine” rather than “masculine” emotional response.

John Mirowsky is Professor of Sociology at The Ohio State University. He is co-author, with Catherine E. Ross, of Social Causes of Psychological Distress (Aldine de Gruyter, 1989). He is principal investigator on a grant from NIA, “Aging, Status, and the Sense of Control,” for which Catherine Ross is co-principal investigator. Currently he is researching the effects of age on depression, anxiety, fear, mistrust, and the sense of control.

Catherine E. Ross is Professor of Sociology at The Ohio State University. She is studying the effects of work and family on men’s and women’s sense of control, health, and mental health. Her latest research examines socioeconomic status and health, with a focus on the processes by which educational attainment affects health. She is principal investigator on a grant from NIMH, “Community, Crime, and Health,” which will examine the ways in which neighborhood affects subjective well-being.

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