

## Toward a Reconsideration of the Gender-Emotion Relationship

MARIANNE LAFRANCE  
MAHZARIN BANAJI

---

**Marianne LaFrance** is Professor of Psychology at Boston College. She has been a visiting faculty fellow at Yale University, the University of California at San Francisco, and Radcliffe College. Her research is concerned with gender, nonverbal communication, tacit knowledge, and the relationship between language and social cognition.

**Mahzarin Banaji** is Assistant Professor of Psychology at Yale University. Her research interests concern affect, self, attitudes, stereotyping, and research methodology.

---

Declarations about how women and men differ emotionally abound in the psychological literature. They can be found in the Parsonian normative construction of family roles, with women described as the "expressive" experts and men as the "instrumental" experts (Parsons & Bales, 1955). They are manifest in measures of gender role identification, where emotion items constitute the key components of identification with the feminine and not masculine sex role (Constantinople, 1973). Emotionality also features prominently in the content of gender stereotypes with at least 75% agreement among subjects (both female and male) that the labels "very emotional" and "very aware of feelings of others" were seen to be more characteristic of females than males (Broverman, Vogel, Broverman, Clarkson, & Rosenkrantz, 1972). A converging result emerges strikingly in Shields's (1987) finding that more than 80% of males and females mention a female target when asked to name the most emotional person they know. Additionally, social pressures tend to facilitate emotionality in mothers as compared with fathers (Shields & Koster, 1989), and clinical thinking about gender underscores females' apparent greater access to their emotions (Chodorow, 1980).

Perhaps because the belief in gender differences in emotionality is so pervasive and perennial, it has tended to mask the complexity of defining what it means to be emotional. That is, how should investigators reach the conclusion that women are more emotional than men or,

alternatively, that men are less emotional than women? Research has called upon several modalities of expression to provide information about variability in emotionality, including verbal self-report, nonverbal expressivity, and physiological reactivity. Further, within each modality of expression, there are arrays of measures including emotional intensity, frequency, duration, range, latency, accuracy, and congruence across modalities and measures.

The absence of a single measure of emotion makes the gender-emotion relationship a complicated one. For example, if males report less emotion than females on a self-report measure, should that constitute sufficient evidence of lower emotionality? Further, if gender differences found on self-report measures are absent or reversed on nonverbal or physiological measures, which should be considered the more legitimate measure of emotionality? If gender differences emerge in some contexts and not in others (e.g., public versus private), is an explanation based on basic group differences sufficient or is it necessary to invoke the role of situational influences in explaining gender differences in the expression of emotion?

The purpose of this chapter is twofold: first, to reexamine the gender-emotion relationship with a particular focus on the benchmarks used to assess emotionality and, second, to identify the circumstances under which differences in emotionality are likely to be manifest or absent. This review focuses attention on research primarily published in the 1980s (although a few pertinent earlier studies are included). See excellent articles by Brody (1985) and Shields (1987) that review earlier research. Moreover, this review concentrates on adult populations. For a development perspective, see Brody (1985).

The reexamination is organized into three sections, each representing a prominent modality through which emotionality is believed to be manifest. These three modalities are not merely alternative ways of measuring the same underlying construct. Indeed, investigators of emotion are agreed that emotionality is a multidimensional construct and the three modalities are necessary for an adequate understanding of individual variability. We begin by reviewing research on gender and emotionality that focuses on the phenomenal experience of emotion, the data being obtained primarily through verbal self-report measures. Next, we turn to research that assesses the role of gender in nonverbal expressivity, with facial expressivity providing the primary data. Finally, we review research that compares how females and males react

physiologically to emotional situations. As will become apparent, there are proportionately more studies that use self-report measures to assess emotionality. Thus the greater amount of the chapter devoted to self-report measures is a reflection of the state of the investigations undertaken.

### SELF-REPORT OF EMOTIONALITY

As indicated, verbal self-report indicators of emotionality constitute much of the literature addressing the gender-emotionality relationship. But self-report measures themselves vary in a number of significant ways, and the dimensions along which they differ are critical to understanding how to interpret the results issuing from these indicators. We propose a four-dimensional scheme for characterizing self-reports of emotionality. Specifically, self-reports of emotionality vary in directness (e.g., is the measure a direct probe, such as "how emotional are you?" or is the measure derived from subjects' verbal data, such as the number of emotion words produced?). Second, self-reports vary in whether the experience being reported can be perceived by observers (e.g., does the self-report focus on private, subjective states or on public display?). Third, self-report measures vary in terms of whether the context surrounding the emotional event is included (e.g., does the measure differentiate between interpersonal and impersonal elicitors and/or outcomes of emotion?). Finally, self-reports vary in the specificity of the emotion being probed (e.g., does the measure ask about general emotionality or discrete emotional states?).

The four dimensions of self-report measures are conceptually distinguishable even though in research practice they are not often separated. In this chapter, they serve two objectives. First, these dimensions constitute a useful way to organize and interpret a complex set of findings. Second, a consideration of these dimensions suggests hypotheses to test in future examinations of gender and emotion. In particular, we encourage examination of the following questions: Are gender differences more likely to occur when the measurement is direct rather than indirect, when the domain is public rather than private, when the context is interpersonal rather than impersonal, and when the assessment is of global emotionality rather than of discrete emotional states?

### Direct Versus Indirect Self-Reports

The direct-indirect dimension refers to the degree to which the data provided by the subject are used directly, that is, without transformation by the investigator. For example, on a direct measure, subjects may be asked to indicate how emotional, how angry, or how happy they feel. Subjects' rated judgments of their subjective emotional states serve as the data. In addition to obtaining such measures in laboratory research, several personality measures of emotion also use direct self-report such as the Affect Intensity Measure (AIM; Larsen & Diener, 1987), the Affective Communication Test (ACT; Friedman, Prince, Riggio, & DiMatteo, 1980), and the Emotional Expressiveness Questionnaire (EEQ; King & Emmons, 1990). For each scale, a score is derived by summing across multiple items that ask subjects to report how much emotion they feel or express to others.

In contrast, indirect self-report measures also require subjects to generate a verbal self-report but the final emotion score is derived or extracted from subjects' responses. For example, an open-ended verbalization could be coded for incidence of emotion words to derive an indirect index of emotionality. Or an investigator could compute the degree to which the subject spoke about an emotional incident in the past or present tense with theory dictating that the former represents greater emotional "distance" than the latter (Lutz, 1990). Other examples of indirect measures include those that extract information about emotionality from self-descriptions (Mackie, 1980) or from a test of memory for emotional information (Banaji, Greenwald, & Bellezza, 1985). Such indirect measures assume that greater use of emotion terms or better memory for emotional words reveals greater emotionality.

The vast majority of studies of gender and emotion use direct self-report measures. Recent studies in this genre find gender differences, with females reporting greater emotionality than males (see Balswick, 1988), confirming early declarations by Terman and Miles (1936). In addition, assessments of stable individual differences in emotionality are almost without exception direct measures. These include efforts to measure the frequency with which one experiences a range of mood states (McNair, Lorr, & Droppleman, 1981), the stability of emotional dispositions (Spielberger et al., 1979), or the intensity of affect (Larsen & Diener, 1987). These direct measures find that females report greater emotion

than males. For example, on the Affective Intensity Measure (AIM), respondents indicate their agreement with such items as this one: "My emotions tend to be more intense than those of most people." On this 40-item questionnaire, females have been found to score higher than males (Diener, Sandvik, & Larsen, 1985).

When indirect self-report measures of emotion are used, the results are much less likely to yield clear and reliable gender differences. For example, in content analyses of subjects' memories about valued possessions, Banaji and LaFrance (1989) found that male and female subjects did not differ in the use of emotion terms (e.g., love, anger), even though females did use more evaluative words (e.g., like, dislike) than males (see Shimanoff, 1983). Other studies using indirect measures have also failed to find gender differences. For example, no gender differences were found when males and females were asked to rate the intensity of 102 positive and negative adjectives drawn from the Depression Adjective Checklist (Lubin, Rinck, & Collins, 1986), when dream diaries were analyzed for emotion content (Stairs & Blick, 1979), when emotional reactions to film segments were coded (McHugo, Smith, & Lanzetta, 1982), or when interpersonal verbs were rated for their degree of similarity (Wier, Phillips, & Stanners, 1987).

Likewise, no gender differences were found when subjects' verbalizations about specific emotional experiences were content analyzed (Lutz, 1990). In this study, descriptions by females and males of recent emotional experiences were coded for the degree to which they "personalized" the emotional experience. One indicator involved the degree to which the respondent distanced the experience from self, such as by using the past or conditional tense or by identifying another as experiencing the emotion. Results showed no differences between male and female speakers in the use of verb tense or in the tendency to focus on the self or another as the experiencer of the emotion. Also, males and females were not distinguishable in terms of the degree to which they negated or denied experiencing emotional states. Shimanoff (1983) also found few gender differences in the incidence of emotion language in natural conversations of both college students and married couples, and Campbell and Muncer (1987) noted few gender differences in talk about anger incidents. It appears that gender differences in emotionality are more likely to emerge depending on whether the self-report is direct rather than indirect.

### Public Versus Private Self-Reports

Self-report measures also differ in the degree to which the self-report refers to a private, subjective state or to a public display. At one end of this dimension, for example, are self-reports about privately experienced feelings (e.g., "I feel things more deeply than most people"). At the other end of the dimension are self-reports concerning an overt expression of emotion (e.g., "Most people can tell what I am feeling"). Although both responses represent subjects' beliefs about their emotionality, they differ in the degree to which the report emphasized the private, subjective experience of emotion or the public, communicative aspect of emotion.

Several measures include the public-private dimension of self-reported expression of emotion. They include the Affective Intensity Measure (AIM; Diener et al., 1985) and the Emotional Expressiveness Questionnaire (EEQ; King & Emmons, 1990), and females have been found to score higher than males on both. Although EEQ was designed to measure self-reported expressivity (e.g., "People can tell from my facial expressions how I am feeling"), whereas AIM was designed to tap differences in felt affective intensity, King and Emmons (1990) found EEQ to be significantly and positively correlated with AIM. Thus the possibility exists that AIM assesses not only intensity of felt affect but also intensity of expressed affect. The distinction is important for there is the possibility that overt expression may be somewhat independent of subjective experience, in the sense that there can be both subjective experience without overt expression and overt expression without subjective experience. To the degree to which there is some independence, then self-report measures of emotionality that draw on assessments of expressivity may be amiss in concluding that presence of one aspect, namely, expressivity, is evidence for a presumed difference in another key aspect, namely, subjective experience.

Indeed, the strongest evidence of gender differences in emotionality occurs on self-report measures of expressivity rather than self-reports of subjective experience (Dosser, Balswick, & Halverson, 1983; King & Emmons, 1990; Schenk & Heinisch, 1986; Zuckerman, 1989). An investigation of student populations from several Western European countries and Israel found that females more than males self-reported greater nonverbal expressivity, especially facial reactions, on four emotions (joy, sadness, fear, anger; Wallbott, Ricci-Bitti, & Banninger-Huber,

1986). There were no comparable gender differences on self-reported physiological symptoms, although males reported more unspecified sensations. The authors propose that the greater self-report of expressivity by females than males may be a product of gender-specific display rules that encourage females to be more nonverbally expressive than males. Further evidence for this assertion comes from a recent study in which male and female subjects completed the Differential Emotions Scale under conditions varying in anonymity. Females who were publicly identified scored higher than anonymous females on positive emotions and lower on negative emotions. Males in anonymous conditions scored lower on all emotions than males in identified conditions (O'Grady & Janda, 1989).

Few self-report studies have incorporated an explicit test of the conditions that may or may not generate gender differences. A notable exception is an investigation that combined self-report of private, emotional experience and of public, expressive display (Allen & Haccoun, 1976). Both aspects of emotion were investigated with respect to anger, fear, joy, and sadness. Male and female subjects were surveyed for the degree of self-reported emotional *responsiveness* (e.g., how frequently and intensely each emotion was felt), *expressiveness* (the degree to which the emotion expressed feelings to same- or opposite-sex others), *orientation* (attitudes toward feeling each emotion and about others' emotional expressions), and *social situations* (interpersonal or impersonal situations that lead to each emotion).

On self-reports of public display, females reported being more expressive than males on all four emotions. But, on self-reports of private experience, females scored higher than males only on fear and sadness. Moreover, no gender differences emerged on self-reported orientation toward feeling and perceiving each emotion in others, except for females' somewhat greater positive orientation toward feeling joy. Thus the most unqualified results concerned the greater tendency of females to report being more publicly expressive than males. On measures of private experience, no consistent gender differences emerged.

Other studies have addressed self-reported gender differences in this public aspect of emotionality. For example, when males and females were asked to report on their willingness to reveal their emotional state to others, females reported greater emotional disclosure to others than males (Papirini, Farmer, Clark, & Micka, 1990). In a comparable fashion, results from a study in which college students were asked to indicate their

willingness to discuss their emotions with others showed that females, compared with males, indicated more willingness to communicate feelings of depression, happiness, anger, calmness, and fear (Snell, Miller, Belk, Garcia-Falconi, & Hernandez-Sanchez, 1989). Thomas (1989) also found that females say they are more likely than males to discuss feelings of anger with others.

### Interpersonal Versus Impersonal Self-Reports

A third dimension along which self-report measures may be differentiated involves the interpersonal versus impersonal context of the emotional response. This includes both the nature of the eliciting conditions as well as the aftermath of the emotional event. With respect to eliciting conditions, respondents might be asked to recall whether specific others evoked an emotional state (interpersonal) or whether the emotion arose from events not necessarily involving others (impersonal).

As there has been relatively little investigation of differences in self-reports regarding elicitors of emotion, a study by Stapley and Haviland (1989) is particularly informative. Adolescent subjects responded to the Elicitors of Emotion Questionnaire (Stapley & Haviland, 1986) about the frequency, intensity, and duration of their experiences of 12 emotions. The study found that females reported more social elicitors to their emotional experiences than males. Moreover, subjects who invoked more interpersonal antecedents also reported a longer duration of the emotional experience and higher average intensity of emotion and produced longer verbal accounts. These findings match those of Allen and Haccoun (1976), who found that although females reported proportionally more interpersonal elicitors than males, there were no gender differences with respect to impersonal elicitors. Note, however, that Phillips and Whissell (1986) failed to find gender differences on emotional elicitors with younger children (6-13 years of age), suggesting that attending to interpersonal elicitors may be a learned behavior, expected more of females than males.

Paralleling the paucity of research on gender effects on the elicitors of emotions is the equally sparse research on self-reported aftermath to emotional states. Nolen-Hoeksema (1987) argued that, in response to depression, men are more likely to engage in distracting behaviors whereas women are more likely to amplify the feeling by ruminating on it. Other research supports the finding that depressed female college

students are more likely to respond with more obvious emotional manifestations (e.g., guilt, sadness), while depressed male college students are more likely to report social withdrawal (Hammen & Peters, 1977; Oliver & Toner, 1990). To the extent that social withdrawal is not considered an emotional reaction, it appears that females respond with greater emotion than males. If the definition is broadened to encompass changes in activity or conduct, then males may have demonstrated an emotional response as well.

Recently, this gender difference in self-reported rumination or distraction has been qualified by results that implicate gender role identification rather than gender per se. Conway, Giannopoulos, and Stiefenhofer (1990) show that high femininity scorers compared with low femininity scorers reported more rumination on items such as "I get together with one very close person or friend." In contrast, people who score higher on masculinity reported more distraction behaviors (e.g., "I get away and do something I enjoy"). This finding is consistent with other data linking gender role identification to emotional expressiveness (Ganong & Coleman, 1985).

### Global Versus Discrete Emotion Self-Reports

Finally, self-report measures can differ on a global versus discrete dimension. A measure of global emotion elicits self-report about general emotionality that relies on the everyday understanding of what it means to be emotional. A global self-report measure also can be one that sums across self-reports of several emotions. In contrast, measures of discrete emotion elicit self-reports of specific types of emotion (e.g., anger, sadness, joy). Individual difference measures of emotion, such as Izard's Differential Emotions Scale, are often used to assess differences among reported frequency of several emotions (Izard, 1977; Izard, Dougherty, Bloxom, & Kotsch, 1974). Most investigators examining the gender-emotion relationship have tended to favor measures of discrete states rather than global emotion (but see Diener et al., 1985). As a result, the findings reviewed here should be considered suggestive rather than definitive. It remains for future research to provide direct comparisons of self-reports of global and discrete emotion.

We hypothesize that gender differences are more likely to occur when people are asked about global emotionality rather than about particular emotional states. Global assessments (e.g., "How emotional are you?"),

drawing as they do on commonplace understanding of the term *emotional* ("showing emotion, especially strong emotion," "easily aroused to emotion"; *Webster's New World Dictionary*, second college edition), will tend to elicit judgments based on stereotypes of emotion. Self-report measures of discrete emotions may show a less clear gender-emotion link both because stereotypes of gender differences in discrete emotions may be more variable and because specific emotions may be more tied to particular circumstances, resulting in gender being only one of several factors effecting differences in reported frequency or intensity of emotion.

The most obvious finding from existing studies investigating gender and self-report of discrete emotions is the lack of any consistent relationship. Shields (1984) found no differences in the degree to which anger, sadness, and anxiety were reported to be felt by males and females. She did find that females self-reported more physiological symptoms associated with each state. Although Thomas (1989) found females to report more physical aspects of anger, Wallbott et al. (1986) found no evidence for gender differences in self-reports of physiological symptoms associated with any emotion.

Among adolescent subjects, studies have investigated gender differences in self-reports of subjective experience and found that results vary as a function of the particular emotion that is judged. Using the Differential Emotions Scale (Izard, 1977), females were found to score higher than males on reports of shame, guilt, and sadness, among others, whereas there were no gender differences on joy, fear, disgust, and anger (Stapley & Haviland, 1989). Other studies show that girls report more intense sadness, whereas boys report more intense anger (Harris & Howard, 1987), while still others report no differences on guilt but greater depression by females and greater arousal by males (Boyle, 1989).

Some investigators have claimed that certain discrete emotions (e.g., anger) are more typical of males, whereas others (e.g., sadness, fear) are more typical of females. In fact, Birnbaum and Croll (1984) showed that, as early as preschool age, children "know" that anger is a male characteristic while fear, sadness, and happiness are female characteristics. When subjects are asked about their ability to express a range of different emotions, few gender differences materialized. For example, Blier and Blier-Wilson (1989) asked male and female college students to rate the confidence they had in their ability to express several

emotions, including anger, liking/love and affection, fear, sadness, vulnerability, and loneliness to a male or female other. Although there was no main effect of gender in self-rated expressivity, some discrete emotion effects were obtained. For fear and sadness, females expressed higher confidence in their expressive ability than males but, with respect to anger and liking, the effects varied as a combined function of subject and target gender. That is, males expressed more confidence in their ability to express anger with male than with female targets and females expressed greater confidence than males in their ability to convey liking toward male targets.

Even when the discrete emotion is stereotypically linked to gender (e.g., males show more anger than females), results are far from conclusive. A recurrent theme in the gender and emotion literature is the greater social pressure on women than on men to control and manage both the experience and the display of anger (Smith, Ulch, Cameron, & Cumberland, 1989; Stearns & Stearns, 1986). For example, Gueldner and Clayton (1987) reported low anger-hostility scores on the Profile of Mood States (POMS; McNair, Lorr, & Droppleman, 1981) in a sample of elderly women. Nevertheless, several investigators have noted no statistically reliable gender difference on state or trait anger (Averill, 1982; Kopper & Epperson, 1991; Spielberger, Jacobs, Russell, & Crane, 1983; Stoner & Spencer, 1987; Tavris, 1984). Burrowes and Halberstadt (1987) explored gender differences on a self-report measure designed to tap experienced and expressed anger in social situations. In addition, they obtained a rating of expressivity by a friend or family member for some respondents. Again, no reliable gender differences were found on any measure. In a recent study, Thomas (1989) investigated self-reported anger in a diverse sample of middle-aged males and females using the Framingham Anger Scales (Haynes, Levine, Scotch, Feinleib, & Kannel, 1978). Results showed that gender did not predict the likelihood of either suppressing or expressing anger.

### Conclusions Regarding Self-Report of Emotionality

Self-reports of emotionality consist of a heterogeneous set of measures, and the aforementioned dimensions provide insight into the conditions associated with greater or lesser gender variability. Organized this way, the existing literature leads us to suggest the following: Females will report being more emotional than males when the measure

is direct rather than indirect, when the self-reported emotion is potentially perceptible by others rather than privately experienced, when the context is interpersonal rather than impersonal, and when global rather than discrete emotion is examined.

We offer these hypotheses with two clear caveats. First, most of the studies under review do not measure both ends of the respective dimensions within the same study, and, second, many of the findings that show lack of strong and consistent gender differences are based on null results. Nevertheless, when direct comparisons are available, there is supportive evidence. When respondents are asked to report on how emotionally demonstrative they are, self-reports bear out the stereotype of greater female emotionality if the focus is on self-rated expressivity rather than self-reported experience. That finding, coupled with results showing no consistent gender effects in the ability to be expressive, suggests strongly that the differences may be due to self-presentational conformity with prescribed sex roles.

It seems to be the case that women and men reporting on their tendency to be generally emotional or visibly expressive may be reporting their beliefs about appropriate or expected gender-linked behavior. If, on the other hand, they are asked about particular feelings in particular situations, self-reports may be more influenced by the circumstances that give rise to the feelings rather than by a gender stereotype. Therefore individual variability rather than sex role adherence becomes apparent.

### GENDER AND NONVERBAL EXPRESSIVITY

In this section, we deal with a quite different measure of emotionality. Its most salient characteristic is that the response is behavioral rather than verbal, in most cases involving a measure of facial activity. There is considerable evidence that females are more nonverbally expressive than males. First, observers can more accurately identify emotional states from female than from male faces (Buck, Miller, & Caul, 1974; Fujita, Harper, & Wiens, 1980; Gallagher & Shuntich, 1981; Hall, 1984; Wagner, MacDonald, & Manstead, 1986); second, females show a greater amount of facial activity than males (Buck, Baron, & Barette, 1982; Buck, Baron, Goodman, & Shapiro, 1980); third, female faces show more facial electromyographic activity than male faces (Dimburg, 1988; Schwartz, Brown, & Ahern, 1980).

Nevertheless, the pattern of greater female expressivity is not entirely consistent. For example, some studies find that the superiority in expressivity is not always obtained (Cupchik & Poulos, 1984) or obtained across all emotions (Gitter, Black, & Mostofsky, 1972). Particularly with respect to the emotion of anger, there is some evidence that women are actually more likely than men to suppress its expression presumably because anger is thought to be incompatible with being feminine (Haynes et al., 1978; Lerner, 1985).

In addition, there is some data to show that greater expressivity may not necessarily reflect greater emotionality. For example, one study found females to show more facial activity in response to emotionally loaded questions than males but noted no gender differences in more subtle indications, such as gaze aversion (Cherulnik, 1979). These results mirror those obtained earlier by Buck and his colleagues, who found that females displayed more facial movement than males in response to affect-evoking pictures but corresponding sex differences in the intensity of physiological responsivity were not found (Buck et al., 1974). The issue here is whether gender differences in facial display are indicative of underlying state or whether they are better regarded as social signals. These perceptible signals are important both when they are designed to be *seen* by others, as in the case of females, and when they are designed not to be *seen* by others, as in the case of males. Recent studies show that smiling is more likely to occur in the real or imagined presence of others than as a direct manifestation of positive affect (Fridlund, 1991; Kraut & Johnston, 1979).

Other evidence implicates the nature of the social context in which the display occurs. For example, although a number of studies have found that women report crying more often than men (Choti, Marston, Holston, & Hart, 1987; Lombardo, Cretser, Lombardo, & Mathis, 1983; Wallbott, 1988), it is also the case that reports of crying vary by the gender of the partner with females indicating that they cry more with males while males report crying less in the company of females (Choti et al., 1987).

Among preteens, girls with high levels of social competence were better at expressing facial affect than those with less competence but there was no such relationship for boys (Custrini & Feldman, 1989). Among adults, there is evidence that males place a high value on female expressivity. For example, males report greater satisfaction with their dating relationship when the exchange is perceived to have followed

sex-typed norms, that is, with the male disclosing less about himself relative to his female partner (Millar & Millar, 1988). Males also report being more attracted to a high expressive opposite-gender person than a low expressive opposite-gender person especially if that person was described as physically attractive (Sprecher, 1989). In a related study among married couples, husbands' marital complaints were found to increase as their wives expressive abilities decreased (Sabatelli, Buck, & Dreyer, 1982).

There are also indications that high expressivity by males is often suspect. Hammen and Peters (1977) studied the reactions of students to descriptions of men and women experiencing depressive emotions and found that perceptibly depressed men were evaluated more negatively than the perceptibly depressed women. This pattern of differential negative evaluation did not occur when the descriptions involved apparently unemotional, that is, detached responses. Depression expressed less obviously (e.g., social withdrawal) appears more acceptable for men. Nevertheless, there are indications that the restricted display of emotions by males is undergoing some change, in particular, that it may occasionally be acceptable for males to express "tender emotions" (Balswick, 1988). Also, concern has been voiced by some about the curtailed expressivity and restricted emotionality of males (Goldberg, 1976; O'Neil, 1982). Narus and Fisher (1982) found, for example, that androgynous males were more emotionally expressive than males scoring high on masculine traits, and Cherulnik and Evans (1984) found that men who score high on self-monitoring were judged to be more expressive than men who score low on this measure.

Accordingly, findings on nonverbal expressivity suggest that expressive behavior is actively managed and that the management requires different displays for females and males. Actually, observers tend to believe that the sexes differ more in the overt display of affect than in the intensity of the feelings themselves (Fabes & Martin, 1991; Johnson & Shulman, 1988). Females find inexpressivity in a situation calling for some overt reaction to be censurable (e.g., a funeral; Graham, Gentry, & Green, 1981), whereas the opposite is true for males, with even young boys anticipating negative reactions for being emotionally expressive (Fuchs & Thelen, 1988).

The usual assumption about the differential management of expressivity is that men suppress overt displays of feeling. The other side of that notion, namely, that women may actively enhance their display,

has received less attention. Hochschild (1983) starts from the observation that women are more expressive than men but argues that it stems from the social requirement that women do "emotional labor." Emotional labor requires one to induce or suppress feeling to sustain the outward display that produces the preferred state of mind in others. And because the well-managed display resembles spontaneous display, it is possible to confuse the two. In fact, Bugental, Love, and Gianetto (1971) found that mothers' smiles, unlike fathers' smiles, were unrelated to the pleasantness of the message to their children.

A recent study has shown that observers are sensitive to the possibility that emotional displays by females may be deliberately managed. Males and females were presented with written vignettes in which either a male or a female target got angry or sad in response to a frustrating circumstance. In both conditions, the behavior of the female target was rated as more deliberate and attributed less to the provoking circumstance than was the case for the male target (Egerton, 1988). This is compatible with earlier work on personal influence strategies, which found that more women than men report deliberately showing emotion to "get their way" (Johnson & Goodchilds, 1976).

In sum, there are rather consistent expressivity differences between men and women, particularly with respect to facial display. Nevertheless, these differences may or may not reflect differences in internal affective states. One possibility is that the underlying feelings are essentially comparable but the variation in expressivity results from different gender-based display rules specifying what feelings should be shown and with what intensity (Ekman & Friesen, 1975). Another possibility is that overt display is relatively independent of emotionality and that variation in expressivity is the result of societal requirements that there be observable gender differences. In other words, manifest differences can serve to create and sustain the belief that the sexes are different.

#### GENDER AND PHYSIOLOGICAL INDICATORS OF EMOTIONALITY

Studies of the physiological concomitants of emotion reveal a complex and incomplete picture. The complexity has several sources. First, until recently, most research exploring the physiological concomitants

of emotionality used single sex research designs, and those more often used male subjects. Second, some of the complexity stems from the reality that physiological reactivity is itself not unidimensional. Third, part of the complexity derives from the fact that there exists no agreed-upon single measure or set of measures that are unequivocally tied to emotionality.

Finally, some of the complexity derives from a pattern of mixed results when gender is considered. For example, early studies reported that females showed higher galvanic skin response (GSR) in response to affectively loaded stimuli (Aronfreed, Messick, & Diggory, 1953; Berry & Martin, 1957) and a recent study found that females were higher on heart rate and diastolic blood pressure on two different types of stressors while males were higher on systolic blood pressure but only on one of the stressors (Stone, Dembroski, Costa, & MacDougall, 1990). Other research, however, shows males to be more reactive, showing greater amine output under stress (Frankenhaeuser et al., 1978) as well as exhibiting larger blood pressure and epinephrine increases under stress than do women (Stoney, Davis, & Matthews, 1987).

When studies employ multiple physiological measures, the results yield no simple gender main effects. As an illustration that multiple physiological measures do not always lead to the same conclusion, Cornelius and Averill (1983) found, in response to a live tarantula, that females showed higher heart rate than men but did not differ from them on skin conductance. A recent study measured levels of low density and high density lipoprotein-cholesterol, triglycerides, free fatty acids, nor-epinephrine, heart rate, and blood pressure of males and females in response to several tasks and found that males had larger low density lipoprotein-cholesterol and blood pressure increases to all the tasks while females had only larger heart rate responses to a videotaped speech task (Stoney, Matthews, McDonald, & Johnson, 1988). Moreover, Matthews and her colleagues found that gender-relevant tasks did not influence the extent of sex differences in physiological responses. In fact, males tended to exhibit greater responsivity regardless of the gender orientation of the task (Matthews, Davis, Stoney, Owens, & Caggiula, 1991).

Other studies report finding no gender differences in response to emotion on physiological measures. For example, Kleck and Strenta (1985) found there to be no significant gender differences in subjects upon seeing images of themselves disfigured. In a number of studies

conducted by Levenson and his colleagues, subjects' physiological activity is measured in response to the requirement that they voluntarily produce a number of different emotional facial configurations (Levenson, Carstensen, Friesen, & Ekman, 1991; Levenson, Ekman, & Friesen, 1990). In one study that used both professional actors and college students as subjects, there was no evidence that women and men differed significantly in the extent of resulting autonomic activity even though both groups did show that voluntary facial activity produced significant levels of subjective experience of the associated emotion as well as significant levels of autonomic activity (Levenson et al., 1990). The same procedure was also employed in a sample of elderly people and, again, there were no significant differences, with both elderly men and elderly women showing comparable emotional physiology (Levenson et al., 1991).

Some studies have addressed the gender question by using stimuli differing in gender relevance. For example, heart rate responses of male students have been found to increase in response to erotic stimuli while female students' heart rate increased in response to crying baby video segments (Furedy, Fleming, Ruble, Scher, et al., 1989). Similarly, when EMG recordings were taken of males and females exposed to slides of angry and happy faces, results show stronger facial effects for females than males particularly with respect to happy affect (Dimberg & Lundquist, 1990). But other research finds no interaction between subject sex and gender-relevant stimuli. Frodi (1978) took some pains to create sex-appropriate emotional elicitors for anger and found no gender differences on a number of physiological measures including systolic blood pressure, heart rate, and skin conductance.

One of the more intriguing findings regarding the relationship linking gender, emotion, and physiological activity was a study by Buck and his colleagues that found, in response to affect-laden material, that adult females were more facially expressive but showed significantly less autonomic arousal whereas adult males expressed little facially but conveyed more physiologically (Buck et al., 1974). The intuitive reading of this study is that suppression of external display "causes" enhanced internal reactivity. A related interpretation is the speculation from Gottman and Levenson (1986) derived from their studies of interactions of dissatisfied marital couples that men engage in more distracting behaviors (e.g., withdrawal) not because they are less emotional than women but because they are more physiologically reactive

than women and strive to avoid arousal. They therefore actively divert or suppress negative affect so as to render it less salient. The explanation, however, remains controversial as other data show positive associations among physiological and expressive measures (Leventhal & Mosbach, 1983). In sum, although the data are not all in as to how gender interacts with physiological aspects of emotionality, the weight of the evidence tends to support the idea that men show more physiological concomitants of emotion than do women.

## GENERAL CONCLUSIONS

We began this chapter with the suggestion that the finding of gender differences in emotionality may very well depend on the modality through which it is assessed and the particular emotional dimension that is being tapped. A review of the literature provides support for these propositions. As others have noted, emotions are multidimensional constructs including expressive and behavioral, experiential, and physiological components. Were one to concentrate on expressive aspects, the evidence seems to be there to support the notion that women are more emotionally demonstrative than men, at least with respect to the most visible channel, namely, facial expressivity. Were one to focus instead on the experiential component and hence rely on self-report indicators, the evidence for gender differences is occasionally there, contingent upon a particular set of measurement strategies. Specifically, women appear more emotional than men if they are asked directly, if the emotional domain is observable, if the context is interpersonal, and if the question concerns global emotionality. In the opposite set of conditions, gender effects are either nonexistent or inconsistent. Finally, were one to appeal to physiological indices of emotionality, the appropriate conclusion is that men and women do not show invariable differences.

The correspondence between observed expressivity and self-reported expressivity, on the one hand, and the fact that women show and report more of both raises a number of intriguing questions concerning the role overt display plays in actual or ascribed emotionality. It appears that public display plays a large role in affecting judgments of emotionality both by self and by observers, but whether differences in overt expressivity should be taken as reflecting fundamental emotionality differences

is quite another matter. There is also a need to inquire further as to the social functions of observable emotive display and why one group appears to work harder at being demonstrative while the other appears to expend more energy on dampening such expression. More generally, the literature on the gender aspects of emotionality reaffirms its social character.

## REFERENCES

- Allen, J. G., & Haccoun, D. M. (1976). Sex differences in emotionality: A multidimensional approach. *Human Relations, 29*, 711-722.
- Aronfreed, J. M., Messick, S. A., & Diggory, J. C. (1953). Re-examining emotionality and perceptual defense. *Journal of Personality, 21*, 517-528.
- Averill, J. R. (1982). *Anger and aggression: An essay on emotion*. New York: Springer-Verlag.
- Averill, J. R. (1986). The acquisition of emotions during adulthood. In R. Harré (Ed.), *The social construction of the emotions*. Oxford: Basil Blackwood.
- Balswick, J. O. (1988). *The inexpressive male*. Lexington, MA: Lexington.
- Banaji, M. R., Greenwald, A. G., & Bellezza, F. S. (1985). *Are women more emotional? Gender differences in reported emotional response do not translate to recall*. Unpublished manuscript.
- Banaji, M., & LaFrance, M. (1989, May). *Gender and emotionality: Differences in verbal expression and similarities in rated intensity*. Paper presented to the Eastern Psychological Association, Boston.
- Berry, J. L., & Martin, B. (1957). GSR reactivity as a function of anxiety, instructions, and sex. *Journal of Abnormal and Social Psychology, 54*, 9-12.
- Birnbaum, D. W., & Croll, W. L. (1984). The etiology of children's stereotypes about sex differences in emotionality. *Sex Roles, 10*, 677-691.
- Blier, M. J., & Blier-Wilson, L. A. (1989). Gender differences in self-rated emotional expressiveness. *Sex Roles, 21*, 287-295.
- Boyle, G. J. (1989). Sex differences in reported mood states. *Personality and Individual Differences, 10*, 1179-1183.
- Brody, L. R. (1985). Gender differences in emotional development: A review of theories and research. *Journal of Personality, 53*, 102-149.
- Broverman, D. M., Clarkson, F., & Rosenkrantz, P. S. (1972). Sex role stereotypes: A current appraisal. *Journal of Sex Roles, 28*, 59-78.
- Buck, R., Baron, R., & Barette, D. (1982). Temporal organization of spontaneous emotional expression. *Journal of Personality and Social Psychology, 42*, 506-517.
- Buck, R., Baron, R., Goodman, N., & Shapiro, B. (1980). Unitization of spontaneous nonverbal behavior in the study of emotion communication. *Journal of Personality and Social Psychology, 39*, 522-529.
- Buck, R., Miller, R. E., & Caul, W. F. (1974). Sex, personality and physiological variables in the communication of affect via facial expression. *Journal of Personality and Social Psychology, 30*, 587-596.
- Bugental, D. E., Love, L. R., & Gianetto, R. M. (1971). Perfidious feminine faces. *Journal of Personality and Social Psychology, 17*, 314-318.
- Burrowes, B. D., & Halberstadt, A. G. (1987). Self- and family-expressiveness styles in the experience and expression of anger. *Journal of Nonverbal Behavior, 11*, 254-268.
- Campbell, A., & Muncer, S. (1987). Models of anger and aggression in the social talk of women and men. *Journal for the Theory of Social Behavior, 17*, 489-511.
- Cherulnik, P. D. (1979). Sex differences in the expression of emotion in a structured social encounter. *Sex Roles, 5*, 355-361.
- Cherulnik, P. D., & Evans, R. M. (1984). Facial expressive behaviors of high self monitors are less sex typed. *Sex Roles, 11*, 435-449.
- Chodorow, N. (1980). *The reproduction of mothering*. Berkeley: University of California Press.
- Choti, S. E., Marston, A. R., Holston, S. G., & Hart, J. T. (1987). Gender and personality variables in film induced sadness and crying. *Journal of Social and Clinical Psychology, 5*, 535-544.
- Constantinople, A. (1973). Masculinity-femininity: An exception to the famous dictum? *Psychological Bulletin, 80*, 389-407.
- Conway, M., Giannopoulos, C., & Stiefenhofer, K. (1990). Response styles to sadness are related to sex and sex-role orientation. *Sex Roles, 22*, 579-587.
- Cornelius, R. R., & Averill, J. R. (1983). Sex differences in fear of spiders. *Journal of Personality and Social Psychology, 45*, 377-383.
- Cupchik, G. C., & Poulos, C. X. (1984). Judgments of emotional intensity in self and others: The effects of stimulus context, sex, and expressivity. *Journal of Personality and Social Psychology, 46*, 431-439.
- Custrini, R. J., & Feldman, R. S. (1989). Children's social competence and nonverbal encoding and decoding of emotions. *Journal of Clinical Child Psychology, 18*, 336-342.
- Diener, E., Sandvik, E., & Larsen, R. J. (1985). Age and sex effects for emotional intensity. *Developmental Psychology, 21*, 542-546.
- Dimburg, U. (1988). Facial electromyography and the experience of emotion. *Journal of Psychophysiology, 3*, 277-282.
- Dimburg, U., & Lundquist, L. (1990). Gender differences in reactions to facial expressions. *Biological Psychology, 30*, 151-159.
- Dosser, D. A., Balswick, J. O., & Halverson, C. F., Jr. (1983). Situational context of emotional expressiveness. *Journal of Counseling Psychology, 30*, 375-387.
- Egerton, M. (1988). Passionate women and passionate men: Sex differences in accounting for angry and weeping episodes. *British Journal of Social Psychology, 27*, 51-66.
- Ekman, P., & Friesen, W. V. (1975). *Unmasking the face*. Englewood Cliffs, NJ: Prentice-Hall.
- Fabes, R. A., & Martin, C. L. (1991). Gender and age stereotypes of emotionality. *Personality and Social Psychology Bulletin, 17*, 532-540.
- Frankenhaeuser, M., von Wright, M. R., Collins, A., von Wright, J., Sedvall, G., & Swahn, C. G. (1978). Sex differences in psychoneuroendocrine stress reactions to examination stress. *Psychosomatic Medicine, 40*, 334-343.
- Fridlund, A. J. (1991). Sociality of solitary smiling: Potentiation by an implicit audience. *Journal of Personality and Social Psychology, 60*, 229-240.

- Friedman, H. S., Prince, L. M., Riggio, R. E., & DiMatteo, M. R. (1980). Understanding and assessing nonverbal communication of emotion: The Affective Communication Test. *Journal of Personality and Social Psychology*, 39, 333-351.
- Frodi, A. (1978). Experiential and physiological responses associated with anger and aggression in women and men. *Journal of Research in Personality*, 12, 335-349.
- Fuchs, D., & Thelen, M. H. (1988). Children's expected interpersonal consequences of communicating their affective state and reported likelihood of expression. *Child Development*, 59, 1314-1322.
- Fujita, B. N., Harper, R. G., & Wiens, A. N. (1980). Encoding-decoding of nonverbal emotional messages: Sex differences in spontaneous and enacted expressions. *Journal of Nonverbal Behavior*, 4, 131-145.
- Furedy, J. J., Fleming, A. S., Ruble, D. N., Scher, H., et al. (1989). Sex differences in small magnitude heart rate responses to sexual and infant-related stimuli: A psychophysiological approach. *Physiology and Behavior*, 46, 903-905.
- Gallagher, D., & Shuntich, R. J. (1981). Encoding and decoding of nonverbal behavior through facial expressions. *Journal of Research in Personality*, 15, 241-252.
- Ganong, L., & Coleman, M. (1985). Sex, sex roles, and emotional expressiveness. *Journal of Genetic Psychology*, 146, 405-411.
- Gitter, A. G., Black, H., & Mostofsky, B. (1972). Race and sex in the perception of emotion. *Journal of Social Issues*, 28, 63-78.
- Goldberg, H. (1976). *The hazards of being male: Surviving the myth of masculine privilege*. Plainview, NY: Nash.
- Gottman, J. M., & Levenson, R. W. (1986). The social psychophysiology of marriage. In P. Noller & M. A. Fitzpatrick (Eds.), *Perspectives in marital interaction* (pp. 182-200). Philadelphia: Multilingual Matters.
- Graham, J. W., Gentry, K. W., & Green, J. (1981). The self-presentational nature of emotional expression: Some evidence. *Personality and Social Psychology Bulletin*, 7, 467-474.
- Gueldner, S., & Clayton, G. (1987). *The expression of anger and other mood states in nursing home residents*. Paper presented at the American Nurses' Association International Nursing Research Conference, Arlington, VA.
- Hall, J. A. (1984). *Nonverbal sex differences*. Baltimore, MD: Johns Hopkins University Press.
- Hammen, C. L., & Peters, S. D. (1977). Differential responses to male and female depressive reactions. *Journal of Consulting and Clinical Psychology*, 45, 994-1001.
- Harris, I. D., & Howard, K. I. (1987). Correlates of depression and anger in adolescence. *Journal of Child and Adolescent Psychotherapy*, 4, 199-203.
- Haynes, S., Levine, S., Scotch, N., Feinleib, M., & Kannel, W. B. (1978). The relationship of psychosocial factors to coronary heart disease in the Framingham Study. I. Methods and risk factors. *American Journal of Epidemiology*, 107, 362-383.
- Hochschild, A. R. (1983). *The managed heart: Commercialization of human feeling*. Berkeley: University of California Press.
- Izard, C. E. (1977). *Human emotions*. New York: Plenum.
- Izard, C. E., Dougherty, F. E., Bloxom, B. M., & Kotsch, N. E. (1974). *The Differential Emotions Scale: A method of measuring the subjective experience of discrete emotions*. Unpublished manuscript, Vanderbilt University, Department of Psychology.

- Johnson, J. T., & Shulman, G. A. (1988). More alike than meets the eye: Perceived gender differences in subjective experience and its display. *Sex Roles*, 19, 67-79.
- Johnson, P. B., & Goodchilds, J. D. (1976). How women get their way. *Psychology Today*, 10, 69-70.
- King, L. A., & Emmons, R. A. (1990). Conflict over emotional expression: Psychological and physical correlates. *Journal of Personality and Social Psychology*, 58, 864-877.
- Kleck, R. E., & Strenta, A. C. (1985). Gender and responses to disfigurement in self and others. *Journal of Social and Clinical Psychology*, 3, 257-267.
- Kopper, B. A., & Epperson, D. L. (1991). Women and anger: Sex and sex-role comparisons in the expression of anger. *Psychology of Women Quarterly*, 15, 7-14.
- Kraut, R. E., & Johnston, R. E. (1979). Social and emotional messages of smiling: An ethological approach. *Journal of Personality and Social Psychology*, 37, 1539-1553.
- Larsen, R. J., & Diener, E. (1987). Affect intensity as an individual difference characteristic: A review. *Journal of Research in Personality*, 21, 1-39.
- Lerner, H. (1985). *The dance of anger*. New York: Harper & Row.
- Levenson, R. W., Carstensen, L. L., Friesen, W. V., & Ekman, P. (1991). Emotion, physiology and expression in old age. *Psychology and Aging*, 6, 28-35.
- Levenson, R. W., Ekman, P., & Friesen, W. V. (1990). Voluntary facial action generates emotion-specific autonomic nervous system activity. *Psychophysiology*, 27, 363-384.
- Leventhal, H., & Mosbach, P. A. (1983). The perceptual-motor theory of emotion. In J. T. Cacioppo & R. E. Petty (Eds.), *Social psychophysiology: A sourcebook* (pp. 353-388). New York: Guilford.
- Lombardo, W. K., Cretser, G. A., Lombardo, R., & Mathis, S. L. (1983). Fer cryin' out loud: There is a sex difference. *Sex Roles*, 9, 987-995.
- Lubin, B., Rinck, C. M., & Collins, J. F. (1986). Intensity ratings of mood adjectives as a function of gender and age group. *Journal of Social and Clinical Psychology*, 4, 244-247.
- Lutz, C. A. (1990). Engendered emotion: Gender, power, and the rhetoric of emotional control in American discourse. In C. A. Lutz & L. Abu-Lughod (Eds.), *Language and the politics of emotion*. Cambridge: Cambridge University Press.
- Mackie, M. (1980). The impact of sex stereotypes upon adult self imagery. *Social Psychology Quarterly*, 43, 121-125.
- Matthews, K. A., Davis, M. C., Stoney, C. M., Owens, J. F., & Caggiola, A. R. (1991). Does the gender relevance of the stressor influence sex differences in psychophysiological responses? *Health Psychology*, 10, 112-120.
- McHugo, G. J., Smith, C. A., & Lanzetta, J. T. (1982). The structure of self reports of emotional responses to film segments. *Motivation and Emotion*, 6, 365-385.
- McNair, D. M., Lorr, M., & Droppleman, L. F. (1981). *Manual for the Profile of Mood States (POMS)*. San Diego: Educational and Industrial Testing Service.
- Millar, K. U., & Millar, M. G. (1988). Sex differences in perceived self- and other-disclosure: A case where inequity increases satisfaction. *Social Behavior and Personality*, 16, 59-64.
- Narus, L., & Fisher, J. (1982). Strong but not silent: A re-examination of expressivity in the relationship of men. *Sex Roles*, 8, 159-168.
- Nolen-Hoeksema, S. (1987). Sex differences in unipolar depression: Evidence and theory. *Psychological Bulletin*, 101, 259-282.

- O'Grady, K. E., & Janda, L. H. (1989). The effects of anonymity and dissimulation on the Differential Emotions Scale. *Personality and Individual Differences, 10*, 1033-1040.
- Oliver, S. J., & Toner, B. B. (1990). The influence of gender role typing on the expression of depressive symptoms. *Sex Roles, 22*, 775-790.
- O'Neil, J. M. (1982). Gender and sex role conflict in men's lives: Implications for psychiatrists, psychologists, and other human service providers. In K. Solomon & M. Levy (Eds.), *Men in transition: Theory and therapy*. New York: Plenum.
- Papirini, D. R., Farmer, F. F., Clark, S. M., & Micka, J. C. (1990). Early adolescent age and gender differences in patterns of emotional self disclosure to parents and friends. *Adolescence, 25*, 959-976.
- Parsons, T., & Bales, R. (1955). *Family, socialization, and interaction process*. Glencoe, IL: Free Press.
- Phillips, E., & Whissell, C. (1986). "What makes you feel?" Children's perceptions of the antecedents of emotion. *Journal of Social Behavior and Personality, 1*, 587-592.
- Sabatelli, R., Buck, R., & Dreyer, A. (1982). Nonverbal communication accuracy in married couples: Relationship with marital complaints. *Journal of Personality and Social Psychology, 43*, 1088-1097.
- Schenk, J., & Heinisch, R. (1986). Self-descriptions by means of sex-role scales and personality scales: A critical evaluation of recent masculinity and femininity scales. *Personality and Individual Differences, 7*, 161-168.
- Schwartz, G. E., Brown, S., & Abern, G. L. (1980). Facial muscle patterning and subjective experience during affective imagery: Sex differences. *Psychophysiology, 17*, 75-82.
- Shields, S. A. (1984). Reports of bodily change in anxiety, sadness, and anger. *Motivation and Emotion, 8*, 1-21.
- Shields, S. A. (1987). Women, men and the dilemma of emotion. In P. Shaver & C. Hendrick (Eds.), *Sex and gender*. Newbury Park, CA: Sage.
- Shields, S. A., & Koster, B. A. (1989). Emotional stereotyping of parents in child rearing manuals, 1915-1980. *Social Psychology Quarterly, 52*, 44-55.
- Shimanoff, S. (1983). The role of gender in linguistic reference to emotive states. *Communication Quarterly, 30*, 174-179.
- Smith, K. C., Ulch, S. E., Cameron, J. E., & Cumberland, J. A. (1989). Gender-related effects in the perception of anger expression. *Sex Roles, 20*, 487-499.
- Snell, W. E., Miller, R. S., Belk, S. S., Garcia-Falconi, R., & Hernandez-Sanchez, J. E. (1989). Men's and women's emotional disclosures: The impact of disclosure recipient, culture, and the masculine role. *Sex Roles, 21*, 467-485.
- Spielberger, C. D., Barker, L., Russell, S., Silva de Crane, R., Westberry, L., Knight, J., & Marks, E. (1979). *Preliminary manual for the State-Trait Personality Inventory (STPI)*. Tampa: University of South Florida.
- Spielberger, C. D., Jacobs, G., Russell, S., & Crane, R. S. (1983). Assessment of anger: The State-Trait Anger Scale. In J. N. Butcher & C. D. Spielberger (Eds.), *Advances in personality assessment* (Vol. 2). Hillsdale, NJ: Lawrence Erlbaum.
- Sprecher, S. (1989). The importance to males and females of physical attractiveness, earning potential, and expressiveness. *Sex Roles, 21*, 591-607.
- Stairs, P. W., & Blick, K. A. (1979). A survey of emotional content of dreams recalled by college students. *Psychological Reports, 45*, 839-842.

- Stapley, J. C., & Haviland, J. M. (1986). *The elicitors of emotion questionnaire*. Unpublished manuscript, Rutgers, State University of New Jersey, New Brunswick, NJ.
- Stapley, J. C., & Haviland, J. M. (1989). Beyond depression: Gender differences in normal adolescents' emotional experiences. *Sex Roles, 20*, 295-308.
- Stearns, C. Z., & Stearns, P. N. (1986). *Anger: The struggle for emotional control in America's history*. Chicago: University of Chicago Press.
- Stone, S. V., Dembroski, T. M., Costa, P. T., & MacDougall, J. M. (1990). Gender differences in cardiovascular activity. *Journal of Behavioral Medicine, 13*, 137-156.
- Stoner, S. B., & Spencer, W. B. (1987). Age and gender differences with the Anger Expression Scale. *Educational and Psychological Measurement, 47*, 487-492.
- Stoney, C. M., Davis, M. C., & Matthews, K. A. (1987). Sex differences in physiological response to stress and in coronary heart disease: A causal link? *Psychophysiology, 24*, 127-131.
- Stoney, C. M., Matthews, K. A., McDonald, R. H., & Johnson, C. A. (1988). Sex differences in lipid, lipoprotein, cardiovascular, and neuroendocrine responses to acute stress. *Psychophysiology, 25*, 645-656.
- Tavris, C. (1984). *Anger: The misunderstood emotion*. New York: Simon & Schuster.
- Terman, L. M., & Miles, C. C. (1936). *Sex and personality*. New York: McGraw-Hill.
- Thomas, S. P. (1989). Gender differences in anger expression: Health implications. *Research in Nursing and Health, 12*, 389-398.
- Wagner, H. L., MacDonald, C. J., & Manstead, A. S. R. (1986). Communication of individual emotions by spontaneous facial expressions. *Journal of Personality and Social Psychology, 50*, 737-743.
- Wallbott, H. G. (1988). Big girls don't frown, big boys don't cry: Gender differences of professional actors in communicating emotion via facial expression. *Journal of Non-verbal Behavior, 12*, 98-106.
- Wallbott, H. G., Ricci-Bitti, P., & Banninger-Huber, E. (1986). Non-verbal reactions to emotional experiences. In K. R. Scherer, H. G. Wallbott, & A. B. Summerfield (Eds.), *Experiencing emotion: A cross cultural study*. Cambridge: Cambridge University Press.
- Wier, M., Phillips, J. L., & Stanners, R. F. (1987). A reexamination of sex differences in interpersonal verbs. *Psychology of Women Quarterly, 11*, 209-218.
- Zuckerman, D. M. (1989). Stress, self esteem, and mental health: How does gender make a difference? *Sex Roles, 20*, 429-444.