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THE GENDER STEREOTYPING OF EMOTIONS

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Three studies documented the gender stereotypes of emotions and the relationship between gender stereotypes and the interpretation of emotionally expressive behavior. Participants believed women experienced and expressed the majority of the 19 emotions studied (e.g., sadness, fear, sympathy) more often than men. Exceptions included anger and pride, which were thought to be experienced and expressed more often by men. In Study 2, participants interpreted photographs of adults' ambiguous anger/sadness facial expressions in a stereotype-consistent manner, such that women were rated as sadder and less angry than men. Even unambiguous anger poses by women were rated as a mixture of anger and sadness. Study 3 revealed that when expectant parents interpreted an infant's ambiguous anger/sadness expression presented on videotape only high-stereotyped men interpreted the expression in a stereotype-consistent manner. Discussion focuses on the role of gender stereotypes in adults' interpretations of emotional expressions and the implications for social relations and the socialization of emotion.

In a classic study, Condry and Condry (1976) found that an emotional display by an infant labeled "girl" was interpreted as less angry and more afraid than the same display by an infant labeled "boy." Implicit in this study is the assumption that there are gender stereotypes of emotions and that these stereotypes influence the adults' interpretations of infants' emotional expressions. Indeed, there is evidence that people believe men and women differ in their expression of specific emotions, such as anger and sadness (Birnbaum, Nosanchuk, & Croll, 1980; Fabes & Martin, 1991; J. T. Johnson & Schulman, 1988). If people's gender stereotypes of emotion influence their interpretations of emotional expression, this would have implications for social perception. For example, people's beliefs about the likelihood of a person becoming angry or sad during a personal challenge could lead to inferences about their leadership skills, which could ultimately channel people into different career paths and social roles (Eagly & Steffen, 1984; Ruble, 1983). The present research examines gender stereotypes of emotion and their relationship to the interpretation of emotional expressions.

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Gender Stereotypes of Emotion

For decades, the belief that women are more emotional than men has been one of the most consistent gender stereotypes (Rosenkrantz, Vogel, Bee, Broverman, & Broverman, 1968; Ruble, 1983; Williams & Best, 1990). Previous studies of gender stereotypes of emotion point to four central issues that will be simultaneously examined in the current studies. First, previous studies have examined only a relatively small subset of emotions (Fabes & Martin, 1991; Grossman & Wood, 1993; J. T. Johnson & Schulman, 1988), but emotional experience is rich and complex. In order to understand the gender stereotypes of emotion more thoroughly, a broad array of emotions was examined.

Second, previous studies have suggested that gender stereotypes may apply to beliefs about the *expression* of emotion more than to the *experience* of emotion (Fabes & Martin, 1991; Grossman & Wood, 1993; J. T. Johnson & Schulman, 1988). In one illustrative study, participants indicated that men and women experience most emotions to a similar degree, but that women express sadness, fear, and love more frequently than men, and men express anger more frequently than women (Fabes & Martin, 1991). The distinction between gender differences in the experience versus expression of emotion is meaningful. Endorsing the belief that men and women differ in their experience of emotion presupposes that the very appraisals, associations, and physiological sensations that determine the emotional experience of men and women differ, implying beliefs in fundamental gender differences. Endorsing the belief that men and women experience emotion similarly but express it differently suggests that peo-

ple believe that there are cultural display rules (Ekman & Friesen, 1969), including the gender stereotypes of emotional expression, that account for gender differences in emotional expression. To address this issue, the gender stereotypes about both the experience and expression of emotions were examined.

Third, the extant empirical evidence has focused on personal beliefs about gender differences in emotion (see Brody & Hall, 1993; LaFrance & Banaji, 1992, for reviews) but has not systematically distinguished between personal beliefs and cultural stereotypes. Personal beliefs and cultural stereotypes can act independently (Ashmore & Del Boca, 1981; Banaji & Greenwald, 1995; Devine, 1989), such that cultural stereotypes can affect information processing when the perceiver is unaware of stereotype activation; personal beliefs are thought to guide behavior when responses are under the influence of controlled processing (Devine, 1989). In addition, research on racial stereotypes and gender stereotypes of cognitive abilities has revealed that, although most everyone is aware of the cultural stereotypes, not everyone endorses them (Devine, 1989; Devine & Elliot, 1995; Hyde, Fennema, Ryan, Frost, & Hopp 1990). The current research seeks to determine whether people's personal beliefs and perceptions of cultural stereotypes of gender and emotion are distinct or whether people by and large endorse the cultural gender stereotypes of emotion. The fourth issue, the potential link between gender stereotypes of emotions and the interpretation of emotional expressions, will be explored in the next section.

Gender Stereotypes of Emotion and Interpretation of Facial Expressions

The preponderance of evidence attests to universality in interpretation of facial expressions, independent of the personal characteristics, including gender, of the target (e.g., Ekman, 1972; Ekman, Sorenson, & Friesen, 1969; Izard, 1971). Recent evidence suggests, however, that social and cultural factors may influence the interpretation of emotional expressions. For example, emotional displays posed by Asians are perceived as less intense than such displays posed by Caucasians (Matsumoto & Ekman, 1989). More germane to current work, women are perceived to express more intense embarrassment than men, even when their displays are not objectively different (Keltner, 1995). The perceived intensity of participants' embarrassment expressions may have been related to an expectation that women express more embarrassment than men. This finding highlights the need to examine systematically the impact of gender stereotypes of emotion on the interpretation of emotional expressions.

It seems plausible that gender stereotypes of emotion would function much like other stereotypes about the characteristics of social groups (see Hamilton & Sherman, 1994 for review). The stereotype literature is replete with examples of how stereotypes bias the processing of ambiguous information in a stereotype-consistent manner (e.g., Darley & Gross, 1983; Duncan, 1976). For example, in a study on the effect of racial stereotypes, participants interpreted an ambiguous shove as more violent when a Black person performed the act than when a White person did (Duncan, 1976). The implication for the present context is that ambiguous expressions will be interpreted in a gender stereotype-consistent manner.

The notion that gender might bias the interpretation of emotional expressions is not novel. Indeed, it was a central premise of Condry and Condry's (1976) study of adults' labeling of infants' emotional displays. Participants rated a videotape of an infant's emotional reactions to four stimuli (e.g., Teddy bear, jack-in-the-box); participants were told either that they were watching a boy or a girl. The infants' reactions to three of the stimuli were rated similarly regardless of the gender label. However, participants' interpretation of the child's reaction to the jack-in-the-box varied as a function of the child's gender label. Condry and Condry argued that the child's crying response to the jack-in-the-box was ambiguous and could be interpreted as either stereotypically masculine (anger) or stereotypically feminine (fear). Consistent with expectations, the "female" infant was rated as less angry and more afraid than the "male" infant.

Implicit in Condry and Condry's (1976) findings is the notion that adults' gender stereotypes of emotions affected their ratings of the infant's ambiguous expression. The reasoning is similar to contemporary theorizing, suggesting that stereotypes may serve as an implicit social context for the interpretation of relevant information (Banaji & Greenwald, 1995; Banaji, Hardin, & Rothman, 1993). In the present framework, gender stereotypes of emotion may supply the context for interpreting ambiguous facial expressions (Carroll & Russell, 1996). The main goal of Studies 2 and 3 was to examine whether the interpretation of emotional expressions is affected by the gender of the target person. Study 2 systematically examined the role of gender in the interpretation of adults' facial expressions. Study 3 revisited Condry and Condry's classic paradigm to examine prospective parents' interpretation of an infant's ambiguous emotional display as a function of the infant's gender label.

STUDY 1

Study 1 assessed the cultural stereotypes and personal beliefs about the frequency with which men and women experience and express a wide range of emotions. Because no prior work has examined cultural stereotypes of emotion, we made no specific predictions for them. We expected that the personal beliefs would resemble past findings of personal beliefs about gender stereotypes of previously studied emotions, with men rated higher than women for the expression of anger and pride and women rated higher than men for the experience and expression of happiness, fear, love, sadness, and sympathy (Birnbaum

et al., 1980; Fabes & Martin, 1991; J. T. Johnson & Schulman, 1988). In addition, consistent with past findings, we expected people to perceive larger gender differences in the expression than the experience of emotion (Fabes & Martin, 1991; J. T. Johnson & Schulman, 1988). Because our goal was to assess gender stereotypes of emotion comprehensively, previously unstudied emotions such as shyness and jealousy, for which we advanced no a priori hypotheses, were rated.

METHOD

Participants

Respondents were 117 undergraduate students (67 women) who earned extra course credit for their participation. Of the participants, 104 (89%) were White and 13 (11%) were Asian. Participants' age ranged from 17 to 39 ($M = 19.55$).

Materials and Procedure

Participants filled out two questionnaires based on Fabes and Martin's (1991) stereotype endorsement questionnaire. The first examined the cultural stereotypes in the United States about the frequency with which men and women experience and express 19 emotions. The second examined participants' personal beliefs about the frequency with which men and women experience and express these same emotions. Twelve emotions were chosen because they have distinct facial expressions: anger, awe, contempt, disgust, embarrassment, fear, guilt, happiness, interest, sadness, surprise, and shame (Ekman, 1992; Keltner, 1995). Two emotions were included because they are used to describe infants' emotions and were of interest for Study 3: distress and shyness (J. F. Johnson, Emde, Pannabecker, Stenberg, & Davis, 1982). Five emotions—jealousy, sympathy, amusement, love, and pride—were included because they are prominent in interpersonal relationships and have been studied extensively (e.g., Alessandri & Lewis, 1993; Eisenberg, Fabes, Schaller, & Miller, 1989; Fitness & Fletcher, 1993).

The instructions for the Cultural Stereotype Questionnaire (CSQ) stated, "We are not asking about your personal beliefs, or whether you believe that these generalizations are accurate. We instead want your opinions about the beliefs in our culture." For each emotion, participants responded to four questions on a scale from 1 (*never*) to 7 (*very frequently*): "How often are men believed to experience ____?" "How often are men believed to express ____?" "How often are women believed to experience ____?" and "How often are women believed to express ____?" The instructions for the Personal Beliefs Questionnaire (PBQ) stated, "We want you to tell us how often you think men and women experience and express different emotions." For each of the emotions, participants responded to four questions (e.g., "How often do you believe men experience ____?") on the same scale as those in the CSQ. Participants first completed the CSQ and then the PBQ[1]. Because questions were asked about men and women separately, it was possible that the expectation was set up for gender differences. However, given that we were interested in honest beliefs about gender differences, we wanted to focus on direct gender comparisons.

RESULTS

Overview of Analysis

A series of 2 (Target Gender: male vs. female) × 2 (Ratings: experience vs. expression) × 2 (Rater Gender: male vs. female) mixed-model analyses of variance (ANOVA) were conducted on ratings of the four questions for each emotion, with Target Gender and Ratings as repeated measures. To control for family-wise error, the alpha level was adjusted to .002 using a Bonferroni correction. Because none of the comparisons involving Rater Gender were significant, that variable was dropped from reported analyses.

Cultural Stereotypes

For 14 of the 19 emotions, the analyses revealed a significant main effect for Target Gender and an interaction between Target Gender and Rating (see Table 1).[2] Consistent with previous findings about people's personal beliefs, participants reported that in the United States men were believed to experience and express anger and pride more frequently than women and that women were believed to experience and express happiness, fear, love, sadness, and sympathy more often than men. Examination of the less studied emotions revealed that women were believed to experience and express awe, distress, embarrassment, guilt, shame, shyness, and surprise more often than men. The interactions for these 14 emotions revealed that these gender differences were larger for the expression than for the experience of these emotions. No gender effects or interactions were found for amusement, disgust, jealousy, and interest.

Personal Beliefs

Overall, the findings for the personal beliefs were quite similar to the findings for the cultural stereotypes. The analyses on 14 of the 19 emotions revealed a significant main effect for Target Gender and an interaction between Target Gender and Rating (see Table 2). Consistent with the cultural stereotypes, respondents believed that men experience and express anger and pride more often than women, and that women experience and express awe, disgust, fear, guilt, happiness, love, sadness, shyness, surprise, and sympathy more often than men. The interac-

Table 1

Mean Ratings and *F*-values for Cultural Stereotypes Regarding Men's and Women's Experience and Expression of Emotions in Study 1

Emotion	*Rating*	*Men* (*Mean* [SD])	*Women* (*Mean* [SD])	*Gender* (F)	*Experience/ Expression* (F)	*Interaction* (F)
Amusement	Experience	4.80 (1.05)[a]	4.86 (1.09)[a]	1.75	4.21	2.96
	Expression	4.56 (1.21)[a]	4.83 (1.23)[a]			
Anger	Experience	4.92 (.94)[a]	3.96 (1.14)[c]	126.59*	28.99*	19.81*
	Expression	4.78 (1.06)[a]	3.24 (1.13)[c]			
Awe	Experience	3.59 (.97)[a]	4.50 (.95)[c]	93.88*	16.33*	17.33*
	Expression	3.09 (1.21)[b]	4.53 (1.19)[c]			
Contempt	Experience	4.39 (1.04)[a]	4.17 (1.11)[b]	6.93	11.31*	5.92
	Expression	4.23 (1.22)[a]	3.77 (1.23)[c]			
Disgust	Experience	4.28 (1.10)[a]	4.48 (1.06)[b]	.32	10.51	2.25
	Expression	4.21 (1.54)[a]	4.20 (1.39)[a]			
Distress	Experience	3.90 (1.28)[a]	4.67 (1.06)[c]	83.30*	49.70*	58.53*
	Expression	2.89 (1.29)[b]	4.56 (1.26)[c]			
Embarrassment	Experience	3.68 (1.19)[a]	4.39 (1.10)[c]	148.12*	74.49*	69.13*
	Expression	2.41 (.98)[b]	4.11 (1.17)[d]			
Fear	Experience	3.19 (1.20)[a]	5.17 (1.00)[c]	456.98*	85.21*	108.89*
	Expression	1.92 (.73)[b]	5.30 (1.23)[c]			
Guilt	Experience	3.68 (1.17)[a]	4.54 (1.01)[c]	132.82*	54.18*	61.86*
	Expression	2.57 (1.03)[b]	4.42 (1.22)[c]			
Happiness	Experience	4.86 (.89)[a]	5.20 (.88)[c]	63.16*	7.71	62.06*
	Expression	4.27 (1.15)[b]	5.43 (1.12)[d]			
Interest	Experience	4.97 (1.08)[a]	5.00 (1.01)[a]	.13	20.38*	.01
	Expression	4.59 (1.18)[b]	4.63 (1.19)[b]			
Jealousy	Experience	5.03 (1.24)[a]	5.12 (1.05)[a]	3.34	29.78*	7.49
	Expression	4.33 (1.66)[b]	4.77 (1.33)[c]			
Love	Experience	4.25 (1.07)[a]	5.35 (1.12)[c]	169.56*	26.13*	71.71*
	Expression	3.34 (1.13)[b]	5.50 (1.24)[c]			
Pride	Experience	5.63 (.98)[a]	4.38 (.97)[b]	197.65*	3.89	13.03*
	Expression	5.74 (1.16)[a]	3.99 (1.22)[c]			
Sadness	Experience	3.56 (1.05)[a]	4.91 (1.02)[c]	353.08*	44.89*	149.91*
	Expression	2.40 (.89)[b]	5.19 (1.14)[d]			
Shame	Experience	3.61 (.92)[a]	4.18 (1.04)[c]	99.07*	109.79*	62.54*
	Expression	2.44 (.89)[b]	3.87 (1.26)[d]			
Shyness	Experience	3.53 (1.08)[a]	4.64 (1.12)[c]	117.40*	31.13*	21.60*
	Expression	2.85 (1.16)[b]	4.47 (1.32)[c]			
Surprise	Experience	4.07 (.86)[a]	4.64 (1.12)[c]	151.77*	21.62*	105.53*
	Expression	3.20 (1.01)[b]	4.92 (1.01)[d]			
Sympathy	Experience	3.59 (1.02)[a]	5.62 (1.05)[c]	490.32*	29.32*	70.38*
	Expression	2.81 (.94)[b]	5.76 (1.11)[c]			

Note: $N = 117$. Scores could range from 1 (low) to 7 (high). The *df* are (1,116) or (1,115) depending on missing data. Means with different superscripts differ significantly at the .05 level according to a Tukey's test.
*$p < .002$.

tions once again indicated that these gender differences were larger for the expression than the experience of these emotions. There was a Target Gender by Rating interaction for amusement such that men were believed to express amusement less often than they experienced it, and women were believed to experience it less often than they expressed it. There were no gender-related findings for contempt, distress, jealousy, or interest.

Comparison of Cultural Stereotypes and Personal Beliefs

The correlations between the cultural stereotypes and personal beliefs for male and female experience and expression of all 19 emotions were computed to examine the similarities between people's ratings. On average, the correlations were significant, but not so large as to indi-

Table 2

Mean Ratings and *F*-values for Personal Beliefs Regarding Men's and Women's Experience and Expression of Emotions in Study 1

Emotion	*Rating*	*Men (Mean* [SD])	*Women (Mean* [SD])	*Gender* (F)	*Experience/ Expression* (F)	*Interaction* (F)
Amusement	Experience	4.94 (1.00)[a]	4.37 (1.13)[b]	3.72	3.05	10.93*
	Expression	4.62 (1.31)[b]	4.97 (1.19)[a]			
Anger	Experience	4.81 (1.07)[a]	4.62 (1.10)[a]	25.29*	32.81*	17.06*
	Expression	4.65 (1.24)[a]	3.81 (1.28)[b]			
Awe	Experience	4.17 (1.07)[a]	4.53 (.94)[c]	44.47*	39.80*	32.45*
	Expression	3.30 (1.17)[b]	4.40 (1.08)[c]			
Contempt	Experience	4.45 (1.03)[a]	4.37 (1.13)[a]	2.25	49.35*	.39
	Expression	3.85 (1.21)[b]	3.68 (1.16)[b]			
Disgust	Experience	4.27 (1.19)[a]	4.62 (.96)[c]	86.41*	45.10*	53.75*
	Expression	3.19 (1.35)[b]	4.52 (1.10)[c]			
Distress	Experience	4.27 (1.19)[a]	4.67 (1.02)[c]	10.03	32.99*	.60
	Expression	3.89 (1.44)[b]	4.20 (1.22)[a]			
Embarrassment	Experience	4.55 (1.54)[a]	4.71 (.97)[a]	88.22*	133.11*	100.54*
	Expression	2.62 (1.09)[b]	4.23 (1.18)[c]			
Fear	Experience	4.39 (1.17)[a]	5.11 (.99)[c]	294.69*	202.52*	168.76*
	Expression	2.31 (.80)[b]	4.83 (1.11)[d]			
Guilt	Experience	4.17 (1.18)[a]	4.54 (1.01)[c]	125.03*	100.13*	97.76*
	Expression	2.60 (1.03)[b]	4.29 (1.21)[a]			
Happiness	Experience	5.16 (.98)[a]	5.27 (1.00)[a]	58.61*	8.27	57.35*
	Expression	4.44 (1.26)[b]	5.57 (1.02)[c]			
Interest	Experience	5.10 (1.08)[a]	5.12 (1.04)[a]	.12	49.29*	.03
	Expression	4.51 (1.41)[b]	4.56 (1.30)[b]			
Jealousy	Experience	5.15 (1.21)[a]	5.12 (1.18)[a]	2.09	67.01*	6.33
	Expression	4.07 (1.60)[b]	4.44 (1.37)[c]			
Love	Experience	4.74 (1.13)[a]	5.29 (1.00)[c]	125.50*	31.20*	64.71*
	Expression	3.65 (1.26)[b]	5.36 (1.24)[c]			
Pride	Experience	5.39 (1.08)[a]	4.70 (1.06)[b]	125.93*	23.36*	35.02*
	Expression	5.40 (1.31)[a]	3.87 (1.13)[c]			
Sadness	Experience	4.37 (1.03)[a]	4.92 (1.04)[c]	227.71*	97.36*	140.19*
	Expression	2.69 (.90)[b]	4.98 (1.12)[c]			
Shame	Experience	4.06 (1.06)[a]	4.21 (1.03)[a]	52.83*	117.39*	49.54*
	Expression	2.44 (.89)[b]	3.87 (1.26)[c]			
Shyness	Experience	4.18 (1.21)[a]	4.62 (1.12)[c]	74.17*	46.34*	52.36*
	Expression	3.10 (1.21)[b]	4.44 (1.92)[c]			
Surprise	Experience	4.34 (.97)[a]	4.69 (1.03)[c]	131.49*	50.21*	106.89*
	Expression	3.22 (.90)[b]	4.66 (1.09)[c]			
Sympathy	Experience	4.24 (1.06)[a]	5.32 (1.05)[c]	301.64*	46.19*	126.00*
	Expression	3.00 (1.10)[b]	5.44 (1.10)[c]			

Note: $N = 117$. Scores could range from 1 (low) to 7 (high). The *df* are (1,116) or (1,115) depending on missing data. Means with different superscripts differ significantly at the .05 level according to a Tukey's test.
*$p < .002$.

cate that the distinction between cultural stereotypes and personal beliefs was meaningless ($r = .45$, $SD = .11$, range $r = .14$ to $r = .73$).

STUDY 2

Study 1 presented compelling evidence that people are both aware of the cultural gender stereotypes of emotion and by and large endorse these stereotypes. Study 2 was designed to examine the influence of these stereotypes on the interpretation of emotional expression. If gender stereotypes of emotion have the same impact as other stereotypes, then they should lead to stereotype-consistent interpretations for ambiguous emotional expressions. In order to address these issues, Study 2 examined the interpretation of men's and women's unambiguous and ambiguous expressions of two emotions that are clearly gender linked: anger and sadness. Specifically, participants rated

men's and women's unambiguous angry and sad posed expressions and ambiguous posed blends of anger and sadness.

We were also interested in whether there were individual differences in the extent to which people process the expressions in a stereotype-consistent manner. For example, it is possible that people with strongly gender-stereotyped beliefs about emotion are more likely to interpret expressions in a stereotype-consistent manner than less gender-stereotyped people. In order to address this issue, personal beliefs about the gender stereotypes of emotion were examined.

Based on Study 1 and Condry and Condry's (1976) study, we predicted that poser's gender would not systematically influence interpretations of the unambiguous expressions, such that men and women would be interpreted as expressing sadness in the sadness pose and anger in the anger pose. In contrast, we expected strong effects of poser's gender on the interpretation of ambiguous expressions, such that if the poser was male the ambiguous blends would be interpreted as more angry and less sad than if the poser was female (Condry & Condry, 1976; Darley & Gross, 1983; Duncan, 1976).

METHOD

Participants

Respondents were 155 undergraduates (109 females) who participated for course extra credit. Of the participants, 145 (92%) were White, 3 (2%) were African American, 2 (1%) were Hispanic, 3 (2%) were Asian American, 1 (1%) was Native American, 1 (1%) was multiracial, and 2 (1%) indicated that they were "other."

Materials

Slides were taken of two men and two women making two unambiguous and two ambiguous (i.e., emotion blends) posed expressions of anger and sadness. The poses were based on Ekman's analysis of the muscles involved in facial expressions (i.e., the Action Units or AUs from Ekman and Friesen's Facial Action Coding System [FACS]; Ekman & Friesen, 1976, 1978). The unambiguous anger pose involved eyebrows drawn together and down (AU 4), upper eyelids raised (AU 5), mouth tightened (AU 23), and lips pressed together (AU 24 & AU 17). The sadness pose involved the inside corners of the eyebrows raised upward and together (AU 1 & AU 4), lip corners pulled downward (AU 15), with chin boss upraised (AU 17). Two anger/sadness blends were used for the ambiguous poses. Blend 1 consisted of an upper anger (AU 4 & AU 5) and lower sadness (AU 15 & AU 17) expression. Blend 2 consisted of an upper sadness (AU 1 & 4) and lower anger (AU 23, 24, & 17) expression.

All of the posers were skilled in posing for facial expressions and were certified in FACS. In order to ensure that the slides for each expression were comparable across poser (i.e., the posers were *only* moving the facial muscles involved in the AUs listed previously), several rounds of slides were taken, and slides were selected that were matched across poser using FACS coding for the AUs present and the intensity of the AUs.

Procedure

Participants were tested in a single session in a large lecture hall. They were shown 32 slides in random order and were asked to rate the extent to which each of four emotions was being expressed on a scale from 1 (*no emotion*) to 7 (*extreme emotion*). In addition to the 16 slides of interest, 16 additional slides of the posers expressing amusement, embarrassment, a blend of amusement and embarrassment, and a neutral expression were presented to examine a research question not discussed here. Based on findings from Study 1, participants rated the emotional expression of posers on two female-stereotyped emotions (sadness and sympathy) and two male-stereotyped emotions (anger and contempt). After rating the slides, participants completed a brief form of the PBQ, which asked participants how often they believed that men and women experienced and expressed eight emotions.[3]

RESULTS

Personal Beliefs

A 2 (Target Gender: male vs. female) × 2 (Ratings: experience vs. expression) repeated-measures ANOVA was conducted on the ratings of the four questions for each emotion, with repeated measures on both factors. The responses to the revised PBQ were virtually identical to the findings in Study 1; however, contempt was rated a male-stereotyped emotion.[4]

Stereotype Beliefs Measure

In order to explore whether participants' interpretations of the facial expressions were influenced by individual differences in stereotype endorsement, a stereotype beliefs measure (SBM) was created. For each of the six emotions with a significant gender difference on the CSQ from Study 1, a difference score was created for the ratings of men's and women's expression scores on the PBQ. For anger, women's expression score was subtracted from men's expression score. For female-stereotyped emotions, men's expression score was subtracted from women's expression score. These differences were then averaged and used as an index of the individual's degree of stereotype endorsement ($\alpha = .69$, $M = 1.51$, $SD = 1.09$). The SBM

scores could range from +6 to –6. A *t*-test conducted on SBM scores indicated that men and women reported similar stereotype endorsement, $t(157) = -.11$, *ns*. A median split was taken to separate those who stereotyped strongly from those who stereotyped less strongly.

Face Ratings

Means for anger and sadness for each pose were computed from the ratings of the two female posers' faces for each emotion, and a mean was computed from the ratings of the two male posers' faces for each of the emotions rated.[5]

Unambiguous Poses

Separate 2 (Poser Gender: male vs. female) × 2 (Rater Gender: male vs. female) × 2 (Rated Emotion: anger vs. sadness) x 2 (SBM: high vs. low) multivariate mixed-model ANOVAs were conducted on the ratings of the anger and sadness poses; Poser Gender and Rated Emotion were the repeated measures. There were no significant findings involving Rater Gender or SBM, and so the factors were dropped from all analyses reported here.[6]

The analysis of the anger pose revealed a main effect for Poser's Gender, $F(1, 154) = 23.14$, $p < .001$, and Rated Emotion, $F(1, 154) = 200.98$, $p < .001$. However, these main effects were qualified by a significant Poser Gender × Rated Emotion interaction, $F(1, 154) = 155.76$, $p < .001$. Post hoc Tukey tests revealed that participants rated the men's anger pose as more angry ($M = 5.44$, $SD = 1.40$) than women's anger pose ($M = 4.54$, $SD = 1.56$) and women's anger pose as more sad ($M = 4.03$, $SD = 1.57$) than the men's anger pose ($M = 2.37$, $SD = 1.43$). These findings indicate that, although the unambiguous anger pose was perceived as relatively clear anger when men displayed it, the pose was perceived as a blend of anger and sadness when women displayed it.

Examination of the pure sadness pose revealed main effects of Poser Gender, $F(1, 156) = 13.44$, $p < .001$, and Rated Emotion, $F(1, 156) = 1110.89$, $p < .001$. These main effects were qualified by a significant Poser Gender × Rated Emotion interaction, $F(1, 156) = 26.03$, $p < .001$. Post hoc Tukey tests revealed that, although women's and men's faces were rated similarly sad ($M = 5.70$, $SD = 1.16$ and $M = 5.81$, $SD = 1.17$ for women and men, respectively), women's faces were rated more angry than men's faces ($M = 2.44$, $SD = 1.35$ and $M = 1.83$, $SD = 1.16$ for women and men, respectively). These findings indicate that, although the sadness pose was perceived as clear sadness when men made it, women's poses were perceived as sadness with a slight indication of anger.

Ambiguous Poses

In order to determine whether people interpreted the faces in a stereotype-consistent manner, a 2 (Poser Gender: male vs. female) × 2 (Rater Gender: male vs. female) × 2 (Blend: blend 1 vs. blend 2) × 2 (Rated Emotion: anger vs. sadness) × 2 (SBM: high vs. low) multivariate mixed-model ANOVA was conducted on anger and sadness ratings of the blends with Posers' Gender, Blend, and Rated Emotion as repeated measures. No significant differences involving rater's gender or SBM were found, and so these variables were dropped from all reported analyses.

The analysis revealed main effects for Poser Gender, $F(1, 141) = 15.49$, $p < .05$, Blend, $F(1, 141) = 45.12$, $p < .05$, and Rated Emotion, $F(1, 141) = 42.92$, $p < .05$. These main effects were qualified by several interactions. Of central interest to the hypotheses, there was a Poser Gender × Rated Emotion interaction, $F(1, 141) = 72.93$, $p < .05$. Consistent with expectations, post hoc Tukey tests revealed that participants rated the men's blends as more angry ($M = 3.94$, $SD = 1.65$) than the women's ($M = 3.45$, $SD = 1.50$) and rated women's blends as more sad ($M = 4.88$, $SD = 1.51$) than the men's ($M = 3.92$, $SD = 1.62$). In addition, there was a Poser Gender × Blend interaction, $F(1, 141) = 6.42$, $p < .05$, and a Blend × Rated Emotion interaction, $F(1, 141) = 34.78$, $p < .05$.[7] The three-way interaction of Poser Gender × Blend × Rated Emotion was not significant, $F(1, 141) = .49$, *ns*, indicating that the interaction effects were similar across blend.

STUDY 3

As noted previously, Condry and Condry's (1976) findings suggest that adults make stereotype-consistent interpretations of infants' ambiguous expressions. One of the implications of the Condry and Condry study is that adults' gender stereotypes of emotion affect the socialization of children beginning in infancy. That is, children may learn from adults to label their emotional experience in a gender-stereotyped manner and, furthermore, this information may shape how they respond to emotion-eliciting experiences. Given the important implications of these findings, we replicated and expanded on Condry and Condry's (1976) study to examine whether infants' ambiguous expressions were interpreted in a stereotype-consistent manner. If this is the case, we expected that an infant's expression would be interpreted differently depending on the child's gender label. Specifically, we expected that a child labeled "girl" would be described as expressing more of a female-stereotyped emotion and less of a male-stereotyped emotion than the same child labeled "boy."

Studies 1 and 2 carry a limitation in that the participants were undergraduates. Perhaps adults in the childbearing years hold different stereotypes. In order to pursue this possibility and to improve the ecological validity of the research, we studied a highly relevant population: expectant parents. Because parents are precisely the ones who may invoke gender stereotypes in the socialization of their children's emotions, we assessed expectant parents' gender stereotypes of emotions and their interpretations of infants' emotional expression.

METHOD

Participants

Participants were 68 Lamaze class members (34 female, 97% expecting their first child) who volunteered to take part in the research. Of the participants, 66 (97%) were White and 2 (3%) were Asian American. Their ages ranged from 19 to 38 ($M = 29.5$).

Materials

A videotape was made of a child's reaction to a frustration stimulus that elicited an ambiguous anger/sadness expression.[8] On the videotape, a 9-month-old infant (actually a male), dressed in gender-neutral clothing, was playing with a card and the card was taken away by an off-screen adult. The child screamed and cried for the remainder of the footage. A FACS rating (Ekman & Friesen, 1976, 1978) of the infant's expression done by a certified rater revealed that the infant made a sad face (AUs 1, 4, & 6) followed by an angry face (AUs 4, 6, 10, 16, & 23). Pilot testing indicated that the infant was believable as a boy or girl.

Procedure

Participants were instructed, "This study seeks to determine how adept adults are at interpreting infants' emotional expressions." Half of the participants were told that they were going to watch Karen, a little girl, and half were told that they were going to watch Brian, a little boy. Participants were asked to write the name and gender of the infant on the response form to ensure that they were aware of the gender of the child in their condition. The names Karen and Brian are matched on several factors, including attractiveness (Kasof, 1993).

Following the video, participants rated the child's expression on a series of emotions on a scale from 1 (*not at all*) to 7 (*very much so*). The rated emotions were anger and sadness (the emotions relevant to the hypotheses), surprise (a female-stereotyped emotion), pride (a male-stereotyped emotion), and disgust (a gender-neutral emotion). Half the participants rated anger first and sadness last, and the other half rated sadness first and anger last. After watching and rating the videotape, participants completed the PBQ from Study 1.

RESULTS

Personal Beliefs

A 2 (Target Gender: male vs. female) × 2 (Ratings: experience vs. expression) repeated-measures ANOVA was conducted on the ratings of the four questions for each emotion, with repeated measures on both factors. Although the responses were virtually identical to the findings in Study 1, there were no gender differences for anger.

Stereotyped Beliefs Measure

To explore whether interpretations were influenced by individual differences in stereotypic beliefs about the emotions being displayed, the SBM used in Study 2 was created to assess stereotype endorsement ($\alpha = .63$, $M = 1.80$ $SD = .53$).

Ratings of Infant

Two three-factor analyses of covariance, 2 (Infant Gender Label: male vs. female) × 2 (Rater Gender: male vs. female) × 2 (SBM: high vs. low stereotyped) were conducted on anger and sadness ratings. For each of the analyses the mean rating on the other four emotions was used as a covariate to control for the extremity of people's rating tendencies.

In contrast to Condry and Condry's (1976) findings, there were no significant main effects for Infant Gender Label for either anger or sadness ratings. However, for ratings of anger, there was a significant Infant Gender Label × Rater's Gender × SBM interaction, $F(1, 56) = 4.15$, $p < .05$. A post hoc Tukey test indicated that high-stereotyped men tended to rate the male infant as more angry than they rated the female infant (see Table 3). In contrast, high-stereotyped women rated the male and female infant similarly. The low-stereotyped men and women rated the male and female infants similarly. For ratings of sadness, there were no significant main effects or interactions.

GENERAL DISCUSSION

Three studies examined the gender stereotypes of emotions and their relationship to the interpretation of emotional expression. The results indicated that people generally endorse the gender stereotypes of emotions. Specifically, women are believed to experience and express the majority of the studied emotions more often than men. Moreover, these gender stereotypes are consistent with adults' interpretations of emotional expressions. When adults interpreted men's and women's ambiguous anger/sadness blends and unambiguous anger poses, the men's expressions were interpreted as more angry and less sad than the women's equivalent expressions (Study 2). Furthermore, men who strongly endorsed the gender stereotypes of emotions interpreted an infant's ambiguous expression as more angry when the infant was labeled "boy" than labeled "girl" (Study 3).

Documenting the Gender Stereotypes of Emotion

Three studies demonstrated that undergraduate students and expectant parents, regardless of their gender, believe that men and women differ in their emotional expression and experience. The findings generally replicated previous studies of the gender stereotypes of emotions (Birn-

Table 3

Ratings of Infant's Anger (Study 3)

	High-Stereotyped		*Low-Stereotyped*	
Infant's Gender Label	*Women*	*Men*	*Women*	*Men*
"Female"	5.62 (1.45)[a]	3.20 (2.28)[b]	5.80 (.45)[a]	4.57 (1.91)
"Male"	4.25 (2.61)[a,b]	6.40 (.89)[a]	4.50 (1.52)[a,b]	4.00 (2.00)[a,b]

Note: Means with different superscripts significantly differ according to a Tukey post hoc test.

baum et al., 1980; Fabes & Martin, 1991; J. T. Johnson & Schulman, 1988) and provided the most complete list of gender stereotypes of emotions to date. Specifically, women are believed to experience and express awe, embarrassment, fear, distress, happiness, guilt, sympathy, sadness, love, surprise, shame, and shyness more frequently than men. Men are believed to experience and express anger and pride more often than women. Furthermore, the findings indicated that, although people believe that there are gender differences for both the experience and expression of these emotions, the differences are larger for expression than experience. Participants believed that men expressed the female-stereotyped emotions and women the male-stereotyped emotions less often than they experienced them, suggesting that men and women are believed to suppress the expression of emotions that are inconsistent with their gender role. This finding is consistent with accounts of socialized differences in emotion called display rules (Ekman & Friesen, 1969), which are "overlearned habits about who can show what emotion to whom and when they can show it . . . (for example) males should not cry; females (except in a maternal role) should not show anger" (Ekman, 1984, p. 320).

The expectant parents generally replicated the findings for the undergraduates on the gender stereotypes of emotions with one notable exception: Lamaze participants did not hold gender-stereotyped beliefs about anger (i.e., they believed men and women experienced and expressed anger with the same frequency). Wives have been found to be more expressive of negative emotions, including anger, than husbands (Notarius & Johnson, 1982). The couples' beliefs about anger may be the result of experiences in their relationships that contradict the anger stereotype.

In the current studies we also examined the cultural stereotypes about gender differences in emotion in order to document and compare them to personal beliefs. Participants' personal beliefs in all three studies closely resembled the cultural stereotypes from Study 1. In contrast to stereotype research in other areas (Devine, 1989; Devine & Elliot, 1995), people, by and large, endorsed the cultural stereotypes of emotions.

Interpretation of Emotional Expressions

The findings from Study 2 demonstrated that interpretations of adults' ambiguous emotional expressions were affected by the poser's gender in a stereotype-consistent manner. Specifically, women were rated higher on the female-stereotyped emotion, sadness; whereas men were rated higher on the male-stereotyped emotion, anger. These findings suggest that, in a manner consistent with the impact of stereotypes in other domains, stereotypes affect the interpretation of ambiguous emotional expressions. Participants in Study 2 likely categorized the poser according to her or his gender. Once categorized, expectations about the poser's gender, including cultural gender stereotypes of emotion, would have been activated (Fiske & Neuberg, 1990). The activated cultural gender stereotypes may have provided an implicit social context for interpreting the ambiguous emotional expressions.

In Study 2, women's poses were rated as expressing emotional blends when the expressions were intentionally unambiguous. This finding was particularly strong for the anger pose, which was interpreted in a stereotype-consistent manner. Although not anticipated, we believe the ratings of the anger pose speak to the strength of the gender stereotypes of emotion and the difficulty that people have coping with female expressions of anger. In our culture it is virtually taboo for women to express anger toward other adults (Ekman, 1984; Lerner, 1985). Alternatively, the closed-mouth anger pose may have been somewhat ambiguous (see Carroll & Russell, 1996); therefore, participants may have used gender stereotypes to aid in their interpretation.

These findings suggest that people make gender-biased interpretations of ambiguous as well as unambiguous emotional expressions based on the gender stereotypes of emotion. Beliefs about men's and women's emotional reactions may have implications for the roles that people feel best suit them (Grossman & Wood, 1993). In addition, stereotype-consistent interpretations of men's and women's emotional expressions may have extensive implications for dynamic social interactions and the maintenance and perpetuation of gender stereotypes of emotion. If men's and women's expressions are perceived through

the filter of gender stereotypes of emotion, then they will be viewed as confirming these stereotypes. Such stereotype confirmations may increase the perceiver's confidence in gender differences in emotional expression. In addition, the perceiver's interpretation will likely influence how the perceiver responds. Furthermore, this response may elicit the emotional expression from the target that the perceiver was expecting, thus resulting in a self-fulfilling prophecy (e.g., Darley & Fazio, 1980).

In contrast to the impact of gender on the interpretation of adults' expressions, the impact of gender on the interpretation of infants' emotional expressions was more complex. Specifically, in Study 3, only men who strongly endorsed the gender stereotypes of emotion rated the emotional expression of the infant differently based on the gender label. These findings provided only a partial replication of Condry and Condry's (1976). However, this is not surprising given Stern and Karraker's (1989) review of studies using paradigms such as ours, which found that simply knowing the gender of an infant did not consistently influence adults' reactions to the infant. In addition, these findings are consistent with previous work suggesting that fathers treat children in a more gender-stereotyped manner than mothers (Lytton & Romney, 1991) and that men, as more powerful members of society than women, tend to stereotype others more (Fiske, 1993; Keltner & Robinson, 1996).

Study 3's findings have implications for children's socialization. Parents teach children to label and regulate their emotional expression (Brody, 1985, 1993; Fivush, 1989; Saarni, 1993), and the data from Study 3 suggest that the stereotypes held by the socializers may have an impact on the labeling of the child's emotions. Research should examine whether parents who endorse gender stereotypes of emotions are more likely to teach their children to label their emotional expressions in a gender-stereotyped manner. The process of gendered socialization of emotion should be examined longitudinally in order to determine how and when children come to endorse the gender stereotypes of emotion and whether it leads to gender-stereotyped expression.

Our findings raise the question of why undergraduates by and large made stereotype-consistent interpretations of adults' emotional expressions, whereas only a subset of expectant parents made stereotype-consistent interpretations of the infant's expression. It is possible that there were characteristics of the adults' faces besides the facial muscles moved that led to different interpretations (e.g., size of eyes); however, this would be inconsistent with previous work showing that men's and women's facial expressions of basic emotions are interpreted similarly (Ekman et al., 1969). One possible explanation is the deliberate gender neutrality of the infant in Study 3. If participants were provided with gender cues for the infant in addition to the name and gender label (e.g., pink vs. blue clothes, baseball cap vs. bow in hair), more people might make stereotype-consistent ratings. Alternatively, people may be hesitant to attribute adult stereotypes to infants or may not believe that male infants tend to be angrier and less sad than female infants. There is some evidence that people believe that male and female infants are equally sad (Fabes & Martin, 1991).

CONCLUSIONS

In conclusion, our results document the existence of clear gender stereotypes of emotions and demonstrate that people's personal beliefs are consistent with these stereotypes. People interpret adults' ambiguous emotional expressions in a stereotype-consistent manner. These stereotyped interpretation effects were also found when participants viewed an infant's ambiguous emotions, although the results were found only among male participants who strongly endorsed gender stereotypes of emotions. These findings have important implications for social relations, the course of dynamic interactions, and the socialization of emotional expression.

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NOTES

1. The cultural generalizations and personal beliefs were counterbalanced in rating order in a later study and the order of the questionnaires was found to be irrelevant.
2. Though not of particular interest here, for both cultural stereotypes and personal beliefs there were main effects of Rating for most emotions, such that emotions were believed to be experienced more than they were expressed. See the tables for the results.
3. Four of the eight emotions (anger, sadness, sympathy, and contempt) were selected because they were the emotions rated for the target slides. The other four emotions (amusement, shame, embarrassment, and pride) were selected because they were of interest for another study.
4. The full PBQ results from Studies 2 and 3 are available on request from the first author.
5. Ratings of sympathy and contempt were also examined and showed effects of poser's gender consistent with the gender stereotypes of emotion. Only results for ratings of anger and sadness are reported because they were the emotions directly related to the facial displays.
6. All analyses were repeated using the more specific anger and sadness stereotype belief measures and showed no significant main effects or interactions involving these variables.
7. Post hoc tests of the poser gender × blend interaction indicated that participants rated the men's blend 1 as more emotional ($M = 4.20$) than the men's blend 2 ($M = 3.92$) to a greater extent than women's blend 1 ($M = 4.28$) was rated as more emotional than women's blend 2 ($M = 4.05$). Post hoc tests of the blend × rated emotion interaction revealed that, whereas participants rated blend 1 as similarly angry

($M = 4.19$) and sad ($M = 4.29$), they rated blend 2 as more sad ($M = 4.51$) than angry ($M = 3.20$).

8. We would have preferred to use a jack-in-the-box as Condry and Condry (1976) did. However, several infants were exposed to a jack-in-the-box and did not cry.

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