

Children's Stereotypes About Sex Differences in Emotionality

Dana W. Birnbaum,¹ T. A. Nosanchuk, and W. L. Croll

Carleton University

In spite of the egalitarian atmosphere of recent years, contemporary preschool children possess pronounced stereotypes about sex differences in emotionality. They associate anger with maleness, but associate happiness, sadness, and fear with femaleness. These stereotypes are similar to those held by adults, but are largely dissimilar to actual sex differences in emotionality. The impact and possible etiology of these stereotypes are discussed.

The belief that females are more emotional than are males is one of the most common findings in research on sex-role stereotypes (e.g., Rosenkrantz, Vogel, Bee, Broverman, & Broverman, 1968). This belief is of more than academic interest, as it frequently has important practical significance. Fidell (cited in Maccoby & Jacklin, 1974, p. 183), for example, found that female medical patients who had ambiguous symptoms were more likely to have their condition diagnosed as psychosomatic than were male patients who had equally ambiguous symptoms. Similarly, the testimony of females in legal cases has been known to be discounted by the judge because of his belief that a female's emotionality may interfere with her objectivity (Wright, 1977). Furthermore, the fluctuations in emotionality alleged to accompany the menstrual cycle have been used to argue that women may be less effective leaders than men (Bernard, 1976, p. 22) and that women may be more accident-prone than men (Tiger, 1971, p. 59). The belief that females are more emotional than males has even permeated the popular

¹All correspondence should be sent to Dana W. Birnbaum who is now at the Department of Psychology, University of Maine at Orono, Orono, Maine 04473.

media, where female characters are portrayed as being more emotional than their male counterparts (Czaplinski, 1972).

All of the existing data on stereotypes about sex differences in emotionality were obtained from surveys of people who were raised prior to the feminist movement of the late 1960s and 1970s. Consequently, it is not known whether the feminist movement has had an effect upon children raised in the presumably more egalitarian atmosphere of recent years. The present paper reports two experiments bearing on this issue. The first experiment assessed, in an unobtrusive way, contemporary children's stereotypes about sex differences in emotionality. The second experiment attempted to provide partial information about the etiology of the stereotypes that the children in Experiment 1 were found to possess. Both experiments used the multidimensional approach to the study of emotion that has been recommended by Allen and Haccoun (1976). This approach consists of measuring stereotypes about individual dimensions of emotion (e.g., anger, fear, happiness, and sadness) rather than about emotionality as a unified global entity.

EXPERIMENT 1

This experiment attempted to determine whether contemporary children possess sex-role stereotypes about four dimensions of emotion: anger, fear, happiness, and sadness. These particular dimensions of emotion were selected because it has been shown that preschool children are able to understand the meaning of these dimensions (Gates, 1923). The children were shown a series of line-drawn faces which were ambiguous with respect to gender, but which depicted various emotional states, and were asked to identify the sex and emotion of each face. Since the faces were sexually ambiguous, any tendency of the children to attribute a particular gender to a particular emotion would suggest that they do possess stereotypes linking sex and emotionality.

Method

Subjects. The subjects were 24 preschool children, 12 male and 12 female. They were all of middle-class backgrounds, ranging in age from 3 years to 5 years 1 month (mean age = 4 years 2 months).

Materials. The stimuli were 17 faces drawn in black ink on white posterboard (Figure 1). Each face was approximately 13 cm in diameter. In order to maximize the children's interest, the faces were described to the children as being puppy dogs, and canine-shaped ears were affixed to each

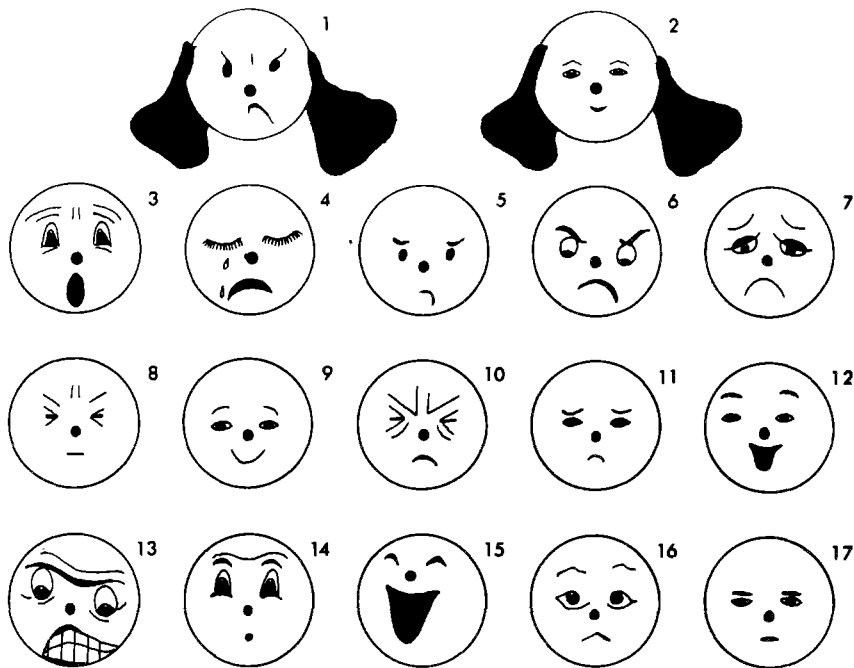


Fig. 1. The experimental stimuli used in the study.

face. (In Figure 1 the ears have been deleted from Stimuli 3-17 to save space.)

Procedure. Each child was individually invited to accompany the female experimenter to the testing room to play a game. After the child had been seated at the experimenter's side, he/she was told: "I have some puppy faces here, but I can't tell whether they are boy puppies or girl puppies—or how they feel, you know, whether they are happy or sad or angry or afraid. Do you think you can help me?" Each child was then asked to identify the sex ("Is this a boy puppy or a girl puppy?") and the expressed emotion ("How does he/she feel?") of each of the 17 stimulus faces. All responses, including any additional comments by the subjects, were manually recorded by the experimenter. Approximately 5 minutes were spent with each child.

Results

A separate analysis was conducted for each of the four emotions to determine whether the subjects tended to associate a given gender with that

emotion. The first step in this analysis consisted of identifying for each individual subject the particular stimuli that he/she labeled with that emotion. The proportion of these stimuli that the subject also labeled "female" was then determined, yielding a single score for each subject, viz., the conditional probability that the subject would label stimuli "female" given that he/she had labeled them with the particular emotion. If the subjects had no systematic tendency to associate a given gender with the emotion, then it would be expected that the mean conditional probability across subjects would be .50.

Preliminary analyses indicated that in the case of each emotion there was no significant difference between the mean conditional probability for male subjects and the mean conditional probability for female subjects. Consequently, the data from the two sexes were pooled for subsequent analyses. Table I gives the mean conditional probability and the standard deviation of the probabilities for each of the four emotions. For each of these emotions a two-tailed *t* test was conducted to determine whether the mean conditional probability differed from .50. In each case the null hypothesis was rejected: femaleness was negatively associated with anger ($t = -18.5$, $df = 23$, $p < .001$), whereas femaleness was positively associated with happiness ($t = 6.71$, $df = 23$, $p < .001$), sadness ($t = 4.16$, $df = 23$, $p < .001$), and fear ($t = 2.67$, $df = 8$, $p < .05$). Table II shows, for each emotion, the number of subjects whose conditional probability was numerically less than, equal to, and greater than .50.

EXPERIMENT 2

Experiment 1 showed that contemporary children do indeed possess stereotypes about sex differences in emotionality. Although there are numerous ways in which children might acquire such stereotypes, an obvious possibility is that adults possess the same stereotypes and instill them in their children. Experiment 2 was designed to determine whether adults as well as children possess these stereotypes.

Table I. Probability of Associating Femaleness with Each Emotion: Child Subjects

	Anger	Happiness	Sadness	Fear
\bar{X}	.06	.78	.76	.81
<i>SD</i>	.12	.20	.31	.35

Table II. Number of Preschool Subjects with Conditional Probabilities Greater Than, Equal to, and Less Than .50

Probability	Emotion			
	Anger	Happiness	Sadness	Fear
> .5	0	19	20	7
= .5	1	5	1	1
< .5	23	0	3	1

Method

Subjects. The subjects were 20 male and 25 female university students enrolled in introductory psychology courses.

Materials. Each subject received a booklet containing 17 pages. At the top of each page was one of the faces used in Experiment 1. Below the faces was a checklist on which the subject could indicate whether he/she thought the face at the top of the page was male or female and whether the emotion being depicted was anger, sadness, happiness, or fear. The order of the 17 faces in the booklet was randomized from subject to subject.

Procedure. The subjects, who were tested as a group, were told that a study was being planned to investigate children's abilities to identify gender and emotion from facial characteristics. The children would be shown puppy faces such as those in the subjects' booklet and would be asked to identify the gender and emotion of each face. The subjects were told that their task was to provide base-line data against which the accuracy of the children's responses could be judged. In reality, the intent of Experiment 2 was to determine whether the adults would, like the children, associate particular emotions with particular sexes. After the subjects had completed the 17 checklists they were informed of the true purpose of the experiment. No subject indicated suspicion regarding the purpose of the experiment.

Results

The data were analyzed in the same manner as were those in Experiment 1. As in Experiment 1, the mean conditional probabilities for male subjects did not differ significantly from those for female subjects, so the data from both sexes were pooled for subsequent analyses. Table III shows the means and standard deviations of the conditional probabilities. Female-ness was negatively associated with anger ($t = -5.70$, $df = 44$, $p < .001$), and was positively associated with happiness ($t = 3.62$, $df = 44$, $p < .001$) and with sadness ($t = 3.8$, $df = 44$, $p < .001$). Gender was not significantly

Table III. Probability of Associating Femaleness with Each Emotion: Adult Subjects

	Anger	Happiness	Sadness	Fear
\bar{X}	.29	.62	.63	.58
<i>SD</i>	.25	.23	.23	.37

related to fear ($t = 1.37$, $df = 43$, $p > .05$). Table IV shows, for each emotion, the number of subjects whose conditional probability was numerically less than, equal to, and greater than .50.

DISCUSSION

Experiment 1 suggests that contemporary preschool children do indeed have stereotypes about sex differences in emotionality: they associate anger with maleness, but associate happiness, sadness, and fear with femaleness. Furthermore, they appear to hold these stereotypes for real people and not just for make-believe characters such as the puppy dogs used in the present study. This conclusion is supported by comments that the children make while examining the faces, e.g., "Should be a boy, he's mad," "I'm sad and I'm a girl," "I always cry, so must be a girl," "My daddy's a boy and he's angry." Experiment 2 provides some information about the possible etiology of the children's stereotypes. It was found that adults, like children, tend to associate anger with maleness and to associate happiness and sadness with femaleness. It is possible that adults transmit these attitudes to their children explicitly (e.g., "Don't be a sissy—boys don't cry") or implicitly by selectively reinforcing only those emotional behaviors in their children that they feel are sex-appropriate. Although these possibilities appear not to have been directly investigated, it has been shown

Table IV. Number of Adult Subjects with Conditional Probabilities Greater Than, Equal to, and Less Than .50

Probability	Emotion			
	Anger	Happiness	Sadness	Fear
> .5	5	24	28	20
= .5	4	11	7	12
< .5	36	10	10	12

that adults' sex-role stereotypes can influence their assessment of children's behavior (e.g., Condry & Condry, 1976; Rubin, Provenzano, & Luria, 1974).

Although the adults' stereotypes about anger, happiness, and sadness were identical to the children's stereotypes, the adults did not show a similar stereotype for fear: numerically they associated fear with femaleness, but this effect did not reach significance. Several other studies, however, have found that adults believe females are more fearful than males (Maccoby & Jacklin, 1974, p. 189).

The fact that adults' stereotypes about sex differences in emotionality are largely consonant with those held by children lends support to the hypothesis that adults may instill their stereotypes in their children. Such data, however, do not provide conclusive support for this hypothesis because of their correlational nature. Observational studies in which parent-child interactions are observed to see whether parents do in fact respond differently to emotional displays depending upon the child's sex will provide a more definitive answer.

An alternative or additional source of the children's stereotypes could be their observation of actual sex differences in emotionality. Perhaps males are in fact more often angry than are females, while females are more often happy, sad, and fearful. If so, then the children's stereotypes might simply mirror behavior that they have observed in other children. The existing data, however, provide support for this hypothesis only in the case of anger. Boys do in fact show anger more often than do girls (Maccoby & Jacklin, 1974, p. 180). In the case of fear, happiness, and sadness, the existing data suggest there are no differences between boys and girls (Maccoby & Jacklin, 1974, pp. 182-190, 352, 449).

The results of the present studies suggest that several conclusions may be warranted. First, contemporary preschool children possess definite stereotypes about sex differences in emotionality—even though they were raised in the presumably egalitarian atmosphere of the feminist movement. In this regard, it should be emphasized that the children who were studied in Experiment 1 came primarily from middle-class and professional families. There is some reason to believe that children from lower-class families may possess even stronger stereotypes than those revealed in the present research (Rabban, 1950). Second, the children's stereotypes appear to resemble adults' stereotypes more closely than they resemble actual sex differences in emotionality. This suggests that the children's stereotypes may result more from parents transmitting their own attitudes to their children than from the children observing actual sex differences in emotionality. Although the existing data are consistent with this conclusion, the data are not extensive. Consequently, additional data on the etiology of the children's stereotypes

are needed before a definite conclusion can be reached. Third, the present data provide support for Allen and Haccoun's (1976) assertion that stereotypes about emotionality are best investigated by a multidimensional approach in which different dimensions of emotionality are investigated separately. Many early studies of sex-role stereotypes simply asked subjects to indicate whether males or females are more emotional. The present results suggest, however, that this is too global a question since males were viewed as being more emotional along one dimension (anger) while females were viewed as being more emotional along other dimensions (fear, happiness, and sadness).

Finally, the fact that both children and adults appear to possess pronounced (and only partially correct) stereotypes about sex differences in emotion has implications for a related area of research: accuracy of emotion perception. Studies in this area typically use a procedure in which one or more actors are asked to portray various emotions, their attempts are then photographed, and finally subjects attempt to identify the emotions being portrayed. Rarely do these studies replicate the procedure for actors of both sexes (notable exceptions are Black, 1969; and Staffieri & Bassett, 1970). If, as the present results suggest, people tend to attribute certain emotions to males and others to females, then accuracy of emotion identification might well be dependent upon the sex of the actor. Consequently, it would seem advisable that future studies in the area of emotion perception include actors of both sexes.

REFERENCES

- Allen, J. G., & Haccoun, D. M. Sex differences in emotionality: A multidimensional approach. *Human Relations*, 1976, 29, 711-722.
- Bernard, J. Sex differences: An overview. In A. G. Kaplan & J. P. Bean (Eds.), *Beyond sex-role stereotypes: Readings toward a psychology of androgyny*. Boston: Little, Brown, 1976.
- Black, H. Race and sex factors influencing the correct and erroneous perception of emotion. *Proceedings of the 77th Annual Convention of the American Psychological Association*, 1969, 4, 363-364. (Summary)
- Condry, J., & Condry, S. Sex differences: A study of the eye of the beholder. *Child Development*, 1976, 47, 812-819.
- Czaplinski, S. M. *Sexism in award winning picture books*. Pittsburgh: KNOW, 1972.
- Gates, G. S. An experimental study of the growth of social perception. *Journal of Educational Psychology*, 1923, 14, 449-462.
- Maccoby, E. E., & Jacklin, C. N. *The psychology of sex differences*. Stanford, Calif.: Stanford University Press, 1974.
- Rabban, M. Sex role identification in young children in two diverse social groups. *Genetic Psychology Monographs*, 1950, 43 (1), 81-158.
- Rosenkrantz, P. S., Vogel, S., Bee, H., Broverman, I., & Broverman, D. M. Sex-role stereotypes and self-concepts in college students. *Journal of Consulting and Clinical Psychology*, 1968, 32, 287-295.

- Rubin, J. Z., Provenzano, F. J., & Luria, Z. The eye of the beholder: Parents' views on sex of newborns. *American Journal of Orthopsychiatry*, 1974, 44, 512-519.
- Staffieri, J. R., & Bassett, J. E. Birth order and perception of facial expressions. *Perceptual and Motor Skills*, 1970, 30, 606.
- Tiger, L. The possible biological origins of sexual discrimination. In C. F. Epstein & W. J. Goode (Eds.), *The other half: Roads to women's equality*. Englewood Cliffs, N.J.: Prentice Hall, 1971.
- Wright, J. Witness disqualified, says judge. *Ms.*, March 1977, 5 (9), 22.