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ABSTRACT

The emotional impact of televised interpersonal dramas was investigated, with specific emphasis being given to age- and gender-related differences in children's spontaneous nonverbal expressive reactions. Participants were 27 female and 22 male children in three age groups: 4-5, 7-8, and 13-14 years. Facial expressions were unobtrusively videotaped in a 45-minute session in which subjects viewed a series of televised vignettes portraying dramatic interpersonal interactions expected to elicit positive (euphoric) or negative (dysphoric) emotional responses in viewers. Variables scored were affect valence, overall affect, and type of affect evoked. Both younger groups displayed significantly more affect than did the oldest group, and mean affect displayed per episode decreased monotonically with age. Furthermore, girls displayed significantly more affect than did boys. Although the mean affect valence displayed for episodes was similar across ages, boys displayed less negative affect than did girls. Gender-related differences were also observed when facial expressions were coded into specific affect categories. The most notable changes with age were decreases in expressions coded as "afraid" and increases in expressions coded as "sad." It was concluded that findings offer support for views of differential socialization of affect with age and according to gender. (RH)

RESEARCH DISPLAY PRESENTATION, S.R.C.D., TORONTO, APRIL, 1985

DEVELOPMENTAL CHANGES IN NONVERBAL AFFECT EXPRESSION

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The emotional impact of televised interpersonal dramas was investigated, with specific focus on age- and gender-related differences in children's spontaneous nonverbal expressive reactions. Children's (27 F, 22 M ; aged 4-5, 7-8, and 13-14 years) facial expressions were unobtrusively videotaped in a 45min. session in which they viewed a series of televised vignettes portraying dramatic interpersonal interactions expected to elicit positive (euphoric) or negative (dysphoric) emotional responses in viewers.

Based on research concerning socialization of emotion displays (Shennum & Bugental, 1982; Saarni, 1979)), as well as on increasing cognitive controls, decreases in affect expressive displays were expected with age. In addition, based on prevailing social roles or stereotypes, males were expected to show less affect expression than females, with effects most apparent for dysphoric affect, particularly fear and sadness, rather than anger.

Both attention (1=yes, 0=no) and facial expressions were coded across 10sec. intervals by independent judges (72% - 98% agreement across categories) for communication of affect valence: a 5-point coding continuum ranging from dysphoric (-2, -1), to neutral (0), to euphoric (1,2). Overall affect was scored using the same data continuum, but disregarding the directional sign.

In addition, at the end of preselected episodes (n = 32), judges assigned affect displayed for that episode to 1 of 8 affect categories, based on familiarity with their prototypical facial movements (Izard, 1979): neutral, happy, sad, angry, afraid, disgusted, and concerned (the latter used only if previous categories seemed inappropriate, yet coders agreed that "distressed interest" was displayed).

Results pertaining to stimulus vignettes confirmed that stimulus materials had been appropriately selected, with most vignettes chosen to elicit dysphoric affect. Children's mean expressive responses to vignettes previously chosen by a panel of adult viewers as "dysphoric" were -.53 (max. =2), "somewhat dysphoric" were -.26, "somewhat euphoric" were .04, and "euphoric" were .41. Affect categories coded for children's expressions also generally confirmed expectations regarding prevalent emotions portrayed.

Children's attention to stimuli was uniformly high: mean =.97, with only one intentionally inserted episode (in which children viewed a blank screen) coded as substantially below this mean (=.51). Further results confirmed both age- and gender-related hypotheses in preliminary analyses of absolute affect displayed, that is, the amount of overall affect shown, regardless of valence.

Both younger groups displayed significantly more affect than did the 13-14 year-olds, $t = 3.1$, $p < .01$ for 4-5 year-olds, $t = 3.4$, $p < .01$ for 7-8 year-olds, compared with teenagers. Mean affect displayed per episode decreased monotonically with age: Group 1 = .61, Group 2 = .56, Group 3 = .40). Furthermore, girls (mean = .62)

displayed significantly more affect than did boys (mean = .45), $t = 2.82$, $p < .01$.

Although younger children were more visibly expressive, mean affect valence displayed for episodes was similar across ages, indicating that the general euphoric or dysphoric "message" conveyed by facial expressive responses to these stimuli was similar across the age span. However, there was a significant sex difference, with boys (mean = -.19 per episode) displaying less negative affect than girls (mean = -.31), $t = 2.35$, $p < .05$. Sixteen of 21 boys (76%), contrasted with 8 of 27 girls (30%), had affect valence means ranging in the "mildly negative" quartile of present scores (0 to -.25); whereas only 33%of boys, contrasted with 63% girls, showed more prevailing negative displays.

Gender-related differences were also observed when facial expressions were coded into specific affect categories. Frequencies, converted to ranks across 8 affect categories, showed significant gender differences ($z = 3.89$, $p < .001$; or Friedman 2-way analysis of variance by ranks, $x2 = 77$, $df = 7$, $p < .0001$). The most notable difference occurred, as expected, for the category "afraid" (mean for girls = 5.4; for boys = 2.2). Other affect categories were similar across children, with boys' displays of "angry" (mean = .78) only somewhat higher than those of girls (mean = .55)

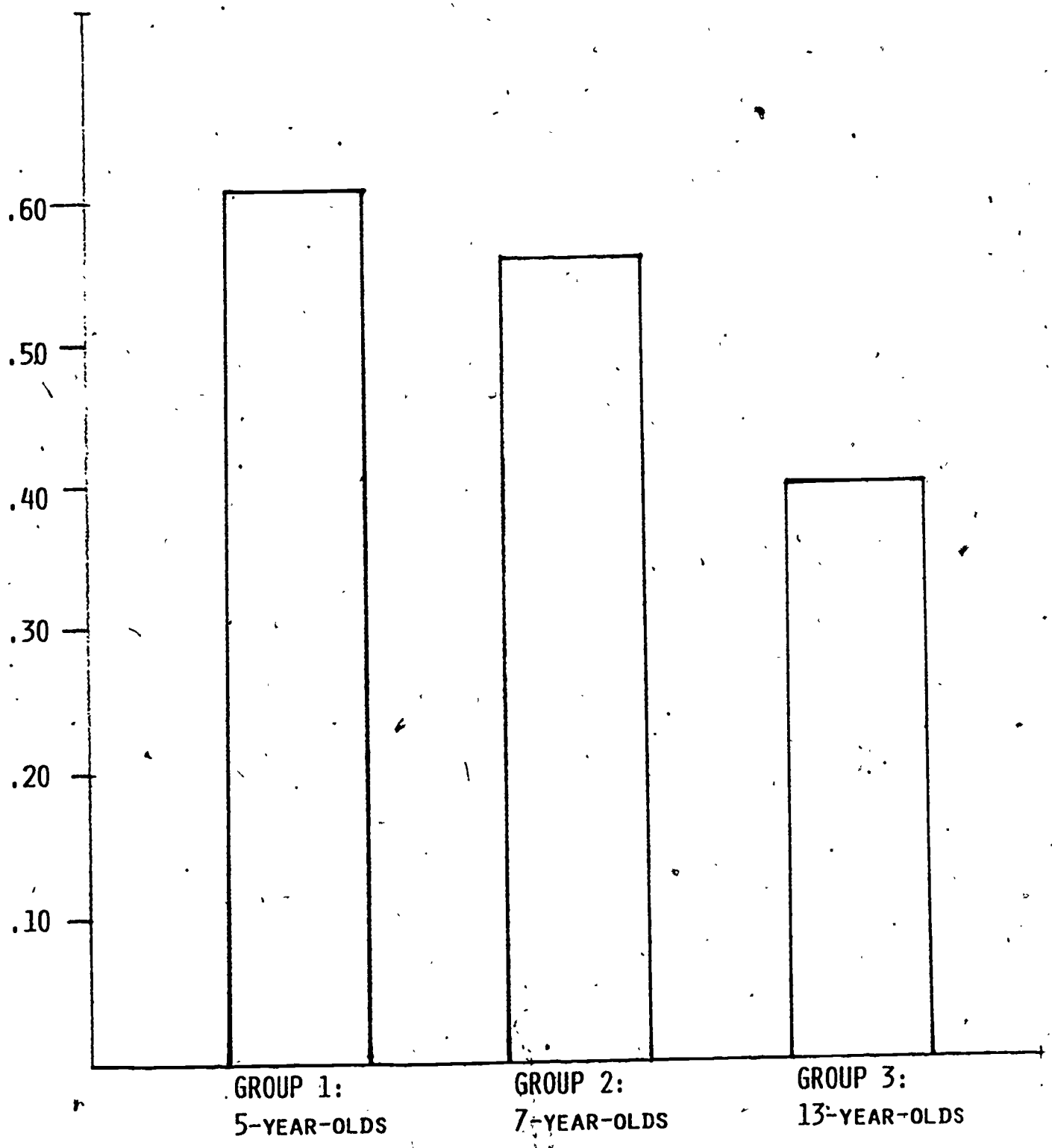
Finally, significant age differences in affect categories were also observed as a function of children's age (Friedman's 2-way analysis of variance by ranks, $x2 = 124$, $p < .0001$). The most notable changes with age were decreases in expressions coded

as "afraid" (means for Group 1 = 5.7, Group 2 = 3.9;Group 3 = 3.1), and increases in expressions coded as "sad" (means for Group 1 =3.1, Group 2 = 5.8, Group 3 = 4.4).

Present findings suggest support for views of differential socialization of affect with age and according to gender. Older children appear to display less affect, and boys display less affect, particularly fear, than do girls. Increasing cognitive controls, as well as socialization pressures, are likely to account for age effects noted. The gender-related findings are interpreted as due to socialization effects on children, as well as, possibly, on adult judges who may interpret children's expressions in gender-specific ways. Present findings also have implications for social communication and affective development, as well as extensions to research on empathy, considered as vicariously aroused affect in response to perceived affect in others.

MEAN NONVERBAL AFFECT DISPLAYED IN RESPONSE TO T.V. VIGNETTES

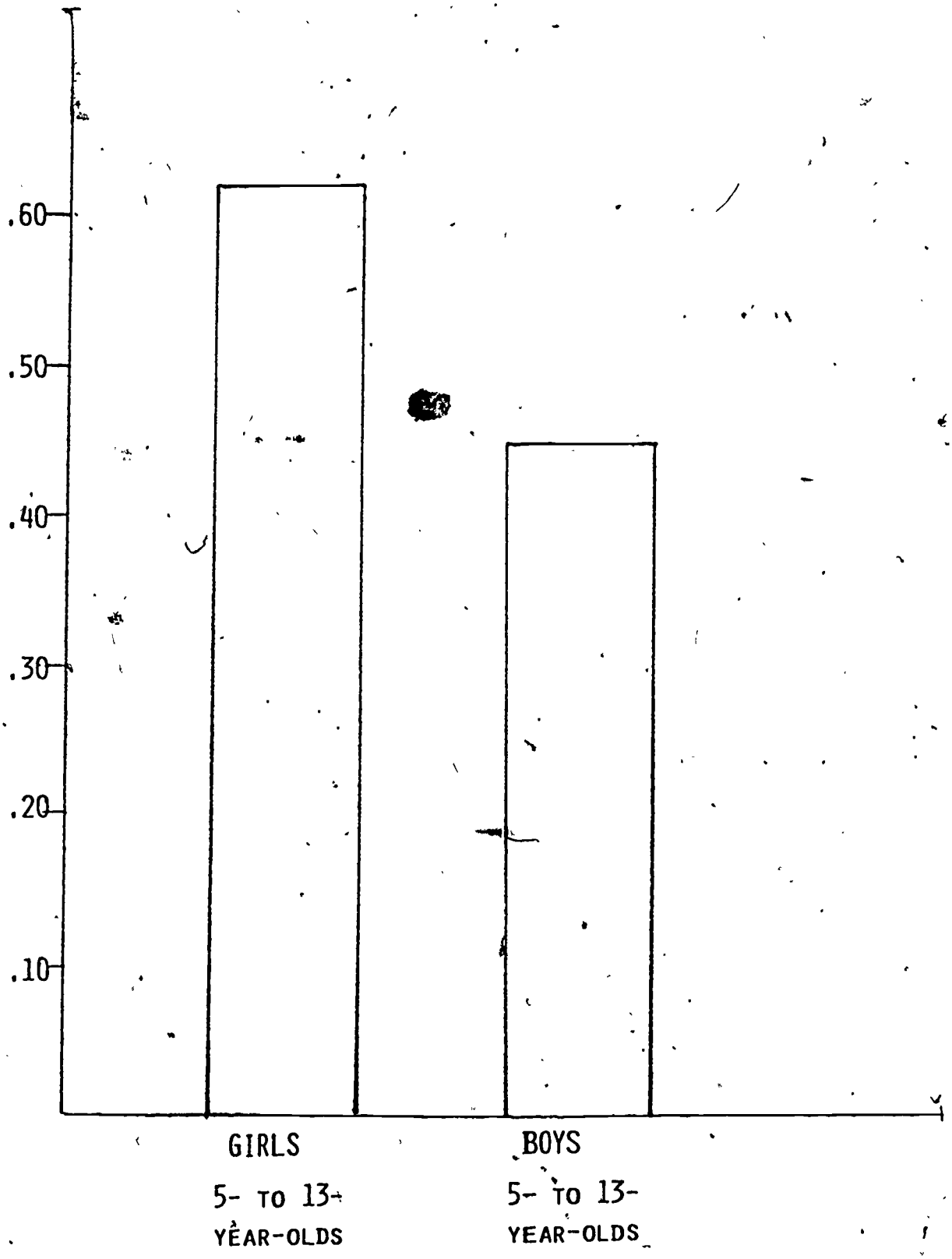
AS A FUNCTION OF AGE



CHILDREN'S NONVERBAL AFFECT EXPRESSION....J. STRAYER...SRCD, 1985

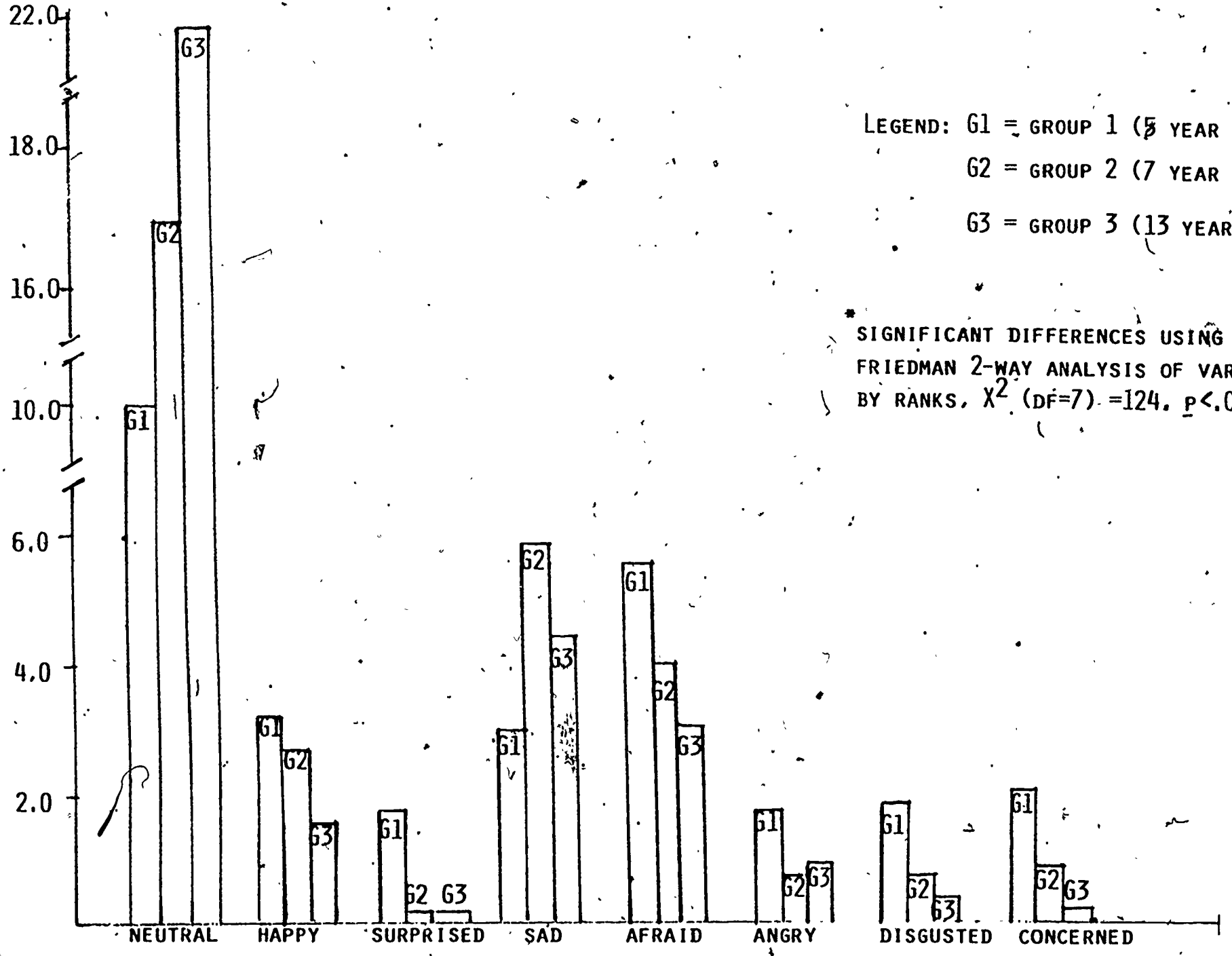
MEAN NONVERBAL AFFECT DISPLAYED IN RESPONSE TO T.V. VIGNETTES

AS A FUNCTION OF GENDER



CHILDREN'S NONVERBAL AFFECT EXPRESSION...J.STRAYER...SRCD, 1985

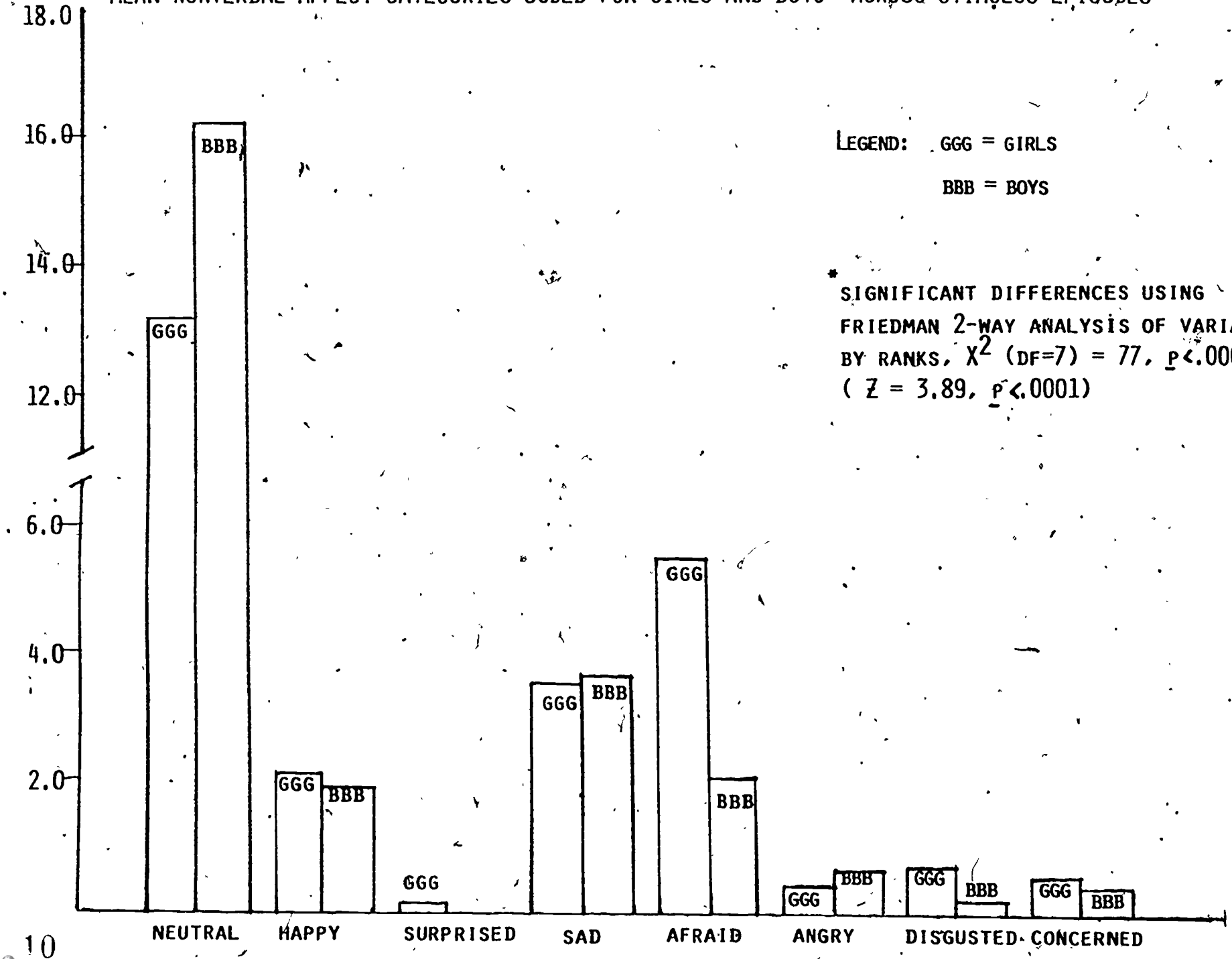
MEAN NONVERBAL AFFECT CATEGORIES CODED FOR THREE AGE GROUPS ACROSS STIMULUS EPISODES



LEGEND: G1 = GROUP 1 (5 YEAR OLDS)
G2 = GROUP 2 (7 YEAR OLDS)
G3 = GROUP 3 (13 YEAR OLDS)

SIGNIFICANT DIFFERENCES USING FRIEDMAN 2-WAY ANALYSIS OF VARIANCE BY RANKS, X^2 (DF=7) =124, $p<.0001$

MEAN NONVERBAL AFFECT CATEGORIES CODED FOR GIRLS AND BOYS ACROSS STIMULUS EPISODES*



LEGEND: GGG = GIRLS

BBB = BOYS

* SIGNIFICANT DIFFERENCES USING FRIEDMAN 2-WAY ANALYSIS OF VARIANCE BY RANKS, X^2 (DF=7) = 77, $p < .0001$ ($Z = 3.89$, $p < .0001$)

... NONVERBAL AFFECT EXPRESSION ... J. STRAYER ... SRCD 1985