An important task for children is to acquire their culture's rules for emotional display. Accurate knowledge of display rules prescribing, for example, safe targets for anger or indelicate situations for excitement helps regulate expressive behavior and mediate the impact of emotional expression on the self and others. In this study, children's knowledge of affective display rules was investigated. A sample of 7-, 11-, and 15-year-old children (N=370) and one each of their parents responded to items representing display rules for emotional expression and control. Analyses indicated that display rule knowledge improved with age. There was also a greater perception of adult consensus about control than expression rules among parents and children, and children knew the adult consensus for control rules earlier than for expression rules. Females knew expression rules better than males, but there was no difference in females' and males' knowledge of control rules. Knowledge of expression rules may emerge later than control rules because of the developmental pattern of related social-cognitive abilities and because adults may exert more pressures on children to control than to express emotion. Gender-related findings were consistent with societal expectations about expressive females and suggested males and females are equally encouraged to learn rules for controlling emotional displays. (ABL)
CHILDREN'S KNOWLEDGE OF DISPLAY RULES FOR
EMOTIONAL EXPRESSION AND CONTROL

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Running Head: Children's Knowledge of Display Rules
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Abstract

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rules for emotional expression and control. Analyses indicated that display rule knowledge
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CHILDREN'S KNOWLEDGE OF DISPLAY RULES FOR
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Introduction

An important task for children is to acquire their culture's rules for emotional display. Accurate knowledge of display rules prescribing, for example, safe targets for anger or indelicate situations for excitement helps regulate expressive behavior and mediate the impact of emotional expression on the self and others (Cole, 1985; Gnepp & Hess, 1986; Saarni, 1982; Shennum & Bugental, 1982; Zivin, 1986). Developmental delay in learning or failure to learn display rules adequately has been linked to loss of face or self-esteem (Saarni, 1979; Strayer, 1986), intrapsychic or emotional maladjustment (Saarni, 1982; Taylor & Harris, 1984), and the compromising of social relationships or standards for social behavior (Gnepp & Hess, 1986).

Newer theories allowing socialization (Lewis & Michalson, 1983; Lewis & Saarni, 1985) as well as biological influences (Tomkins, 1979; Izard, 1977; Zivin, 1986) on emotional development support the affective display rule construct. First described by Ekman and Friesen (1969), display rules may now be the most readily agreed upon concept among developmental emotion theorists of either persuasion (Zivin, 1986). However, the number of relevant empirical studies is rather small. The present study aims to further understanding of children's display rule knowledge by investigating the types of rules that are learned at different ages by boys and girls and the contexts for such learning.

Developmental research on display rules includes cross-cultural studies demonstrating group differences in affective regulation (e.g., Harkness & Super, 1985; Lutz, 1985; Matsumoto & Ekman, 1989) and studies showing a developmental progression in children's knowledge, reasoning about, and use of a few, individual display rules (Cole, 1985, 1986; Saarni, 1979, 1982, 1984; Strayer, 1985; Taylor & Harris, 1984). Generally, the latter research has focused on rules for controlling disappointment when receiving an age-inappropriate gift and has demonstrated age-related decreases in negative affective displays and increases in incidences of spontaneous references to and complexity of reasoning about display rules among children three to 10 years of
CHILDRREN'S KNOWLEDGE OF DISPLAY RULES

age. Harris, Olthof, and Terwogt (1981) concluded that there is a marked shift in children's knowledge of emotion, including the regulation or control of emotion, between six and 11 years, but not thereafter. Gnepp and Hess (1986) also reported little increase in children's understanding of display rules between 10 and 15 years of age. However, these are the only two such studies we know of which include adolescents, suggesting the issue of whether emotion knowledge progresses past middle childhood is still open to question. In this study of 7-, 11-, and 15-year-olds, we expected a linear increase with age in children's knowledge of display rules.

There has been some effort by researchers to go beyond the study of a few, individual display rules to the conceptualization and investigation of different types of rules. Such studies have focused on the development of knowledge and usage of rules for controlling displays of positive versus negative affect (Shennum & Bugental, 1982), rules for verbal versus facial displays of emotion (Gnepp & Hess, 1986; Shennum & Bugental, 1982), and rules for controlling emotions for prosocial versus self-protective motives (Gnepp & Hess, 1986; Saarni, 1979). Research about display rule types has generally shown that, when asked, children can control displays of negative affect before those of positive affect and facial displays of emotion earlier than verbal displays (Shennum & Bugental, 1982). However, children learn when to apply verbal display rules before they learn when to apply facial display rules (Gnepp & Hess, 1986). Conflicting results involving display rules controlling emotions for prosocial versus self-protective motives have also been found. Gnepp and Hess (1986) reported earlier understanding of prosocial rules protecting others and Saarni (1979) found that knowledge of self-protective rules emerged first.

Studies of the developmental patterns associated with acquisition of different display rule types are a promising approach to the investigation of children's display rule knowledge. Such research offers a way of uncovering socialization priorities and processes that operate in this area of development and may suggest the types of social-cognitive abilities that are necessary for display rule acquisition. Age-related knowledge patterns of contrasting display rules types could elucidate which rules children are encouraged by adults to know and/or which rules are possible...
for children to know at different ages. Deficits in display rule knowledge might be related to adults' values and practices regarding their children's expressive behavior and the profile of social-cognitive abilities available at any age to uncover what social conditions and cognitions must be operative for specific types of display rules to be acquired.

One of the limitations of the existing research on children's knowledge of display rule types is that it has focused rather exclusively on rules about controlling, but not expressing emotion (Cole, 1985; Saarni & Harris, 1989; Strayer, 1985). Meanwhile no theoretical argument has been advanced suggesting that emotional control but not veridical expression of emotion is socially regulated. In the present study, we sought to remedy this situation by examining whether rules for expressing true feelings are as ecologically valid as rules for controlling (i.e., masking or dissimulating) feelings. We predicted that rules for both emotional expression and control would be recognized by children and adults, although perceived societal consensus about rules for emotional control would be greater than for emotional expression. It is our surmise, and no data we know of suggest otherwise, that socialization practices have only recently encouraged children to express how they really feel, while pressures for children to control their emotions (i.e., to be seen and not heard) are probably as old as childrearing itself. Emotional expression occurs spontaneously from infancy, and the first order of socialization business may be to influence the control of emotional displays. Later interest may turn to how genuine emotion can be expressed in socially appropriate ways. We expected that this relatively recent historical shift in interest in children's expressing their feelings would lead to less perceived consensus about the rules for emotional expression as compared to those for emotional control. Further, we predicted that display rules for emotional control would be learned earlier than those for emotional expression. Less societal consensus for expression than control rules could lead to lack of clarity about which expression rules should be or how important expression rules are to be learned relative to control rules.

No research on display rules has particularly focused on the issue of gender differences in display rule acquisition, although almost all such studies have included analyses by gender. The
CHILDREN'S KNOWLEDGE OF DISPLAY RULES

findings generally reveal that, while there are no gender differences in understanding of display rule usage (Saarni, 1979), there are gender differences in actual implementation of some display rules by preschool age. Cole (1985) found that, among children three to nine years of age, females attempt to control the display of negative emotion with positive displays more so than males. Maccoby (1990) also reports differences in interactive styles among boys and girls, particularly when children play in same-sex groups, that suggest greater implementation of display rules controlling direct emotional expression among girls than boys.

Saarni (1982) concludes that gender differences in display rule usage may well involve situational constraints, i.e., boys or girls may regulate their expressive behavior more or in different ways depending on the situation. Brody (1985) concurs that girls and boys may control emotional displays somewhat differently, particularly for specific emotions. For example, Shennun and Bugental (1982) reported that boys learn facial inhibition of negative affect to a greater extent than girls, with boys providing a very close fit to their baseline neutral expressive behavior by ages 10 to 12 in situations where they are likely to experience negative affect. However, Saarni (1982) found a more prevalent dissimulation of negative affect among girls than boys, with girls substituting positive displays of niceness, pleasantness, and agreeableness for negative affect such as anger.

The findings for gender differences in display rule usage suggest that girls and boys may have differential knowledge of rules for controlling emotional displays, depending on the controlling strategy advocated by the rules. Or, alternatively, there may be no gender differences in knowledge of control rules, despite gender differences in display rule usage, given the lack of knowledge differences in previous research on display rules with boys and girls. We expected that previous findings of differential usage were probably not due to differential knowledge of control rules among girls and boys. Boys and girls should know control rules equally well because these rules are socialized early and forcefully for both genders.

The formulation of an hypothesis for gender differences in children's knowledge of expression rules was made in the absence of research on children's knowledge or use of display
CHILDREN'S KNOWLEDGE OF DISPLAY RULES

rules advocating veridical emotional expression. There is, however, some related evidence of gender differences in expressive behavior among adults showing that females are better decoders and encoders of nonverbal affective expressions than males (Brody, 1985; Hall, 1979; Rosenthal & DePaulo, 1979). Explanations for such male and female differences have not been very compelling (Babchuk, Hames, & Thompson, 1985; Ganong & Coleman, 1985; Hall, 1979; Francis, Lombardo, & Simon, 1987; Noller, 1986; Rosenthal & DePaulo, 1979) and have recently been assailed as more reflective of cultural views of emotion and women than actual gender differences (Lutz, 1990). However, traditional gender stereotypes would also suggest that females are generally socialized to attend to the emotional expressions of others more assiduously than males, leading to our prediction, in this study, that girls would know expression rules better than boys.

In our search of the existing empirical base on display rules, we were impressed that only a very few studies related to processes or contexts for display rule acquisition were to be found, and these of infants or college students but not school-aged children. Balswick and Avertt (1977) and Malatesta and Haviland (1982) found positive relationships between the expressiveness of parents and college students and mothers and infants, respectively. Halberstadt (1984, 1986) also showed that family styles of emotional expression have a differential effect on college students' nonverbal communication styles and skills. She concluded that the influence of family socialization on the developing emotional expression of family members has a lasting impact. We concur that the family is probably a primary source of learning about rules for emotional expression and control and predicted, in this study, that children's knowledge of display rules should be more similar to that of their parents than a group of unrelated adults.

The purpose of the present study was to increase understanding about children's knowledge of display rules in several ways. First, an attempt was made to add to existing work that has so far emphasized rules about control or dissimulation rather than expression of genuine emotion. Children's and adults' schemes for categorizing a relatively large number of dimensionally varied display rules were identified, thereby assessing the ecological validity of rules
advocating emotional expression as well as control. The developmental course of knowledge about display rules for emotional expression and control among children of three different ages was also investigated. Two age groups (7- and 11-year-olds) were chosen between which a shift in emotion knowledge has been shown to occur (Harris et al., 1981), as well as an adolescent age group (15-year-olds) that has been understudied in this area of development. The study further provided another look at gender differences in understanding of affective display rules. Of particular interest was whether males and females would show differences in their knowledge of expression rules, along the lines of previous research on gender differences in decoding expressive behavior and cultural sex-role stereotypes, and whether males and females would know control rules equally well. Finally, the relative importance of the family as a source of information about display rules for children was investigated, by comparing children's display rule knowledge to that of their parents as well as to that of a larger sample of unrelated adults.

In addition to the expectation that adults and children would recognize and categorize display rules as two basic types, rules for emotional expression and rules for emotional control, several relationships among display rules, age, and gender were hypothesized: (1) children will estimate the adult consensus on display rules better with increasing age; (2) a greater adult consensus will be estimated by children and adults regarding display rules for emotional control than for emotional expression; (3) children will more closely estimate the adult consensus on display rules for emotional control at earlier ages than for emotional expression; (4) females will more closely estimate the adult consensus on display rules for emotional expression than will males, and males and females will estimate the adult consensus on display rules for emotional control equally well; and (5) children will more closely approximate their parents' knowledge of display rule consensus than that of a large sample of unrelated adults.

Methods

Participants

Participants in a larger study, for which the children included in this study are a subsample, were 1,692 second, sixth, and tenth grade children, about evenly divided by grade and gender.
The median and modal ages for children in each grade were 7, 11, and 15 years, respectively, while the ranges were 6 years 7 months to 8 years 6 months, 10 years 7 months to 12 years 6 months, and 14 years 7 months to 16 years 6 months, respectively. Children attended 42 Southern California schools with predominantly middle class student populations. Testing occurred during the 1986-1987 school year. Eighty-three percent of the participants were European-American and the remaining 17 percent were about evenly divided among Hispanic-American, African-American, Asian-American, and mixed and other ethnicities.

Children had parental permission to participate and gave their own informed consent. One parent of each participating child had also consented to participate in the larger study; 1,270 (75%) of these parents did so. Among the group of participating parents, 84% were mothers and 16% were fathers.

To test hypotheses in the present study, a subsample of children and one each of their parents was selected to balance the number of mothers and fathers and the age and gender of their children. All fathers (N=185) and their children (N=185) were included in the subsample as well as an equal number of randomly drawn mothers (N=185) and their children (N=185). The final subsample of 370 children was about evenly divided by children's age and gender within parent gender, with somewhat more 11- and 15-year-olds than 7-year-olds of both mothers and fathers.

Instruments

Children's understanding of emotion display rules was assessed with an extensively pretested 13 item questionnaire. Each item expressed a mainstream American display rule or its opposite (a counter-norm) for the expression or control of an emotion or the enactment or inhibition of an emotion-related behavior. Some items were modeled after work by Saarni (1982) and Moos and Moos (1981), and others were developed by the authors (see Note 1). Items in pilot work and pretesting that did not produce estimates of near consensus among adults were dropped in the final questionnaire. Together the items described display rules for excitement, happiness, anger, fear, guilt, sadness, and general negative affect such as "upset" or "bad mood" (see Table 1 for wording of items). In addition to normativeness, expressiveness, and emotion type, items
were constructed to represent rules applied to parents or children, both as those experiencing and as those interacting with the one experiencing the emotion.

Children estimated how many grown-ups like their parents and their parents' friends endorsed each statement of a display rule or its opposite by circling one of six boxes below each item representing 0% to 100% (scored 0-5) in 20% increments. One percentage was written underneath each box and that percentage of the box was blackened. This response format had been successfully used in previous research with same-aged children (Dorr, Kovaric, & Doubleday, 1989, in press). Children's parents filled out the same questionnaire with directions altered so that parents estimated the percentage of adults very much like themselves who endorsed each statement. Since adults generally agreed about each statement and thought other adults in their ecocultural niche would, too, questionnaire responses from parents and children were interpreted as participants' knowledge of normative emotional displays or display rules.

Procedures

Parents completed eight instruments at home, including the one about display rules, in about 30 minutes. All parent instruments were received and returned by mail. Children responded to 11 instruments at their school during a one hour session. The display rules instrument was always administered first, took children about 10 minutes to complete, and was administered along with the others in one of two randomly assigned, predetermined orders, designed to assure variety in item and response structure.

Fifteen- and 11-year-olds completed all instruments on their own in medium to large same-age groups monitored by one or more researchers who gave instructions, answered questions, and periodically checked that children were filling out instruments correctly. Seven-year-olds were tested individually by a randomly assigned researcher who read all instructions, items, and response options out loud while children read along silently and indicated response choices.
CHILDREN'S KNOWLEDGE OF DISPLAY RULES

themselves. There were 15 female and six male researchers. Sixteen researchers were European-American, two were Asian-American, two were Hispanic-American, and the other was African-American. All were students or faculty associated with the research project and were well trained on the instruments and in testing children.

Preliminary Analyses

Descriptive analysis. Distributions and descriptive statistics for responses from all 1,270 parents and all 1,692 children from the larger study were examined to insure that there was an adult consensus for each display rule (Table 1). Distributions and descriptive statistics for responses from all parents and children were also examined to determine which items, based on adult consensus, needed to be recoded to reverse scale direction before aggregating variables for later analyses. The same six items (all items in which display rules had been stated counter-normatively) were then recoded in both the parents' and children's data sets as indicated in Table 1. Responses on these items had been in the lower scale range of 0%-40%, indicating most participants believed that adults like them agreed the emotional display described in the item should not occur, i.e., that control rather than expression was normative in this situation.

Additional preliminary descriptive analyses were carried out to check for ethnic differences and differences between the larger sample and balanced subsample of children. Virtually no differences in response distributions and descriptive statistics between these groups were found. The results led to a decision to conduct subsequent factor and psychometric analyses, which call for large samples, with the entire sample of parents and children available from the larger study and subsequent multivariate analyses of variance with the balanced subsample.

Factor analysis of children's and parents' instruments. Separate exploratory factor analyses of all parents' and all children's raw scores on the display rules instrument were conducted to determine the statistical structures of the data, using the Unweighted Least Squares exploratory factor extraction method with a Promax (oblique) rotation. Listwise deletion of cases with missing data produced a sample size of 620 parents and 1,682 children for the analyses. The sample of
adults for this analysis was reduced because one item was inadvertently omitted from about the first half of all instruments administered to parents.

From an examination of the scree plots and eigenvalues, a two factor solution was apparent for all children and all parents and yielded a good, simple structure for each sample with no cross loading items. However, there was one item (Item 8) which loaded weakly in both solutions and two items (Items 2 and 7) were in certain ways conceptually different from the others (see Discussion).

With these three items omitted, a second factor analysis of the same type was conducted for all children and parents. It reproduced the same two-factor solution for both samples, with all factor loadings positive, .29 or greater for the children's solution and .32 or greater for the parents' solution, and no cross loadings (Table 2). Factor correlations were .29 for children and .34 for parents. The two factors were readily interpreted in both solutions as (1) rules advocating the Expression of emotion or enactment of emotion-related behavior and (2) rules advocating the Control of emotional expression or the inhibition of emotion-related behavior.

Insert Table 2 about here

Psychometric analysis of instruments. As shown in Table 2, the Expression and Control scales were moderately reliable. The Expression scale was somewhat more reliable than the Control scale, parents' responses were generally more reliable than children's, and there was no clear pattern for 7-, 11-, and 15-year-olds.
CHILDREN'S KNOWLEDGE OF DISPLAY RULES

The construct validity of the display rules instrument was investigated by correlating summary and subscale scores with similar scores from another instrument from the larger study. The second instrument elicited children's reports of how likely they were to behave in ways described by the same 13 items as in the knowledge of display rules instrument. Using the same factor analytic procedures and standards as previously described, a clear two factor structure was obtained for the behavioral data and easily interpreted as behavior related to Expression or Control display rules. Cronbach alphas were .72 for Expression and .54 for Control for all children. For each age separately, the ranged from .68 to .73 for Expression and .52 to .56 for Control.

As expected, most correlations between scores for the summary scales and Expression and Control subscales from both instruments were positive, in the low to moderate range (.16 to .32), and statistically significant (p<.0001), supporting the validity of the knowledge of display rules instrument. The only weaker correlations were between knowledge of expression rules and behavioral adherence to control rules (.07) and knowledge of control rules and behavioral adherence to expression rules (.05). Although there is no a priori reason to believe that such cross correlations should be low, it is most likely that lower correlations would show up here if the data were to reveal a lack of relationship between knowledge and behavior and expression and control. For each age group, the same pattern of mostly significant positive correlations, in the low to moderate range, was repeated. Again, the lowest and only non-significant correlations (.02) for 7- and 15-year-olds were between the cognitive expression subscale and the behavioral control subscale.

Results

Hypotheses 1 through 4 were tested with an age (4) x gender (2) on display rule type (2) multivariate analysis of variance (MANOVA), using parents' and children's average raw scores across five Expression items and five Control items from the knowledge of display rule instrument for the balanced subsample of parents and children (see Table 3). The MANOVA yielded a significant main effect for age, F(3,711)=9.85, p<.0001. Tukey post hoc comparisons of means showed that the three age groups of children estimated adult agreement on display rules to be about
the same and that parents estimated greater adult agreement on display rules than 7- and 15-year-olds, but not 11-year-olds. However, a visual examination of means suggests a slightly different pattern. Although all mean differences were not large, the particularly small mean difference between 11- and 15-year-olds indicates that older children's estimates of adult consensus on display rules were very similar and about midway between younger children's and parents' estimates of adult rule agreement. These results supported Hypothesis 1 that children improve with age in their ability to estimate adult consensus on display rules. There was also a significant main effect for rule type, $F(1,711)=25.13, p<.0001$. A greater adult consensus was estimated for control than expression rules across age groups, supporting Hypothesis 2. Children and parents perceive greater adult agreement on display rules advocating control than expression of emotion.

The significant main effects for age and rule type were qualified by a significant rule type by age interaction, $F(3,711)=19.07, p<.0001$. Tukey post hoc comparisons of means showed that 7-, 11-, and 15-year-olds largely agreed that the adult consensus for expression rules was lower than their parents' estimate for those rules. However, 11- and 15-year-olds and parents were similar in estimating adult agreement on control rules which was greater than that estimated by 7-year-olds. That is, in accordance with Hypothesis 3, by 15 years of age children still do not know the extent to which adults agree about expression rules. But by an earlier age, 11 years, children can fairly accurately estimate adult agreement on control rules.

Contradicting Hypothesis 4, that females will know expression rules better than males and males and females will know control rules equally well, gender did not account for a significant portion of the variance in any of the MANOVA effects. The main effect for gender ($F(1,711)=3.63, p<.057$) and all interaction effects involving gender (age x gender, $F(3,711)=.31, p<.82$; rule type x gender, $F(1,711)=2.29, p<.13$; and rule type x age x gender, $F(3,711)=.79, p<.50$) were non-significant.
The preceding analysis compared children's display rule knowledge to that of the entire subsample of adults and yielded results supporting Hypotheses 1 through 3, but not 4. Another MANOVA was conducted to test whether Hypotheses 1 through 4 would be supported when a child's own parent was the adult referent. Using raw scores on the knowledge of display rules instrument from the balanced subsample of parents and children, a difference score for each child-parent pair was computed. This was the average absolute difference between scores of parents and their children across each set of five items comprising the Expression and Control display rule subscales. The difference scores were then entered into an age (3) x gender (2) on display rule type (2) MANOVA, yielding a significant main effect for age, $F(2,343)=5.88, p<.003$. A Tukey post hoc comparison of means (Table 4) indicated that 7-year-olds differed more from their parents in estimating the adult agreement on display rules than 11- and 15-year-olds, who were about the same in their agreement with their parents. These results again supported Hypothesis 1 that children's knowledge of adult judgments about display rules improves with age. The main effect for rule type was also significant, $F(1,343)=4.58, p<.03$. Here the difference between parents and children in estimating adult agreement on expression rules was somewhat larger than the difference between parents and children regarding control rules. This finding lent support to Hypothesis 2 of a greater adult consensus estimated by children and adults for control than expression rules by demonstrating greater agreement among children and their parents on the former than the latter type of rule.

Two interaction effects were also significant. The significant rule type by age interaction, ($F(2,343)=4.19, p<.02$), was pursued with Tukey post hoc comparisons of means which showed that children of all ages differed from their parents about the same extent regarding expression rules. For control rules, 7-year-olds differed from their parents more than 11- and 15-year-olds, who were about the same in comparison to their parents. Hypothesis 3, that children will more
CHILDREN'S KNOWLEDGE OF DISPLAY RULES

closely estimate the adult consensus on display rules for emotional control at earlier ages than for emotional expression, was supported by these findings. Since there is little improvement in knowledge of expression rules between 7 and 15 years, parent-child differences for this type of rule remained about the same across age groups. The significant rule type by gender interaction, \( F(1,343)=6.72, p<.01 \), showed that for expression rules boys (\(M=1.16\)) differed more from their parents than girls (\(M=.98\)) and for control rules boys (\(M=.94\)) and girls (\(M=.94\)) differed from their parents to the same extent. These findings supported Hypothesis 4 that females will more closely estimate the adult consensus on expression rules than will males, and males and females will estimate the adult consensus on control rules equally well.

To test Hypothesis 5, a final MANOVA was run comparing children's knowledge of display rules to that of their own parents and to that of the larger adult subsample. Four new variables were created that represented the average absolute difference between scores of each child-parent pair on expression rule and control rule items and the average absolute difference between each child's score and the mean of all adults on expression rule and control rule items. An age (3) x gender (2) x rule type (2) x parent-adult referent (2) MANOVA was then run using these scores. Previous findings of significant main and interaction effects for age, rule type, rule type by age, and rule type by gender were reaffirmed.

The main effect for parent-adult referent was also significant, \( F(1,343)=19.00, p<.0001 \). Children are slightly more similar to all adults (\(M=.93\)) than their own parents (\(M=1.00\)) in their knowledge about display rules. This finding contradicted Hypothesis 5 that children's knowledge of display rules will be more similar to that of their parents than a larger sample of unrelated adults. However, the small difference between group means suggests that children's knowledge of display rules is about equally different from either adult referent used in this study. It should be noted that the rule type by gender by parent referent interaction in this analysis was not significant, suggesting overall that the difference between boys' and girls' knowledge of expression rules may vary somewhat but not greatly by their relationship to the adults with whom their knowledge is being compared.
CHILDREN'S KNOWLEDGE OF DISPLAY RULES

Summary. The results of this study indicated that expression and control rules are recognized by children and adults as ecologically valid, distinct types of display rules, display rule knowledge improves with age, adults and children perceive a greater societal consensus for control than for expression rules, and control rules are learned earlier than expression rules. There was also some evidence that females know the adult consensus for expression rules better than males, at least when comparing children to their own parents rather than a larger sample of adults, but both genders are similar in their knowledge of control rules. Finally, the findings did not generally support the prediction of a stronger relationship between children's display rule knowledge and that of their parents as compared to an unrelated group of adults, with the exception mentioned above that girls appear somewhat more similar to their parents than do boys in their judgments about expression rules.

Discussion

The general aim of this study was to further the investigation of display rule socialization by extending understanding of the development of children's knowledge of display rules of different types. Display rules for the control of emotions have been studied exclusively. While the development of knowledge about emotional control was of interest, we also wanted to determine whether rules for the expression of emotion constitute a separate domain, and if so, how knowledge of expression rules develops.

The results supported the prediction that children improve with age in their understanding of cultural display rules. Further, an important way for adults and children to think about display rules is, as expected, in terms of whether emotional expression or control is regulated by them. Factor analyses of children's and parents' responses about display rules consistently produced two factor solutions that were easily interpreted as rules about emotional expression and control out of all the other possible ways in which display rules were varied. Of these two types of rules, control rules appeared to be especially important or salient. As predicted, parents and children perceived that there is a greater adult consensus about control than expression rules, and control rules were learned earlier than expression rules. Further, as expected, no gender differences were found in
knowledge of control rules. That is, both males and females knew the adult consensus for these rules equally well.

In this pattern of results suggesting a greater importance of control over expression rules in the display rule socialization of our youth, one alternative explanation for the lack of gender differences in children's knowledge of control rules should be considered. In this study, participants were asked about an approximately even number of control rules advocating inhibition of emotion, a strategy used more by boys than girls (Shennum & Bugental, 1982), and dissimulation of emotion, used more by girls than boys (Saarni, 1982). Hence, any gender differences in control rule knowledge related to usage that may exist could have cancelled each other out. Or, as was predicted, it may be that control rule knowledge is not strongly related to usage (Saarni, 1982) and is equally promoted for both girls and boys due to the importance emotional control appears to have in our culture (Lutz, 1990). Contrastingly, some gender differences in knowledge of expression rules were found. As expected, girls demonstrated a greater knowledge than boys of their parents', but not other adults', understanding of expression rules. These findings for girls fit with previous research demonstrating females' greater abilities in decoding and encoding nonverbal affective expressions (Brody, 1985; Hall, 1979; Rosenthal & DePaulo, 1979) and traditional sex-role stereotypes that females more than males can and should attend to the expressive behavior of others (Lutz, 1990). Therefore females may have better understanding of the rules by which emotional expression is regulated.

It is surprising that children's overall knowledge of display rules was not more similar to that of their parents than to that of an unrelated group of adults, except in the area of gender differences in knowledge of expression rules discussed above. Reasonable assertions in this study, with some empirical support (Balswick & Avertt, 1977; Halberstadt, 1984, 1986; Malatesta & Haviland, 1982), were that the family is a primary source of learning about cultural rules regulating emotional displays and that children should more closely approximate their parents' knowledge of display rules than that of a larger sample of adults. However, comparisons of children's display rule knowledge to that of their parents or all other adults showed only slight
CHILDREN'S KNOWLEDGE OF DISPLAY RULES

differences. An explanation may be that the particular adult referents used in the study were not conceptually distinct enough to produce differences where they might exist. The sample of participants in the present study was very homogenous on several demographic variables such as socio-economic status and ethnicity. Thus, being rather similar to one another along dimensions that might relate to one's social beliefs about emotional displays, parents' knowledge of display rules may actually have not been that different. Further, instructions to participants for filling out the instrument used in this study necessarily asked how many adults very much like you (parent instrument) or how many grown-ups like your parents and their friends (child instrument) agreed with the idea (a display rule) represented in each item. Thus, those analyses intended to examine only the relationship between children's display rule knowledge and that of just their parents may have also tapped the display rule knowledge of other adults reflected in their parents' responses. Another, future test of the family as a primary context for display rule knowledge that is distinguishable from other social contexts seems warranted, such as a study that asked children and parents for two separate estimates of the display rules for their social groups and for the parents themselves.

The non-significant findings for the family socialization hypothesis put forth in this study, and the qualified support found for the gender-related hypothesis, are in contrast to the significant findings supporting all other hypotheses involving age and rule type. Again, these significant findings suggest emotional control has a greater prominence than emotional expression in the emotion socialization of our youth, and there may be a somewhat greater societal emphasis on learning to control rather than express feelings, regardless of gender or age. Why should this be the case? First, children can spontaneously express emotion from infancy, albeit not always in socially appropriate ways, so that expending effort to teach children how to control rather than express emotion may seem a more intuitively obvious priority. Further, not controlling emotion, as a general matter, may create more harmful social consequences than not expressing emotion. Although one can imagine situations in which not controlling emotional displays might actually benefit another, lack of emotional control is probably more typically associated with the infliction
of obvious and direct harm on others. Not expressing emotion may or may not affect others at all, or at least may do so in less visible and more subtle ways. Hence, adults may communicate to boys and girls a greater urgency to learn prosocially functioning control rules than expression rules functioning more in the interests of the self.

The only data we are aware of that address the issue of adult priorities for children's learning of expression versus control rules are found in a study by Halberstadt (1984) and the larger, as yet unpublished study of ours mentioned earlier in this paper. Halberstadt (1984) showed that parents of college students rated expressiveness in hypothetical affective family scenarios as more acceptable than unacceptable, suggesting the parents value emotional expressiveness more positively than emotional inhibition. As part of our larger study, the parents of child participants were asked whether expression and control rules were important for their children to learn, how often they modeled expression and control rules when their children were around, and how recently and how much they worked to socialize expression and control rules with their children. Current analyses show that parents stated they value children's learning of expression rules more than control rules and that they model expression rules for their children more than control rules. However, parents also worked with children on control rules more and more recently than on expression rules. These findings and Halberstadt's present a mixed picture of what adults want children to know most about rules for emotional display. The more indirect socialization processes (Saarni, 1985; Saarni & Crowley, 1990) adults used, valuing and modeling, favored learning of expression rules. But the more direct and possibly more effective socialization process of the three, adults actively dealing with children about emotional displays, favored the learning of control rules. In this light, our findings and Halberstadt's for adult socialization priorities and practices regarding display rules are not inconsistent with results of the present study. Prosocially functioning control rules may be somewhat more important than self-oriented expression rules among the display rules children are directly socialized by their parents to acquire.
The issue of the function of display rules and age-related patterns for acquiring display rules which function differently has been raised in previous developmental research on rules for controlling emotional displays only. Both Saarni (1979) and Gnepp and Hess (1986) looked at the emergence of two types of control rules, those serving prosocial and those serving self-protective functions, and reported conflicting results. In her study of children's understanding of display rule usage, Saarni (1979) found that 6-, 8-, and 10-year-old children reported display rule usage to avoid negative consequences for the self and to maintain self-esteem (self-protective function) more than to protect a relationship or maintain norms or role constraints (prosocial function). However, Gnepp and Hess (1986) found a greater prevalence of prosocial over self-protective display rules reported by children of the same ages and also by 15-year-olds. They suggest Saarni's contradictory results may have been partly due to the stimuli she used. Three of Saarni's four stimulus situations seemed more likely to elicit self-protective than prosocial rules. In their study, Gnepp and Hess balanced the number of stimulus stories evoking prosocial versus self-protective displays. Gnepp and Hess explain their results by the greater socialization pressure they believe children receive to protect other people's feelings rather than modify their own.

In light of the controversy the 1986 paper by Gnepp and Hess raised, we re-examined the items about display rules included in our study. Upon reflection, it was clear that the display rules we asked parents and children about could simultaneously be interpreted as prosocial/control rules and self-protective.expression rules, except for two items. These items included one feeling rule (Hochschild, 1979) and one prosocial expression rule. In the interest of creating relatively pure rule types, both items were dropped before multivariate analyses were run (see Methods, Preliminary Analyses). But, admittedly, our results can lend only indirect support to Gnepp and Hess' argument for earlier emergence of prosocial rules, as rule type and function were unwittingly confounded in our study. Future research would need a different pool of items, including prosocial and self-protective rules for both expression and control. Testing for children's understanding of more conceptually distinct types of rules such as these would help settle the
dispute of whether prosocial display rules are learned earlier than self-protective display rules, regardless of whether emotional expression or control is promoted by the rules.

We expect that greater societal concern for controlling or expressing emotion in ways that protect others rather than the self is strongly communicated to children of all ages by adults and leads to earlier learning of prosocial rather than self-protective rules independent of rule type. Saarni (1990) found that children as young as 6 years made judgments very similar to adults' when appraising who is more likely to get hurt feelings if genuine emotions are displayed, and that such possibilities were very salient social context features for children. Children were also quite certain very controlling parental reactions could be expected if one hurt someone else's feelings by showing how one truly felt. A sample of adults confirmed the children's expectations. Further, there was not as consistent a pattern in children's expectations of how parents would respond if a child's own feelings were at risk, although an accepting parental reaction was more likely to be expected than not by children. There was also less consistency among the adults about likely parental reactions to children's "vulnerable self" than the "vulnerable other."

Apart from adult influence, another reason for predicting earlier learning of prosocial than self-protective rules, as discussed in the introduction to this paper, is the profile of relevant social-cognitive abilities available at earlier ages. In particular, developmental change in children's thinking about social regulation and themselves versus others seems pertinent. However, a comparative analysis of the development of self- and other-thinking is difficult because of the lack of such comparative study in the developmental literature (Damon & Hart, 1982, 1988; Hart & Damon, 1985; McGuire & McGuire, 1986). Still, some parts of the puzzle can be pieced together. Findings by several authors (Damon & Hart, 1982; Harter, 1988; Leahy & Shirk, 1985; Maccoby, 1984; Saarni, 1979, 1982) suggest that some thinking about oneself, including one's own internal emotional experiences and mechanisms for enhancing and protecting oneself, develops later than does thinking about others' emotional responses to the self and regulating one's own behavior accordingly. Hence, understanding of self-protective rules may be possible only later in development relative to understanding of prosocial rules.
Another area of social-cognitive developmental research to consider in predicting whether prosocial or self-protective display rules emerge first is children's conceptions of social rules. Turiel and his colleagues (Nucci & Turiel, 1978; Turiel, 1977, 1989; Weston & Turiel, 1980) have found that rules are not unitary concepts for children and that children from five to 11 years of age can distinguish different types of rules. In particular, school-aged children distinguish moral rules (those pertaining to inflicting harm on others) that are always in force from social convention rules (those pertaining to culturally sanctioned expectations about non-injurious behavior) that vary by culture and institution. Since prosocially motivated display rules might be considered examples of moral rules, one can conjecture that children's more absolute thinking about rules protecting others will contribute to younger children's clearer understanding about these rules, relative to their lesser knowledge of display rules motivated by self-interest.

The results of this study add to previous findings about children's relatively early understanding of rules about controlling or dissimulating emotional displays, and juxtapose them against findings of a different developmental pattern for knowledge of display rules about emotional expression. Although future research will be needed to untangle the specific reasons for these differences and the primary contexts for acquisition of both rule types, the present results regarding both expression and control rules lend weight to the argument that boys' and girls' knowledge of such rules reflects the social-cognitive abilities available to them and the societal importance placed on controlling the impact of inappropriate emotional displays on others. Expressing emotion in one's own interests appears to be somewhat less prominent in direct societal practices that influence the emotional knowledge of children.
Authors' Note

1. The authors would like to thank Laura Beizer Seidner for her help with the development of items for the Knowledge of Display Rules instrument used in this study.
References


CHILDREN'S KNOWLEDGE OF DISPLAY RULES


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CHILDREN'S KNOWLEDGE OF DISPLAY RULES


Table 1
Parents' and Children's Mean Estimates of Adult Consensus on Display Rules

<table>
<thead>
<tr>
<th>Item</th>
<th>Age Group</th>
<th>Parents (n=1,270)</th>
<th>All Children (n=1,692)</th>
<th>7-yr-olds (n=510)</th>
<th>11-yr-olds (n=612)</th>
<th>15-yr-olds (n=570)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Children should shout at their parents when the children are</td>
<td>M 4.26</td>
<td>4.39</td>
<td>4.28</td>
<td>4.37</td>
<td>4.51</td>
<td></td>
</tr>
<tr>
<td>angry (R)</td>
<td>SD .99</td>
<td>1.05</td>
<td>1.19</td>
<td>1.03</td>
<td>.92</td>
<td></td>
</tr>
<tr>
<td>2. Parents should show their kids when the kids make them happy</td>
<td>M 4.69</td>
<td>4.08</td>
<td>4.33</td>
<td>4.06</td>
<td>3.89</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SD .63</td>
<td>1.13</td>
<td>1.09</td>
<td>1.18</td>
<td>1.09</td>
<td></td>
</tr>
<tr>
<td>3. Mothers should share with fathers their excitement about</td>
<td>M 4.61</td>
<td>4.18</td>
<td>4.20</td>
<td>4.16</td>
<td>4.18</td>
<td></td>
</tr>
<tr>
<td>receiving good news</td>
<td>SD .69</td>
<td>1.04</td>
<td>1.14</td>
<td>1.04</td>
<td>.95</td>
<td></td>
</tr>
<tr>
<td>4. Kids should show their parents when they have really strong</td>
<td>M 3.64</td>
<td>3.81</td>
<td>4.14</td>
<td>3.79</td>
<td>3.52</td>
<td></td>
</tr>
<tr>
<td>negative (bad) feelings</td>
<td>SD 1.15</td>
<td>1.32</td>
<td>1.30</td>
<td>1.30</td>
<td>1.29</td>
<td></td>
</tr>
<tr>
<td>5. Girls should boss their little brothers around when the girls</td>
<td>M 4.68</td>
<td>4.49</td>
<td>4.41</td>
<td>4.42</td>
<td>4.63</td>
<td></td>
</tr>
<tr>
<td>are in a bad mood (R)</td>
<td>SD .74</td>
<td>1.11</td>
<td>1.24</td>
<td>1.18</td>
<td>.85</td>
<td></td>
</tr>
<tr>
<td>6. Kids should tell their parents when they are upset about</td>
<td>M 4.69</td>
<td>4.28</td>
<td>4.57</td>
<td>4.22</td>
<td>4.10</td>
<td></td>
</tr>
<tr>
<td>things that happened at school</td>
<td>SD .63</td>
<td>1.05</td>
<td>.92</td>
<td>1.13</td>
<td>1.03</td>
<td></td>
</tr>
<tr>
<td>7. Kids should feel guilty if they stop and help a kid who's hurt</td>
<td>M 3.91</td>
<td>3.54</td>
<td>2.83</td>
<td>3.58</td>
<td>4.12</td>
<td></td>
</tr>
<tr>
<td>when their mother has told them to come right home after school</td>
<td>SD 1.34</td>
<td>1.76</td>
<td>1.97</td>
<td>1.71</td>
<td>1.35</td>
<td></td>
</tr>
<tr>
<td>(R)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. A mother should let her teenage kids go on vacation with a</td>
<td>M 3.84</td>
<td>3.12</td>
<td>2.86</td>
<td>3.11</td>
<td>3.37</td>
<td></td>
</tr>
<tr>
<td>cousin, even though the mother will be sad that they're gone</td>
<td>SD 1.19</td>
<td>1.43</td>
<td>1.65</td>
<td>1.33</td>
<td>1.29</td>
<td></td>
</tr>
<tr>
<td>9. Parents should be angry at kids when they get home late for</td>
<td>M 3.77</td>
<td>3.67</td>
<td>3.12</td>
<td>3.90</td>
<td>3.93</td>
<td></td>
</tr>
<tr>
<td>dinner because the kids went with a sick friend to the hospital</td>
<td>SD 1.38</td>
<td>1.59</td>
<td>1.88</td>
<td>1.42</td>
<td>1.32</td>
<td></td>
</tr>
<tr>
<td>(R)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(table continues)
Table 1 (continued)

<table>
<thead>
<tr>
<th>Item</th>
<th>Parents (n=1,270)</th>
<th>All Children (n=1,692)</th>
<th>7-yr-olds (n=510)</th>
<th>11-yr-olds (n=612)</th>
<th>15-yr-olds (n=570)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. A 12-year-old boy should cry in front of a brother or sister when he is sad because his dog has died</td>
<td>M 4.26 SD 1.02</td>
<td>M 3.34 SD 1.61</td>
<td>M 3.66 SD 1.67</td>
<td>M 3.27 SD 1.60</td>
<td>M 3.13 SD 1.53</td>
</tr>
<tr>
<td>11. An 8-year-old boy should tell his mother if he is scared because another kid says he is going to beat him up</td>
<td>M 4.62 SD .71</td>
<td>M 4.24 SD 1.20</td>
<td>M 4.17 SD 1.43</td>
<td>M 4.36 SD 1.06</td>
<td>M 4.16 SD 1.09</td>
</tr>
<tr>
<td>12. A big kid should brag a lot when she is excited about beating her little sister in a race (R)</td>
<td>M 4.37 SD .95</td>
<td>M 4.23 SD 1.23</td>
<td>M 3.87 SD 1.60</td>
<td>M 4.42 SD 1.00</td>
<td>M 4.36 SD .98</td>
</tr>
<tr>
<td>13. Kids should get angry and yell at their little brothers when the brothers make mistakes (R)</td>
<td>M 4.50 SD .84</td>
<td>M 4.20 SD 1.21</td>
<td>M 4.20 SD 1.34</td>
<td>M 4.16 SD 1.20</td>
<td>M 4.23 SD 1.08</td>
</tr>
</tbody>
</table>

Note: Display rules were prefaced by the question "How many adults very much like you think that" (parents) or "How many grown-ups like your parents and their friends think that" (children). Responses were percentages ranging from 0-100 in 20% increments which were scored 0-5. Scales for items in the table followed by an (R) were reversed. In item 4, the word "negative" was replaced with the word "bad" in the child version of the questionnaire.
Table 2
Factor Structures of Parents' and Children's Estimates of Adult Consensus on Display Rules for Emotional Expression and Control

<table>
<thead>
<tr>
<th>Item</th>
<th>Age Group</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Parents (n = 620)</td>
<td>All Children (n = 1,682)</td>
<td>7-yr-olds (n = 510)</td>
<td>11-yr-olds (n = 604)</td>
<td>15-yr-olds (n = 568)</td>
</tr>
<tr>
<td></td>
<td>Alpha</td>
<td>E</td>
<td>C</td>
<td>E</td>
<td>C</td>
</tr>
<tr>
<td>11. Boy scared</td>
<td>.76</td>
<td>-.</td>
<td>-.</td>
<td>.34</td>
<td>-.</td>
</tr>
<tr>
<td>6. Kids tell upset</td>
<td>.64</td>
<td>-.</td>
<td>-.</td>
<td>.46</td>
<td>-.</td>
</tr>
<tr>
<td>10. Boy cry</td>
<td>.57</td>
<td>.43</td>
<td>-.</td>
<td>.32</td>
<td>-.23</td>
</tr>
<tr>
<td>4. Kids show bad feelings</td>
<td>.48</td>
<td>-.53</td>
<td>-.</td>
<td>.46</td>
<td>-.</td>
</tr>
<tr>
<td>3. Mothers share excitement</td>
<td>.45</td>
<td>-.38</td>
<td>-.</td>
<td>.48</td>
<td>-.</td>
</tr>
<tr>
<td>13. Kids get angry</td>
<td>-.</td>
<td>.61</td>
<td>-.</td>
<td>.62</td>
<td>-.</td>
</tr>
<tr>
<td>5. Girls boss</td>
<td>-.</td>
<td>.58</td>
<td>-.</td>
<td>.45</td>
<td>-.</td>
</tr>
<tr>
<td>12. Big kid brag</td>
<td>-.</td>
<td>.53</td>
<td>-.</td>
<td>.57</td>
<td>-.</td>
</tr>
<tr>
<td>1. Children shout</td>
<td>-.</td>
<td>.48</td>
<td>-.</td>
<td>.29</td>
<td>.17</td>
</tr>
<tr>
<td>9. Parents angry</td>
<td>-.</td>
<td>.32</td>
<td>-.</td>
<td>.30</td>
<td>-.</td>
</tr>
</tbody>
</table>

Note: Factor C = Control, Factor E = Expression.
Loadings on factors indicated by a "-" were < |.15|. 
Table 3
Parents' and Children's Mean Estimates of Adult Consensus on Display Rules for Emotional Expression and Control

<table>
<thead>
<tr>
<th>Rule Type</th>
<th>Age Group</th>
<th>7-yr-olds (n=89)</th>
<th>11-yr-olds (n=129)</th>
<th>15-yr-olds (n=152)</th>
<th>Parents (n=370)</th>
<th>Total (n=740)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expression</td>
<td>M</td>
<td>4.08a</td>
<td>3.97a</td>
<td>3.88a</td>
<td>4.30b</td>
<td>4.13f</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>.75</td>
<td>.84</td>
<td>.76</td>
<td>.61</td>
<td>.73</td>
</tr>
<tr>
<td>Control</td>
<td>M</td>
<td>3.93c</td>
<td>4.39d</td>
<td>4.36d</td>
<td>4.30d</td>
<td>4.28g</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>.79</td>
<td>.60</td>
<td>.54</td>
<td>.64</td>
<td>.65</td>
</tr>
<tr>
<td>Total</td>
<td>M</td>
<td>4.00e</td>
<td>4.18ef</td>
<td>4.12e</td>
<td>4.30f</td>
<td>4.20</td>
</tr>
<tr>
<td>(Expression and Control Combined)</td>
<td>SD</td>
<td>.59</td>
<td>.60</td>
<td>.48</td>
<td>.49</td>
<td>.53</td>
</tr>
</tbody>
</table>

Note: For age group within rule type and age group and rule type within margin total, means with different subscripts differ significantly at p<.05.
<table>
<thead>
<tr>
<th>Rule Type</th>
<th>Age Group</th>
<th>7-yr-olds (n=89)</th>
<th>11-yr-olds (n=129)</th>
<th>15-yr-olds (n=152)</th>
<th>Total (n=370)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expression</td>
<td>M</td>
<td>1.13a</td>
<td>1.05a</td>
<td>1.07a</td>
<td>1.07f</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>.65</td>
<td>.62</td>
<td>.55</td>
<td>.60</td>
</tr>
<tr>
<td>Control</td>
<td>M</td>
<td>1.18b</td>
<td>.83c</td>
<td>.89c</td>
<td>.94g</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>.66</td>
<td>.55</td>
<td>.64</td>
<td>.63</td>
</tr>
<tr>
<td>Total (Expression and Control Combined)</td>
<td>M</td>
<td>1.15d</td>
<td>.93e</td>
<td>.98e</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>.47</td>
<td>.48</td>
<td>.46</td>
<td>.47</td>
</tr>
</tbody>
</table>

Note: For age group within rule type and age group and rule type within margin total, means with different subscripts differ significantly at p<.05.