Two hundred males and 212 females in grades three through eight were tested for conformity to peers using Asch-type stimuli and a modified Crutchfield procedure. The results showed that, with difficulty level controlled, conformity decreased with age between eight and eleven years and then increased to age thirteen. Discrepancies among earlier investigations in this area were discussed. Explanations for these discrepancies in terms of the subjects' initial ability or ambiguity of the task were seen as inadequate. An alternative explanation in terms of a failure to recognize a curvilinear relationship between the variables is offered. The results of this study were found to be consistent with the explanation in an earlier study that conformity is affected by age only indirectly through its effects on certain situational variables. These variables include changes in social organization and changes in flexibility and generality of norms. (Author)
CONFORMITY AS A FUNCTION OF AGE IN PREADOLESCENTS

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Various investigations of the relationship between age and conformity to peers in the past decade have led to contradictory conclusions about the behavior of preadolescents. Berenda (1950) found that conformity decreased with age between 7 and 13. This same inverse relationship was subsequently found by several other investigators (Bishop and Beckman, 1971; Coon & Odum, 1968; Hamm, 1970; Janney et al., 1969; Query, 1968). Costanzo and Shaw (1966), and others (Costanzo, 1970; Iscoe, Williams, and Harvey, 1963), however, have found conformity to increase with age up to age 13. Allen and Newstan (1972) recently reported finding conformity for males to decrease with age from grades one through seven and then increase to grade 11.

Attempts to explain these discrepancies in terms of the subject's initial ability have not proved consistently useful. Iscoe et al. (1963) found that with initial ability controlled, conformity increased with age in preadolescents. Hamm (1970) and Allen & Newstan (1972), however, found conformity to decrease with age during preadolescence when initial ability was controlled.

Hoving, Hamm, & Galvin (1969) have suggested that the relationship between conformity and age varies as a function of the ambiguity of the task. Using an ambiguous task, they found conformity to increase with age. When an unambiguous task was used, they found conformity to decrease with age. They offered these findings as a possible explanation for the inconsistencies in previous results.
This explanation, however, also does not seem to be consistently useful. Costanzo and Shaw (1966) found conformity to increase with age though an unambiguous task was used. In addition, Hamm (1970) found conformity to decrease with age when both an ambiguous and an unambiguous task were used.

Apparently, neither task ambiguity nor initial ability are sufficient to account for the discrepancies in previous findings in this area. The present study was an attempt to describe further the relationship between conformity and age in preadolescents using an unambiguous task. In order to facilitate a better understanding of this relationship, all ages within the interval of 8- to 13- years were sampled. Previous investigations have always omitted certain ages from consideration and/or arbitrarily combined subjects of various ages.

METHOD

Subjects.—The subjects in this study were 200 male and 212 female students from grades three through eight in the public school system of Adams County, Pennsylvania. Subjects from grades three through six were selected from three elementary schools; subjects from grades seven and eight were selected from the same junior high school.

Procedure.—The apparatus used was a simplified version of that described by Crutchfield (1955). It consisted of a table divided into four booths. The experimenter's station was just to the left of the subjects' table. Each subject's booth contained a panel consisting of a row of three lights and a row of three buttons. Each
button activated a light on the experimenter's panel. The lights on
the subjects' panels were controlled by the experimenter. Each subject
was led to believe that these lights displayed the responses of the
three other subjects. The stimuli used were similar to those used by
Asch (1956), each containing one standard line and three comparison
lines, one of which was the same length as the standard. The stimuli
were projected on a screen 10 feet in front of the subjects. Each
slide appeared for eight seconds after which the subjects had to
respond.

The experiment was conducted in a room at each of the schools
from which subjects were drawn. Four subjects, all from the same
class and of the same sex, were run in each experimental session. The
nature of the task and the manner of responding were explained in
detail. Subjects were told that they would be assigned a letter from
"A" through "D" to determine the order in which they would be responding.
Each subject was then handed a piece of paper with the letter "D"
printed on it. Subjects were told that they should not respond until
their letter was called out. Talking was prohibited. One or more
practice trials were then administered to insure that all subjects
understood the instructions and were able to perform the task. At
this point, 17 additional trials were administered in a predetermined
order. On 11 of these trials, the experimenter signaled unanimously
erroneous responses for subjects "A", "B", and "C". On the remaining
six of the trials (control), the experimenter signaled unanimously
correct responses for subjects "A", "B", and "C". The measure of
conformity used was the number of times (out of 11) that subject's
response agreed with the erroneous response signaled by the experimenter.

A control group of 38 subjects, ages 7-13, was tested in groups of three to five. They were required to make the same judgments as the experimental subjects but were not shown the "responses" of the others being tested with them.

At the completion of the 17 experimental trials, subjects were asked what they knew about the experiment before coming in. They were also asked if they noticed that sometimes some of their friends' answers were different from their own answers. If a subject answered affirmatively to the latter question, he was asked to explain, if he could, why their answers might have been different from his. Subjects were then debriefed.

RESULTS

Of the original 412 subjects tested, 316 were included in the final analysis. These were the subjects who met the criteria for age, were apparently naive about the true nature of the experiment, and reached an acceptable level of task competence. In order to be excluded as incompetent, a subject had to give an erroneous response on two of the non-experimental trials (including practice and control trials).

The number of conformity responses for each sex and age group were combined in a 2 X 6 factorial design. The number of subjects in each group ranged from 15 to 39. The mean conformity scores of the 12 groups are presented in Figure 1. An analysis of variance revealed that the only significant source of variability was Age, ($F = 2.72$, $df = 5/204$, $p < .05$). A further test for trend (Winer, 1971) showed conformity to be a significant quadratic function with respect to age, ($F = 5.83$, $df = 1/304$, $p < .05$).
Analysis of the control data revealed that the 7-9-year-old controls made essentially as few errors (0.53 errors for the 11 trials) as the 11-13-year-old controls (0.33 errors). These results suggest that the changes in conformity scores with age was the result of changes in the effects of group pressure and not the result of an increased ability to perform the perceptual task.

DISCUSSION

The present results suggest that conformity is a curvilinear function of age in preadolescents. Allen and Newstan (1972) recently reported a similar relationship, but only for males. This quadratic function may have been masked in previous investigations by the arbitrary combining and/or omitting of certain age groups. Moreover, the lack of consistency among previous investigations in terms of which age groups were combined or omitted may be partly responsible for the discrepant findings among these studies. It is clear that previously offered explanations for these discrepancies in terms of the subjects' initial ability (Iscoe et al., 1963) or task ambiguity (Hoving et al., 1969) are insufficient.

Allen and Newstan (1972) point out that this curvilinear relationship argues against the previously offered explanations for the effects of age on conformity in preadolescents. Hoving et al. (1969) hypothesized that conformity decreases with age in preadolescents
because of an increasing "need for accuracy" during preadolescence. It is, however, difficult to see how this explanation could account for the observed increase in conformity after age 11 in the present study and the similar increase found after grade seven in the Allen and Newstan study. The stage conception explanation offered by Costanzo and Shaw (1966) also does not fit with the present data nor with the results of several other investigations (Berenda, 1950; Bishop and Beckman, 1971; Coon & Odum, 1968; Hamm, 1970; Janney et al., 1969; Query, 1968). Their explanation, based on Piaget's stage theory of moral development, would predict a peak in conformity at precisely the point where the present investigation, as well as that of Allen and Newstan, found conformity to be at its lowest point.

The results of the present study are consistent with the explanation (Allen and Newstan, 1972) that conformity is affected by age only indirectly through its effects on certain situational variables. These variables include changes in social organization and changes in flexibility and generality of norms. This is the only theory so far offered that can account for the observed decrease in conformity between ages 8 and 11 as well as the subsequent increase in conformity to age 13.
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Figure Captions

Fig. 1 Mean conformity scores for males and females, ages 8-13.