Changes in peer conformity across age on normative and informational tasks

Susan C. Wright
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CHANGES IN PEER CONFORMITY ACROSS AGE
ON NORMATIVE AND INFORMATIONAL TASKS

A Thesis
Presented to the
Department of Psychology
and the
Faculty of the Graduate College
University of Nebraska at Omaha

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
Susan C. Wright
November, 1972
Accepted for the faculty of The Graduate College of the University of Nebraska at Omaha, in partial fulfillment of the requirements for the degree Master of Arts.

Graduate Committee

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<thead>
<tr>
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<th>Department</th>
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<tr>
<td>Joseph C. Labori</td>
<td>Psychology</td>
</tr>
<tr>
<td>Helen Howell</td>
<td>Elementary Education</td>
</tr>
<tr>
<td>Richard L. Koff</td>
<td>Psychology</td>
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</table>

Chairman

Norman H. Hammm
Acknowledgements

I would like to thank Norman Hamm, my thesis adviser, for his help in designing and in writing this study. My thanks also go to the other members of the committee, Joseph LaVoie, Richard Wikoff, and Helen Howell for the helpful suggestions and guidance they gave.

I particularly appreciate the help of the University of Nebraska at Omaha television studio, the Blair City Schools, and the Treynor City Schools whose cooperation made this thesis project possible. I also wish to extend my thanks to those who served as models for the tapes: Joseph LaVoie, Marjorie Huntley Wikoff, Colleen Frenking, Jay Lynch, Patrick Walsch, Monica Blankenau, Daniel Walsch, Debbie Lay, Joe Koenig, and Marrian Smith.
Abstract

The influence of adult and peer models on Ss from grades 2, 5, 8, and 11 was measured on informational and normative tasks. Social influence was produced by presenting televised adult and peer model answers after each informational (dot discrepancy) and normative (art pictures) problem. The predictions that peer conformity would be positively related to age, and that peers would be more influential on normative tasks were not supported (p < .05). While similar levels of peer conformity occurred for males and females on informational tasks, males conformed significantly more to peers on normative tasks than females. In addition, conformity to all models decreased significantly across grades and informational conformity was significantly greater than normative conformity.
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Introduction

Children and adolescents are often influenced by peer and adult norm groups in making decisions. Adult conformity has been found to be more prevalent than peer conformity in some studies, while peer conformity has been more predominant in others. The relative influence of both, however, seems to vary with the age of the child. The present study was particularly concerned with the relative influence of adults and peers on the informational and social decisions of children and adolescents.

The typical conformity study has usually consisted of a naive subject, a number of confederates, and a problem with a number of possible answers. The confederate(s) announces his choice in front of the group and then the subject is asked to state his choice. If the subject chose the same answer as the confederate(s), he is said to have conformed. Selecting an alternative not offered by the confederate(s) usually constitutes nonconformity. The response selected by the confederate(s) is usually either incorrect or equally correct in comparison with other answers. In the present study all possible responses matched at least two of the four models' choices and all selections were equally correct with respect to reality.

The extent of peer and adult influence on different age children was investigated by Hoving (1964) in two experiments using an Asch-line task. The original task used by Asch (1951) required subjects to choose one of three lines which matched the length of the standard line. In the first experiment by Hoving, the models either chose the same false alternative, or different, but equally incorrect
alternatives. In the second experiment they chose equally correct matches. Although the results on the first task were not statistically significant, adults appeared more influential than peers with all children. The same trend was observed on the second task and was statistically significant. In addition, peers tended to be more influential with fourth-graders than they were with second-graders, although not to a significant degree. On the basis of this trend, further research was undertaken by Hamm and Hoving (1971).

Using a similar method, Hamm and Hoving (1971) tested children across a broad developmental age span. The first study, using reported norms rather than live models, found overall conformity to be an increasing function of age. In addition, there was also a non-significant tendency for older children to conform more to peer norms than younger children. A second study in which models were actually present in the conformity situation revealed that the tendency of children to conform to peers, rather than adults, was a significant positive linear function of age. Hence, like the earlier Hoving (1964) investigation, peer influence increased as children approached adolescence; however, across all age levels adults were more influential than peers.

Adults also appeared more influential than peers in a study by Brittain (1963). He tested the hypothesis that the influence of peers and parents was situationally specific, that is, whether a child conforms to an adult or a peer depends on the nature of the situation. Problematic social situations, such as which course to take in school or which boy to date, and solutions were presented to girls in
grades 9 and 11. One solution was offered as a parent's advice, and the second as a friend's advice. Each subject was then to decide which course of action was most appropriate. Two forms of the questionnaire were used with parent and peer alternatives interchanged on the second form. Peer and parent conformity was compared on items which showed a response shift from one form of the questionnaire to the other. Analyses showed that differences on all but one of 12 items were statistically significant. Seven items favored parent conformity, while only four favored peer conformity. These results agree with the two earlier studies by Hoving and associates (1964, 1971) which found that adults were more influential than peers with all children.

In contrast to the studies just cited, Utech and Hoving (1969), using a technique similar to Brittain's, found peers to be more influential than adults. The major differences between the two studies were: (a) both girls and boys were sampled across a wide age range, and (b) the fact that either answer was equally correct was stressed. The magnitude of parental conformity was never greater than 50% and decreased significantly across age. While peers rather than adults were the dominating force in this study, it is important to note that the increase in peer conformity still appeared as a significant factor.

Research in social reinforcement also reveals a shift towards peer conformity with age. Social reinforcement studies, like conformity studies, measure a social influence process. Stevenson and Cruse (1961), using adult reinforcing agents in a marble-sorting task, found the influential effects to be greater with five-year-olds than
with 12-year-olds, indicating a decrease in adult ability to influence children as they approach adolescence. Patterson and Anderson (1964), however, using peers as reinforcing agents, found that third- and fourth-graders responded more to social reinforcement than second-graders. Again peers were more influential with older children.

In each of the investigations by Hamm and Hoving (1971), Utech and Hoving (1969), and Patterson and Anderson (1964), peer influence has been found to increase with age.

While this tendency for change with age has been a fairly consistent finding, results relating to overall levels of adult and peer conformity have varied across studies. Many factors might account for the differences. If the situational aspects of the task are considered as suggested by Brittain (1963), regularities do appear in the research literature. Studies that have used informational tasks (Hoving, 1964; Hamm and Hoving, 1971) seem to find more adult conformity, while studies with normative tasks generally find more peer conformity (Brittain, 1963; Utech and Hoving, 1969). The distinction between informational and social or normative conformity has been described by Deutsch and Gerard (1955). Normative social influence comes from a desire to be in agreement with the expectations of others in order to increase feelings such as belonging and self-esteem. In contrast, informational social influence arises from a desire to obtain knowledge of reality, to be correct in one's judgements. It is likely that children conform to peers on normative tasks and to adults on informational tasks.
The informational social influence, as defined by Deutsch and Gerard (1955), has been measured in the studies cited earlier by Hoving (1964) and Hamm and Hoving (1971). In both of these studies, adults were found to have greater influence than peers on children of all ages; also, peer influence seemed to increase across grades. The increase in peer conformity in the Hamm and Hoving study, however, amounted to less than a 10% change between grades 2 and 11. This can be compared to a 25% increase from grade 3 to grade 11 in the Utech and Hoving study (1969) in which normative items were used. From this it appears that adults not only have more influence with young children in informational situations, but tend to retain their relative importance more on informational than on normative tasks.

The Utech and Hoving (1969) study, referred to in the preceding paragraph is one of the few experimental investigations dealing with peer influence on normative conformity. Each item consisted of a paragraph stating a decision to be made by a peer, such as whether to join the choir or the band, and conflicting advice from a parent and a peer. As indicated earlier, peers were more influential than adults in this study and became increasingly more effective with older children. The number of adult conformity responses was never greater than 50%. Hence, it appears that on normative items peers were more influential than adults.

While the Britain (1963) study was similar to the Utech and Hoving study (1969), more items produced adult conformity than peer conformity. These results offer negative evidence to the notion that peers are more influential than adults on normative tasks. Britain
concluded that they reflected the adolescent's perception of peers and parents as competent guides in different areas of judgement. Answers to questions relating to the peer society, such as which dress to buy, would be based on peer choices while those relating to the adult society, such as which job to take, would be based on parent choices. Also in support of his suggestion he found that parent conformity was more prevalent for dilemmas involving choices which were perceived as more difficult by the subjects in a post-experimental interview.

On the basis of the studies reviewed above, the following predictions were made for the present investigation.

1. Since in the studies by Hamm and Hoving (1971), Utech and Hoving (1969), and Patterson and Anderson (1964), peer influence was found to increase across ages, it was predicted that in the present study when different age children were presented with adult and peer norms, peer conformity, as opposed to adult conformity, would be positively related to age.

2. A second prediction based on the informational studies of Hoving (1964) and Hamm and Hoving (1971), and the normative study of Utech and Hoving (1969), was that peers would be more influential on normative tasks than on informational tasks. The reciprocal hypothesis, that adults' would be less influential on normative items and more influential on informational items was also predicted.

3. Investigation of the percentage of change in peer conformity across grade levels in the Hamm and Hoving (1971) and Utech and Hoving (1969) studies lead to the additional prediction that the magnitude
of change in peer conformity across grades should be more on normative items than on informational items.
Method

Subjects

The Ss were chosen from the Blair City Schools and consisted of two groups of 15 males and 15 females from each of the following grades: 2, 5, 8, and 11. Blair is a small rural community consisting primarily of middle-class whites. The school is consolidated and serves Blair and the surrounding farm area.

Additional Ss for the pre-experimental procedure were selected from the sixth-grade classes in Blair and from second, fifth, eighth, and eleventh grade classes in Treynor, Iowa. Forty-seven students from the sixth-grade and 10 students from each of the other grades made up the pre-experimental sample. The Treynor, Iowa Public Schools are also consolidated and serve the surrounding farm area.

Stimulus and Apparatus

The stimuli consisted of sixty-two 2 X 2 slides divided by a vertical line into two halves with the number "1" at the top of the left half and the number "2" at the top of the right half. Thirty slides were composed of two groups of 28 and 30 black dots. Any given slide has the same number of dots in each of its halves. An additional sample slide had 25 dots on one side and 30 dots on the other side. The other 31 slides, including a sample, showed two colored reproductions of abstract prints or paintings taken from a series of books on artists published by the Tudor Publishing Company in New York.

Each student was given a rating sheet with two alternatives for each slide. A Carousel projector and a screen were used to present
the stimuli and a 21-in. Sony television monitor (model 2110A) and a Sony video tape recorder (model CV-2600) were used to present the models. Four models were seen by each group: one male adult, one female adult, one male peer, and one female peer. A different tape was made for each grade so that the peer models were the same age as the Ss in each case. Each model had two 12" X 24" cards, one showing a black "1" and the other showing a black "2". The cards were used to indicate the models' answers and a male moderator was employed to instruct the models and to summarize their answers. The television studio at the University of Nebraska at Omaha provided the equipment and personnel for making the video tapes.

Procedure

Pre-experimental procedure. In order to select dot and art problem slides which would minimize subject preferences, a two-step pre-experimental procedure was employed. The first step involved showing 60 dot slides and 60 picture slides to 47 sixth graders in the Blair City Schools. Each of the slides was presented for five secs., and those for which one side was preferred no more than 60% of the time. These slides, 35 dot slides and 45 picture slides, were then shown again to four groups of children from the Treynor Public Schools. The groups were composed of 10 children from each of grades 2, 5, 8, and 11. For the actual dot and picture slides chosen no one side was preferred more than 70% of the time. Twenty of each type of slide were retained. In addition, since a total of 30 of each type of slide were necessary for the experiment and 10 of each were not used in the slide sequence to measure the conformity
process, 10 dot slides and 10 picture slides were chosen at random from
the remaining slide pool. These were added to enhance realism by
providing all possible model choices.

Experimental procedure. Subjects were run in groups of 30. The
instructions were as follows:

You are going to help me with a study I am doing by
playing some guessing games. I played these games with some
people in Omaha and we taped them so that you could see how
they answered and play along with them. The first part of
the game involves guessing which side of a card has more dots.
Look at the sample slide. Do you see the numbers above each
half? Now look at your answer sheet. The first column of
blanks has a number "1" above it; the second column of blanks
has a number "2" above it. If you think the side of the
picture marked number "1" has more dots, mark an X in the
blank under column "1" for the sample question. If you
think the side of the picture marked number "2" has more
dots, put an X in the blank under column "2". When I turn
the television on, you will be introduced to the people from
Omaha; then you will see the dot slides on the television
and on this screen. The people playing the game will hold
up cards to indicate their answers. Then they will wait
while you mark your answer on your answer sheet. You will
have to work quickly. There will not be enough time for
you to count all the dots, so you will have to guess which
side has more dots.

The sample slide was shown while the instructions were read. The
30 dot slides were then presented on the television and on the screen
in the classroom for five secs. each. After each slide, two peer
and two adult models held up cards to indicate their answers. The
peer models were seated apart from the adult models. A summary was
given by the moderator after the models had presented their answers
to strengthen the effect of the differences being shown. For the 30
informational slides, 10 of the models' responses portrayed peers in
agreement with each other and with the adults, 10 portrayed peers
in agreement with each other but not in agreement with adults, and
the remaining 10 showed one peer and one adult agreeing on one choice and one peer and one adult agreeing on the other choice. In the adult-peer conflict condition, model choices were balanced for position preferences. On five of the slides peers selected the right alternative and adults chose the left; on the remaining slides the reverse was true. The order of presentation of the slides was randomized and the order of model responses to the slides was also randomized with the exception of the first two responses. Because it was assumed that students would expect differences among the models' answers, the first two slides presented showed one peer and one adult choosing each alternative.

When the 30 informational items had been completed, the television was turned off and the following instructions were given:

The second part of the game involves picking the picture you like best from two abstract pictures. There are no right or wrong answers in this game. The one you like best is the one you should choose. Look at the sample slide. The numbers above the pictures are the same as the numbers above the columns on your answer sheet. If you like picture number "1" best, put an X in the blank under column one for the sample question; if you like number "2" best, put an X in the blank under column two. When I turn on the television, you will see the pictures and each of the people playing the game will hold up a card with his preference on it. They will wait while you mark your answer on the answer sheet. You will have to work quickly. Be sure to pick one and only one answer for each slide.

The sample slide was shown as the instructions for it were read. Then the 30 slides with pictures were presented for five secs. each. Again peer and adult models showed their choices after each slide by holding up a card. The peers and adults were in agreement on 10 of the slides; the peers opposed the adults on another 10 slides; and one peer and one adult agreed on each alternative for the remaining
10 slides. Right and left alternatives were again balanced in the conflict situation. The slides were randomly ordered for presentation and types of answers were randomly assigned to all but the first two slides. The first two slides again received the third response paradigm listed above.

At each grade level, one group responded to the dot slides first and one group responded to the picture slides first in order to counterbalance for sequence effects.

Post-experimental questionnaire. After the experimental problems were completed, each S was asked to fill out a post-experimental questionnaire. Items were read aloud to the students so that reading ability would not interfere with the task. The first nine questions dealt with aspects of the study. The remaining four questions composed a sociogram. A copy of the questionnaire can be found following the results section of this paper.
Results

Two measures of conformity behavior were calculated: one represented the influence of peers under conditions of adult-peer conflict and the second measured the influence of both sources under conditions of adult-peer agreement. Peer conformity occurred when students chose the peer answer under conditions of adult-peer conflict, while overall conformity occurred when students chose the same response as the models in the non-conflict condition. Adult conformity was the reciprocal of peer conformity. Ten informational and ten normative items were used with each measure.

Two separate analyses of variance were performed, one on the overall conformity measure and the second on peer conformity. In each case, the design used was a 4 (grade) X 2 (sex) X 2 (order) X 2 (item) analysis of variance. A table of means for peer and overall conformity scores appears in the Appendix.

Peer Conformity

The first hypothesis, that peer conformity would increase across grades was not supported. The second hypothesis, that peers would conform more on normative items than on informational items, and the third hypothesis, that the magnitude of changes for peer conformity across grades would be greater on normative than on informational items, were also rejected. The results of the analysis of variance for peer conformity are presented in Table I.

Sex. The mean conformity scores for sex were 5.55 and 5.12, with boys exhibiting significantly more peer conformity responses than girls.
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*p < .01

**p < .05
**Sex X Item.** The significant *Sex X Item* interaction is presented in Figure 1. The interaction indicates that, while males and females exhibited similar levels of peer conformity for informational items, males were more influenced than females by peer on normative items. A simple main effects analysis was performed on the overall *Sex X Item* interaction. The difference between male and female responses for normative items was found to be significant ($F = 43.03$, $df = 1/192$, $p < .01$) indicating that, while sex is not a significant factor on informational tasks, on normative tasks there seems to be a strong tendency for boys to exhibit more peer conformity than girls.

**Overall Conformity**

No predictions were made concerning overall conformity, however, the data were analyzed using an analysis of variance. The results of this analysis appear in Table II.

**Grade Level.** The main effect for grade was significant. The function is presented graphically in Figure 2. A trend analysis performed on the grade level means revealed a significant linear component to the main effect of age ($F = 13.93$, $df = 1/192$, $p < .01$). The curvilinear trend was nonsignificant. In addition, a Newman-Kuels comparison revealed that none of the individual means were significantly different from each other. This apparent contradiction to the finding of a main effect and a linear trend is probably due to the fact that the $F$ value was barely significant and that the Newman-Kuel test is more conservative than the $F$ test or the test for linear trend.

**Informational vs. Normative items.** The mean conformity scores for informational and normative items were 6.22 and 5.71, respectively.
Mean Number of Peer Conformity Response

Fig. 1. Interaction of sex and type of item for peer conformity.
Table II
Analysis of Variance: Overall Conformity

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*P < .05
**P < .001
Fig. 2. Main effect of grade for overall conformity.
This significant main effect indicated that Ss conformed more to informational items than normative items.

**Grade X Order.** The Grade X Order interaction was significant at the .01 level. A simple effects analysis of order at each grade level revealed a significant difference of means at the fifth grade level ($F = 5.364$, $df = 1/192$, $p .025$). Inspection of Figure 3 indicates that overall conformity increased from the second to the fifth grade when the informational-normative order was employed and decreased across the same grades when the normative-informational order was used.

**Post-experimental Questionnaire**

A thirteen item questionnaire was given to each subject after the experimental problems were completed. The first eight questions called for a simple yes or no answer. The ninth item required the subjects to speculate on the purpose of the study. The questionnaire follows, and the percentage of affirmative responses for its first nine items are given in Table III.
Fig. 3. Interaction of grade level and order for overall conformity.
POST-EXPERIMENTAL QUESTIONNAIRE

1. I think I got most of the dot problems right________.
   I think I missed most of the dot problems_________.

2. I am usually good at solving problems.__________.
   I frequently make mistakes on problems.__________.

3. The dot problems were too difficult for me. Yes No____

4. I hope I picked the same pictures as the rest of the class. Yes No____

5. I think there were right and wrong answers for the picture slides.
   * Yes No____

6. The pictures most people like are really the best pictures.
   Yes No____

7. People my age are good judges of art. Yes No____

8. I am a good judge of art. Yes No____

9. I think the purpose of this study was__________________________

10. List your four best friends (first and last names).

    ___________________________ ___________________________

    ___________________________ ___________________________

11. List four kids you like to be with.

    ___________________________ ___________________________

    ___________________________ ___________________________

12. List four kids you would invite to your party.

    ___________________________ ___________________________

    ___________________________ ___________________________

13. How many friends do you have with whom you share secrets, attend
    parties, and whom you see regularly every day?

    a. none  c. two  e. four
    b. one  d. three  f. five or more

14. Do some of your friends and you get together every day to share
    secrets, and see each other regularly? Yes No____
Table III

Percentage of Affirmative Responses
to the Post-Experimental Questionnaire

<table>
<thead>
<tr>
<th>Question</th>
<th>2nd Grade</th>
<th>5th Grade</th>
<th>8th Grade</th>
<th>11th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M F T</td>
<td>M F T</td>
<td>M F T</td>
<td>M F T</td>
</tr>
<tr>
<td>1.</td>
<td>84 92 88</td>
<td>77 77 77</td>
<td>88 65 77</td>
<td>88 81 85</td>
</tr>
<tr>
<td>2.</td>
<td>81 62 71</td>
<td>58 58 58</td>
<td>62 58 60</td>
<td>73 58 65</td>
</tr>
<tr>
<td>3.</td>
<td>27 15 21</td>
<td>08 15 12</td>
<td>04 08 06</td>
<td>15 15 15</td>
</tr>
<tr>
<td>4.</td>
<td>31 69 50</td>
<td>35 38 37</td>
<td>15 31 23</td>
<td>15 04 17</td>
</tr>
<tr>
<td>5.</td>
<td>81 50 65</td>
<td>54 73 63</td>
<td>35 31 33</td>
<td>50 27 38</td>
</tr>
<tr>
<td>6.</td>
<td>62 73 67</td>
<td>73 35 54</td>
<td>35 00 17</td>
<td>27 27 27</td>
</tr>
<tr>
<td>7.</td>
<td>69 85 77</td>
<td>38 54 46</td>
<td>38 12 25</td>
<td>65 54 60</td>
</tr>
<tr>
<td>8.</td>
<td>96 54 75</td>
<td>58 27 42</td>
<td>50 04 21</td>
<td>42 31 37</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2nd Grade</th>
<th>5th Grade</th>
<th>8th Grade</th>
<th>11th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C I DK</td>
<td>C I DK</td>
<td>C I DK</td>
<td>C I DK</td>
</tr>
<tr>
<td>9.</td>
<td>00 122 40</td>
<td>00 19 23</td>
<td>04 25 23</td>
<td>11 32 09</td>
</tr>
</tbody>
</table>

M = male
F = female
T = total
C = correct
I = incorrect
DK = do not know
Discussion

Peer Conformity

The purpose of this study was to test the influence of peer choices when they were in conflict with adult decisions. It was hypothesized that peer conformity would be a positive function of age. In addition, it was predicted that peers would be more influential on normative items; conversely, it was thought that adults would be more influential on informational items.

The significant increase in peer conformity revealed in the earlier studies of Hamm and Hoving (1971) and Utech and Hoving (1969) and predicted for the present study, was not found. In fact, inspection of the grade level means reveals that, if any change, a small decrease in peer conformity took place across grade level. While it is possible that peer conformity may not increase across grade level in all situations, other factors may have been responsible for the lack of effect. The experimental manipulations used in this study seem quite artificial, especially when compared with normal conditions of social influence. Hamm and Hoving (1971) found that live models produced a significant peer conformity effect in a peer-adult conflict situation when reported preferences abstractly attributed to each norm group were not effective. While taped models may be more effective than reported norms, they may still lack the impact necessary to influence subjects in a conflict situation. An imitation study by Bandura, Ross, and Ross (1963) found no differences between the effects of live models and film models in producing aggression. However, differences might exist in a more positive social setting.
Further research needs to be done in this area. No social feedback was available to subjects in the present study. Former studies that have employed either live models or the Crutchfield apparatus have provided communication in both directions, from model to subject and from subject to model. A third explanation might rely on the type of problems presented. The items used may have been dull and uninteresting for children, especially over a long test period. These factors, working singularly or together, may have resulted in a general lack of attention and, therefore, a low level of conformity behavior.

The study did not strongly support the hypothesis that peer conformity would be greater on normative than on informational items. Inspection of the cell means indicated that the main effect of items was nonsignificant, although in the expected direction; namely, peer conformity was greater on normative items than on informational items, or given the reciprocal relationship between adult and peer conformity, adult conformity was greater on informational items than normative items. The lack of a significant item effect, like the relationship between peer conformity and age, may have been at least partially due to the artificial nature in which peer conformity was measured. Were the study to be repeated with live models, the differences might be much greater.

The types of normative and informational items used in this study were based on an interpretation of the distinction made by Deutsch and Gerard about these two kinds of conformity. However, it is possible that the distinction between these items was not recognized by the subjects; that is, subjects tended to view both types of items
as similar. In spite of specific directions to the contrary, the questionnaire reveals that 55% of the students felt the picture items actually had correct answers. Also the dot problems may have been abstract and ambiguous enough to take on qualities of the normative items. The main effect of the item variable for overall conformity reported below, however, suggests that the distinction between normative and informational items may be warranted in some conformity situations.

While there was no expected sex effect for overall conformity, this variable provided a statistically significant difference for peer conformity, with males being influenced more by peers than females. However, the main effect of sex must be interpreted in terms of the Sex X Item interaction. Also relevant are the results of the questionnaire. The Sex X Item interaction and a simple main effects analysis revealed that boys were more influenced than girls on normative items; no similar difference was found to be significant for the informational items. Results of item eight in the questionnaire suggest that boys were more sure of their artistic judgments and, hence, would not be expected to look to adults for guidance. In contrast, the girls' lack of confidence may have made the art decisions difficult enough to merit compliance to adult suggestions. It should be remembered in considering this explanation that the possibility of an independent judgment did not exist.

Overall Conformity

The significant grade effect of overall conformity revealed that the tendency of children to match the answers of others was a decreasing
function of age. Some studies support, while others offer contrasting results to this developmental effect. Berenda (1950) using the original Asch-line tasks and Hoving (1964) using a modification of the Asch-line tasks found a significant negative relation between age and conformity. Both studies appear to have measured children's conformity behavior with highly structured and perceptually unambiguous material. In contrast to these findings, however, Hamm and Hoving (1969, 1971), employing two highly ambiguous tasks, found conformity to be a positive function of age. It has been suggested that task ambiguity is the important variable in determining the relationship between conformity and age. Indeed, Hoving, Hamm, and Galvin (1969) found a positive age relation when the task was ambiguous and a negative age relation when the task was unambiguous on a two-alternative dot task. However, a recent study by Hamm (1970), using several six alternative dot tasks which differed in ambiguity, found conformity to be a negative function of age on all tasks. This study, along with the present study, raise some doubt about the generality of the original studies by Hamm and Hoving (1969, 1971) which reported a strong positive relationship between conformity across age and task ambiguity.

Nevertheless, other interpretations may be offered to explain the negative relationship between age and conformity. Although the dot problems in the present study were designed to be highly ambiguous, only a small number of subjects reported on the questionnaire that the problems were too difficult for them. One possible explanation, then, for the decrease in conformity might be that the tasks were actually perceived an unambiguous and, therefore, the empirically
observer negative relationship might be consistent with previous findings which have used structured perceptual materials.

Still another reason may exist for the observed negative relationship between overall conformity and age. The models may not have been perceived as credible sources of information, particularly for older subjects. No correlation was found between subjects who could state the purpose of the study and overall conformity behavior ($r = .01$). However, inspection of the actual responses to the questionnaire reveals an increase with age in the number of students who made right or wrong guesses about the purpose of the study. Failure to believe in the stated reason of the experiment, or indeed, speculation about the experimenter's motivation, may have been detrimental to the social influence process. In any case, the most recent findings in the children's literature suggest that conformity is situationally specific. However, further work must be undertaken to discover those situational variables which produce different relationships between age and conformity.

The significant item effect revealed that informational items were associated with higher levels of conformity behavior than normative items. Deutsch and Gerard (1955) have stated that the motive involved in informational conformity is a desire to obtain knowledge of reality, to be correct in one's judgments, while the reason for normative conformity is a desire to be in agreement with the expectations of others in order to increase feelings of belongingness and self-esteem. Relatively speaking, in a school setting the need to be correct may take precedence over the need to be in agreement with
others and thereby serve to produce more relative conformity on informational than normative items. This seems particularly reasonable since only the experimenter and not the other students would see the responses. To be sure, with the present experimental procedure positive social feedback was not a possible reward. Perhaps having peers aware of the subjects' responses is as important as having subjects made aware of the peers' responses in the manipulation of conformity.

For studies investigating questions similar to those in the present work, a number of procedural improvements should be considered. First conformity studies which use live models can provide a number of advantages. Of course they are highly realistic. In addition they can give social feedback to the individual subjects in the form of facial expressions and gestures. Also if the confederates are chosen from a group to which the subject belongs, the added motivation of future contact with the person(s) could enhance the effect. Normative tasks, such as those used by Brittain (1963) and Utech and Hoving (1969), are probably also more motivating to subjects because they relate to familiar situations. The art pictures in the present study apparently served as informational items for many students. More relevant informational items, such as content questions from school courses, may also produce more interest for students. When the problems become so ambiguous and impossible as in the present study, students may lose all interest in actually trying to find correct answers thus making informational sources irrelevant.
Although the present study failed to strongly support its original hypotheses, nevertheless several conclusions may be drawn. First, the relation of grade level to overall conformity may be much more situationally specific than the previous literature suggests. Artificial techniques such as those used in the present study may provide a poor framework in which to observe social processes. They may, in fact, minimize the necessary social determinants of conformity. Researchers should attempt to develop a more equitable compromist between the rigors of experimental control versus the uncontrolled natural situation in which most conformity behavior occurs. Finally, the dichotomy between informational and normative conformity suggested by Deutsch and Gerard (1955) has gained some, but not totally convincing support from the present study.
References


## Table A

### Mean Conformity Scores

<table>
<thead>
<tr>
<th>Grade</th>
<th>Order</th>
<th>Peer</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>I</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Grade</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>2</td>
<td>I-N</td>
<td>5.31</td>
<td>4.92</td>
</tr>
<tr>
<td></td>
<td>N-I</td>
<td>5.23</td>
<td>4.46</td>
</tr>
<tr>
<td>5</td>
<td>I-N</td>
<td>4.84</td>
<td>5.92</td>
</tr>
<tr>
<td></td>
<td>N-I</td>
<td>5.00</td>
<td>5.31</td>
</tr>
<tr>
<td>8</td>
<td>I-N</td>
<td>5.53</td>
<td>4.08</td>
</tr>
<tr>
<td></td>
<td>N-I</td>
<td>5.00</td>
<td>6.15</td>
</tr>
<tr>
<td>11</td>
<td>I-N</td>
<td>4.85</td>
<td>5.54</td>
</tr>
<tr>
<td></td>
<td>N-I</td>
<td>5.85</td>
<td>5.31</td>
</tr>
</tbody>
</table>

- **M** = male
- **F** = female
- **I** = informational items
- **N** = normative items
- **I-N** = informational-normative order
- **N-I** = normative-informational order