Forty-five blind, school aged subjects (aged 6-18 years) were questioned to determine the influence of age on the choice of the blind as a reference group for social comparison of abilities. To assess the direction of social comparison behavior, each subject was presented with a replication of three questions (which differed in the degree to which they implicated blindness as a relevant factor in reference group processes) previously asked of early-blinded adults, a questionnaire, and two performance tasks. On the replicated questions, the school aged subjects were significantly more likely to exhibit comparison behavior than the earlier reported adult sample and significantly more likely to choose the blind for comparison purposes on two items than early blinded adults. The younger group (6-11 years) within the school aged sample chose the blind significantly more than the older group (12-18 years) on three items. The authors discussed results in the light of Festinger's theory of social comparison processes.
Abstract

This study investigated the influence of age on the choice of the blind as a reference group for social comparison of abilities by 45 blind, school-aged subjects, aged 6-18. A replication of three questions previously asked of early-blinded adults, a more specific questionnaire and two performance tasks were presented to each Ss to assess direction of social comparison behavior. On the replicated questions the school-aged subjects were 1) significantly less likely to report "no comparison" on all three items (p < .01), and 2) significantly more likely to choose the blind for comparison purposes on two items (p < .01) than early-blinded adults. Within the school-aged sample, a younger group (6-11) chose the blind significantly more than an older group (12-18) on three items (p < .01). Results are discussed in terms of Festinger's theory of social comparison processes.
SOCIAL COMPARISON OF ABILITY IN BLIND CHILDREN AND ADOLESCENTS

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In 1954, Festinger extended his theory of social comparison processes to include evaluation of abilities as well as opinions. The basic assumption underlying Festinger's theory is that within the human organism exists a drive to evaluate opinions and abilities. The theory predicts that "to the extent that objective, nonsocial means are not available, people evaluate their opinions and abilities by comparison respectively with the opinions and abilities of others." Festinger further speculates that "the tendency to compare oneself with some specific person decreases as the difference between his opinion or ability and one's own increases." A corollary to this hypothesis states that "given a range of possible persons for comparison, someone close to one's own ability or opinion will be chosen for comparison." The present study attempts to assess how age differences relate to the selection of one similar to oneself for social comparison of ability.

Those studies that have concerned themselves with the role of similarity in social comparison processes have generally used college undergraduates as subjects. Strauss (1968) was unique in studying reference group and social comparison processes among the totally blind. In this study a sample of 197 totally blind, white adults, ranging in age from 18 to 70 were administered a battery of three questions in the course of long
interviews conducted with each individual. Answers to these questions were to provide evidence on the comparative reference groups the blind select for three dimensions of self-appraisal. The three questions differed in the degree to which they implicate blindness as a relevant factor in reference group processes. One question concerned learning ability and was viewed as a more difficult area of competition than was a second question on personal appearance, which in turn was seen as a more difficult area of competition than a third question on character. Although open ended all three questions pressed the respondent to choose either the blind or the sighted as a comparative reference group and did not suggest to him such alternative possibilities as "both blind and sighted" or "never compare myself."

One of the outstanding findings of the Strauss study was the high percentage of respondents reporting "never compare myself." On the dimension of personal appearance 26 per cent reported no comparison; on the dimension of learning, 17 per cent reported no comparison; and on the dimension of character, 20 per cent reported no comparison. The author suggests that this pattern of avoidance of social comparison behavior among the blind is a method of protecting self-regard. The price paid for this comfort is a lack of ability to appraise oneself where objective bases for self-appraisal are lacking.

A second major finding of the Strauss study was that when the blind did engage in social comparison behavior, on the average 63 per cent chose the sighted as a comparative reference group. Only four totally blind respondents consistently chose the blind as a reference group for all three dimensions of comparison. According to Strauss.
such a finding strongly qualifies the principle of similarity in the choice of a comparative reference group.

The present study employs the totally blind to assess how age differences affect the choice of a comparative reference group. Several questions were to be answered: 1) Would the comparison avoidant behavior found by Strauss with adult subjects also be found with blind children and adolescents?; 2) Would the tendency for the blind to choose the sighted for comparison purposes reported by Strauss with adult samples also be found with blind children and adolescents?; 3) Do blind children differ from blind adolescents in their tendency to engage in social comparison behavior?; and, 4) Do blind children differ from blind adolescents in their likelihood of choosing the blind as a comparative reference group?

The first hypothesis tested was that a greater proportion of blind school-aged subjects would report engaging in social comparison behavior than was found with the early blinded adult subjects sampled by Strauss (1968). One of the demographic characteristics cited by Strauss as leading to comparison-avoidant behavior was age. After 18 years, increased age was associated with decreased social comparison behavior. Following from this we would expect that increased tendencies to engage in social comparison behavior would be found with decreased age at least until the onset of adolescence. It would also appear that the school situation typical of childhood and early adolescence would increase the need for self-evaluation and therefore, lead to a greater tendency to engage in social comparison behavior.
The second hypothesis tested was that a greater proportion of blind school-aged subjects would choose the blind as a comparative reference group than was found with the early blinded adult subjects sampled by Strauss (1968). Strauss found learning to be the area where the choice of the blind as a reference group was most frequently reported. In that the school situation provides a greater need for evaluation of abilities, it seems likely that a greater proportion of blind school-aged subjects than blind adults choose the blind as a reference group. Such a choice would likely be perceived as more fair than the choice of the sighted.

A third hypothesis stated that among the school-aged subjects, a greater proportion of the adolescent sample than the childhood sample would report engaging in social comparison behavior. If it is assumed that reference groups have increased importance during adolescence over childhood (Weinberg, 1953; Blos, 1941), then it seems logical that social comparison behavior which follows from association with others who are close to the individual, would be more frequent in adolescence than in childhood. Another line of reasoning would be to assume that egocentric or self-oriented behavior decreases from childhood to adolescence. If this is the case, then fewer instances of idiosyncratic evaluational techniques would be expected in adolescents and more comparative reference group behavior would take place.

The final hypothesis stated that among the school-aged subjects a greater proportion of the adolescent sample than the childhood sample would choose the blind as their comparative reference group. If it is again assumed that reference groups have increased importance in the adolescent
years, then similarity should have increased importance in adolescence over childhood. If similarity has greater importance in adolescence than in childhood, then the choice of the blind for a comparative reference group would be expected to increase correspondingly.

Method

Subjects: The subjects for the present study were 45 resident students at the Ohio State School for the Blind in Columbus, Ohio. Subjects were divided into two groups by age. The younger group, referred to here as the childhood sample, consisted of 4 girls and 11 boys between 6 and 11 years of age. The older group, referred to here as the adolescent sample, consisted of 15 girls and 15 boys between 13 and 18 years of age. In order to qualify for the present study, the subjects were required to be totally blind or have only minimal light perception. Children with object perception and those who were not totally blind before the age of 5 were not included in the sample. All the students at the school who met the requirements of the study were used.

Because of the restrictiveness of subject selection several differences in demographic characteristics were present in the sample. Boys were significantly older than girls in the childhood sample (t=2.91, p<.05); the mean age of the total childhood sample was 9.42. In the adolescent sample, girls were slightly older than boys, although the difference is not statistically significant (t=1.73). The mean age of the total adolescent sample was 15.69. Boys had attended the state school significantly longer than had the girls in the childhood sample (t=4.483, p<.01). The difference in the adolescent sample was not significant.

The school psychologist supplied information on general ability level and made a rating of general level of adjustment for each subject. The two
samples were roughly equivalent in ability level and no important differences were observed in general level of adjustment between the two samples or between sexes within each sample.

Procedure: Each subject was interviewed separately for approximately 35 minutes in a room set aside in the hospital at the school. Three sections of the interview were designed to assess social comparison behavior with regard to ability. The first of these constituted a replication of the questions Strauss asked of blind, adult subjects. This was followed by a second section containing a Social Comparison of Abilities Questionnaire which was designed specifically for this study. The final section of the interview consisted of evaluation of ability on two performance tasks.

The interview consisting of the Strauss questions, the Social Comparison of Abilities Questionnaire, and the first of the performance items was put on a Wollensak tape recorder and played to each subject. If the subject did not understand the instructions, or if he wished a question repeated, the tape was stopped and the experimenter repeated the question or answered the question. In order to assess the validity of the self-report measure of social comparison behavior, one week after the interviews were completed, 28 of the 30 subjects in the adolescent sample were group administered a Childrens Social Desirability Questionnaire (Crandall, Crandall, and Katovsky, 1965) and scores were correlated with each item of the entire interview. In no case was a significant correlation (p < .05) found indicating at least partial support for the validity of the self-report measure.

Strauss Questions: In order to test the first two hypotheses comparing the social comparison behavior of the present school-aged sample with that of the earlier reported adult sample. The questions asked by Strauss of the
early-blinded adult subjects were replicated. The questions were changed only slightly by substituting (men/women) with (boys/girls) or "people" with "children" to make them appropriate for the younger subjects. The questions were as follows:

1. When judging your own physical appearance, are you likely to compare yourself or to think of yourself in comparison with (boys/girls) of your own age who are blind or who can see?

2. Suppose someone asked you if you were a quick learner. In thinking of your answer, would you be more likely to compare yourself with children of your own age who are blind or who can see?

3. When you think about your character and whether you are a good person, do you usually think of yourself in comparison with blind children or children who can see?

**Social Comparison of Ability Questionnaire:** The questionnaire developed for the present study represents an attempt to improve upon the Strauss questions by decreasing the level of abstraction and by requiring the subject to make an actual evaluation before describing the reference group used. The respondent was asked to judge the goodness of his typical performance on a number of abilities, half of which were designed to be of high relevance to blindness (e.g., mobility) and half of which were designed to be of low relevance to blindness (e.g., paying attention). After the subject had made an evaluation of his ability, he was asked when thinking of how good he was at a particular ability, did he think of himself in
comparison with children of his own age who were blind or who could see. The introductory instructions present him with four alternative possibilities: (1) comparison with blind; (2) comparison with sighted; (3) comparison with both blind and sighted; and (4) no comparison. It was hoped that the four choice situation would yield more relevant data on noncomparison behavior than the Strauss two choice technique. Questions were presented as follows:

a) How good are you at getting around? (Very good, good, fair, poor, very poor)

b) When you think of how good you are at getting around, do you think of yourself in comparison with (boys/girls) of your own age who are blind or who can see?

Those questions designed to be relevant to blindness concerned getting around, reading, and earning money when one gets out of school. Those questions designed to be of low relevance to blindness concerned paying attention to the teacher, remembering what one hears, and staying out of trouble.

Performance Items: Two performance tasks were presented to each subject to further decrease the level of abstraction involved in the self-report of social comparison behavior. Task one consisted of two trials of counting beeps in which the subject was asked in judging how well he did in counting the beeps whether he evaluated himself in comparison with other blind children or children who could see. The first trial consisted of 14 beeps presented very quickly; the second trial consisted of 4 beeps presented very slowly. Taken as a whole, the beep counting task was designed as one irrelevant to blindness.
The second task consisted of bead stringing where the subject was asked to string beads of four different colors and four different shapes on metal poles that were provided. Each subject was first introduced to the beads and then told their color as he felt their shape. A box held 16 red beads shaped like eggs, 16 yellow beads shaped like balls, 16 blue beads shaped like spools of thread, and 32 orange beads shaped like doughnuts. The subject was presented with a prestrung pole to serve as a model and asked to generate the same pattern on the empty poles as quickly as he could. The subject was told that he had two minutes to put as many beads on the poles as he possibly could that he would be racing against time. After two minutes, the subject was stopped and the number of correctly strung beads was counted. The subject was given his score and asked how he felt he had done. He rated his performance as "very good, good, average, poor, or very poor." After the judgment was made, the subject was asked when making his evaluation did he compare himself with blind children or children who could see. This task was designed to be highly relevant to blindness.

Results

The first hypothesis to be tested was that the proportion reporting comparison behavior in the combined childhood and adolescent samples would be significantly greater than the proportion reported in early-blinded adult sample sampled by Strauss (1968). Table 1 reports the comparison between the percent reporting comparison behavior in the present sample of blind children and adolescents and the adult sample reported by Strauss in response to her original three social comparison questions. The null hypothesis of no difference in proportion reporting "no comparison" between
the two samples is rejected on all three questions ($p < .01$). In each case the school-aged sample is significantly more likely to report comparison behavior than the earlier reported adult sample.

The next hypothesis to be tested was that the proportion choosing the blind as opposed to choosing any other category would be greater in the school-aged sample than in the early-blind adult sample reported by Strauss. In a test of the influence of age differences on the choice of the blind as a reference group, a number of analyses were made for the number choosing to compare with the blind and the number choosing to compare with any of one of the categories of "sighted," "both blind and sighted," or "no comparison." The responses are thus dichotomized into the number choosing blind and the number choosing "other." Phi coefficients were computed and converted to chi squares which yield a level of significance. The .05 level of significance was adopted as a critical value. A comparison between the present sample of blind school-aged subjects and the adult sample reported by Strauss in the tendency to choose the blind as a comparative reference group as opposed to the choice of sighted, both blind and sighted, or no comparison is presented in Table 2. The null hypothesis tested here is of no difference in the number choosing "other" between the school-aged sample and the adult sample reported by Strauss. The null hypothesis is rejected on the dimensions of learning.
and character ($p < .01$); differences for comparison of physical appearance were in the expected direction but not statistically significant.

The next two hypotheses dealt with differences between the childhood and adolescent samples. The first of these stated that the proportion reporting "no comparison" would be less in the adolescent sample than in the childhood sample. The null hypothesis in this case was of no difference between the proportion reporting comparison behavior and the proportion reporting "no comparison." In that there were only seven "no comparison" responses in the entire sample, no significant differences between the groups as measured by the Fisher-Yates table of exact probabilities was found. It was noted, however, that all seven responses of "no comparison" were made by four subjects in the younger group.

The final hypothesis to be tested was that the proportion reporting the choice of the blind as a comparative reference group would be greater in the adolescent sample than in the childhood sample. Table 3 presents

Insert Table 3 about here

the comparison of the childhood and the adolescent samples in regard to the tendency to choose the blind as a reference group as opposed to the choice of sighted, both blind and sighted, or no comparison. The null hypothesis being tested is no difference between number choosing blind and number choosing "other" in the childhood as compared to the adolescent sample. In three instances the null hypothesis was rejected. The childhood sample was more likely to choose the blind as opposed to the choice of "other" on comparison of appearance ($p < .01$), character ($p < .05$), and performance in counting four slow beeps ($p < .01$). All of these differences are in a direction opposite than the hypothesis would predict.
An analysis of sex differences was made on the adolescent group in terms of the tendency to choose the blind as a comparative reference group. Because of the unequal number of subjects in the childhood sample, it was felt that age differences might confound any sex differences. The analysis indicated that boys were significantly more likely to choose the blind as a comparative reference group than were girls in social comparison of reading ability ($p < .05$). None of the other comparisons was statistically significant.

Discussion

Unlike the results reported by Strauss, the present study with younger subjects found only seven responses of "no comparison" and all of these reported by four subjects in the childhood sample. These few reports of "no comparison" in the childhood sample could be interpreted as chance responding when the intent of the question was not clearly understood. Due to the almost unanimous choice of comparison when responses were dichotomized into comparison versus "no comparison," it was not possible to analyze those variables that were presumed to affect the tendency to avoid social comparisons as Strauss had done earlier. It is difficult to pinpoint what is responsible for the wide discrepancy between the Strauss study and the present results particularly in the choice of "no comparison." It seems entirely possible that the high frequency of the report of no comparison in the Strauss study might be an artifact of the methodology used. Had there been an actual judgment made about the ability or a performance task performed, it seems likely that results with adults would be more in line with the present findings.
The present results indicate that at least in evaluating learning and character the blind were chosen as a reference group proportionately more by school-aged subjects than by earlier reported adult subjects. The segregated school setting with so many other blind children available for comparison purposes would likely affect this result. It is not clear to what extent other blind people were available to each individual in the early-blinded adult sample. Nonetheless, it should be noted that support is found for Festinger's theory with school-aged blind subjects that was found with early-blinded adult subjects. At this point the full meaning of the discrepancy in findings is not clear.

The results of the comparison of the childhood and adolescent groups within the school-aged sample is easier to interpret. The number choosing the blind as opposed to the number choosing the "other" category was significantly greater in the childhood sample for comparison of appearance, character, and ability to count slow beeps. All of these items were designed to be of low relevance to blindness. The adolescent's greater tendency to choose a category other than blind on evaluation of blind irrelevant items may be a function of their greater ability to discriminate the degree of relevance to blindness. As in the case of evaluating character a meaningful comparison can be made with the sighted or both blind and sighted. It should be noted that the determining factor in the direction of comparison is likely the relevance of the dimension of evaluation to blindness rather than a difference in social comparison processes between the two groups.

The only sex difference to emerge in the present study was the greater likelihood of boys to choose blind as opposed to the other three categories for social comparison of reading ability. This may be a function of the
greater difficulty boys have with reading. By using the blind as a reference group, the boys would be protecting their self-regard by avoiding comparison with a group that may have an unfair advantage of vision. This difference is more likely a function of the level of difficulty of the task than a difference in reference group behavior between the sexes.

Results on the block stringing task raise some methodological questions. In the evaluation of block stringing ability, 40 of 45 chose to compare with the group most similar, i.e., the blind. This item required the most involvement on the part of the subject and led to the most behaviorally based evaluation of ability. In that this item is of high relevance to blindness, the results seem to indicate that when this is the case, the blind are used as a comparative reference group by almost all the subjects regardless of age. The lack of magnitude in the choice of the blind on other items, e.g., mobility, may be due to the lack of a concrete behavioral reference to the self-report questions. It is difficult to assess whether the differences obtained in direction of social comparison are a function of true differences in social comparison processes or differences in the likelihood of self-report of direction of social comparison behavior between the groups. In future research utilizing self-report measures the attempt should be to supply a greater behavioral reference for determining the direction of social comparison behavior. In general, the continued use of exceptional children in testing research hypotheses and elaborating psychological theories would be recommended.
Footnote

1Based on a thesis presented to the faculty of the Department of Psychology, the Ohio State University, in partial fulfillment of the requirements of the M.A. degree by the first author under the direction of the second author. The authors wish to express their gratitude to the administration of the Ohio State School for the Blind and to Mr. Donald Adamsclick, school psychologist, for their cooperation. Appreciation is also expressed to the Ohio State University for supplying the computer time necessary for the analysis of the data.
REFERENCES

Bios, P. *The adolescent personality, a study of individual behavior.*


Table 1

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Behavior Comparison</th>
<th>Percent Reporting</th>
<th>t</th>
<th>df</th>
<th>p</th>
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<td>8.333</td>
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<td>0.000</td>
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<td></td>
<td></td>
<td>7.727</td>
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<td>&lt;.01</td>
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</table>

Note: t-test for percent reporting differences between proportions.

Response to three social comparison questions

Blind children and adolescents and the adult sample reported by Strauss (1968) in comparison between the percent reporting comparison behavior in the present sample of

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Behavior Comparison</th>
<th>Percent Reporting</th>
<th>t</th>
<th>df</th>
<th>p</th>
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</thead>
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<td>&lt;.01</td>
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Note: t-test for percent reporting differences between proportions.

In the present sample of blind children and adolescents compared to the adult sample reported by Strauss (1968).
Table 2

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Choosing Blind</th>
<th>Choosing Other</th>
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<tbody>
<tr>
<td>Physical Appearance</td>
<td>97 (N=45)</td>
<td>36 (N=85)</td>
</tr>
<tr>
<td></td>
<td>21.92</td>
<td>31.83</td>
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<td>Character</td>
<td>94 (N=45)</td>
<td>83 (N=85)</td>
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<td></td>
<td>0.167</td>
<td>2.14</td>
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<td>Learning</td>
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<td>11 (N=85)</td>
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<td></td>
<td>4.422</td>
<td>4.17</td>
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<tr>
<td>Character</td>
<td>22 (N=45)</td>
<td>23 (N=85)</td>
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<tr>
<td></td>
<td>0.412</td>
<td>2.23</td>
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<td>Character</td>
<td>31 (N=45)</td>
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<tr>
<td></td>
<td>0.627</td>
<td>3.67</td>
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</table>

Note: Table 2 compares the present sample of blind children and adolescents with the adult sample of early-blind individuals, as reported by Strauss (1968), in terms of the tendency to choose blind individuals as a reference group versus choosing other individuals as a reference group.
<table>
<thead>
<tr>
<th>Strauss Questions</th>
<th>Choosing Blind</th>
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<td>4</td>
<td>.4714</td>
<td>9.999</td>
<td>.01</td>
</tr>
</tbody>
</table>

Table 3

Comparison Between the Childhood and Adolescence Samples in Regard to the Tendency to Choose the Blind as a Reference Group as Opposed to the Choice of the Sighted, Both Sighted and Sighted, or "No Comparison".
### Table 3 (continued)

<table>
<thead>
<tr>
<th>Phi</th>
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<tr>
<td>2.800</td>
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<td>0.600</td>
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<tr>
<td>2.542</td>
<td>0.3776</td>
<td>8</td>
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</table>

#### Performance Items

1. **Beeps**
   - a) 14 beeps-fast (N=15) 3 ch ado
   - b) 4 beeps-slow (N=30) 8 ch ado

2. **Block stringing**
   - 14 beeps-fast (N=30) 22 ch ado

3. **Staying out of trouble**
   - 1 ch ado

4. **Earning power**
   - 14 beeps-fast (N=15) 7 ch ado

5. **Performance Items**

6. **Staying out of trouble**
   - 14 beeps-fast (N=30) 22 ch ado