A study examined the responses of children at several age levels to seven visual elements presented to them on book jackets. Subjects ranged in age from kindergarten to fifth grade. The pairs of book jackets that were selected represented contrasting treatments of seven visual elements: (1) action, (2) color, (3) style, (4) characters, (5) detail, (6) proportion, and (7) space. Almost no choice patterns for book jackets emerged for kindergarten children, whose only consistent choices seemed to be for illustrations depicting deep space. The only preferences of second grade students were the bright colors selected by the males. Third grade students were more discriminating: girls preferred illustrations with bright colors, while boys' preference for bright colors was correlated only with the illustrations showing no action. Boys also chose illustrations with less detail. The elements for which fourth and fifth grade children seemed to have definite opinions were in the areas related to color, detail, proportion, and space. The study concluded that males prefer bright colors, less detail, and deep space in cover illustrations while females prefer illustrations with more detail. The study suggests that librarians who select books should be aware of the great degree to which the visual elements affected the choices of older children. (A list of books used in the study is appended.) (HTH)
DO CHILDREN JUDGE A BOOK BY ITS COVER?

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DO CHILDREN JUDGE A BOOK BY ITS COVER?

What are the surface features of a book cover or book jacket which affect children's interest in a book? Does the intensity of color in illustrations influence their selections? Does the action revealed on the book jacket affect the appeal of the book? Are there other superficial characteristics of illustrations on book jackets and book covers, such as depiction of space, detail, proportion, or number of characters, which affect the interest a book holds for its potential readers?

These questions were asked by a group of students in a graduate course in children's literature as the students delved into factors which influence children's choices when selecting books.

Concurrent with the interest in the attractiveness of visual elements of book covers was the discarding, by a local elementary school, of hundreds of book jackets. One of the teachers in the elementary school, who was also a student in the course, brought boxes of book jackets to share with the other graduate students. The spontaneous combination of the interest in characteristics of book covers which attract children and the availability of book jackets triggered the investigation which followed.

Although the old proverb, "Don't judge a book by its cover" is believed and proclaimed by many, the students in the course, all of whom
were teachers, had observed that children do choose their reading material in response to what they see on the cover of the book.

When discussing illustration and book design in a recent text of children's literature, Vandergrift (1980) stated that most of us choose our books by their covers. She continued by stating that the cover of a book attracts us initially, and therefore children's books are often jacketed with attractive dust covers which are identical to the illustrations on the book cover. Vandergrift stated:

"Most children (and adults) are more likely to select an attractive looking book than one that is dull in appearance and gives no clue to its contents. Beyond this, there seems to be little known about the effects of covers and book design on children's choices." (p. 81)

**Purpose of Study**

The purpose of this study was to examine the responses of children of several age levels to seven visual elements presented to them on book jackets. The responses were forced-choices in which children selected one book jacket from two in which a given visual element was shown. Each element was dichotomized by "more" and "less" with each representing either number or saliency of the element. The criteria for the categorization of each element follow:

<table>
<thead>
<tr>
<th>Element</th>
<th>More</th>
<th>Less</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action</td>
<td>Illustration depicts active involvement</td>
<td>Illustration depicts no action</td>
</tr>
<tr>
<td>Element</td>
<td>More</td>
<td>Less</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>Color</td>
<td>Illustrations are in bright color</td>
<td>Illustrations are in muted, faded tones</td>
</tr>
<tr>
<td>Style</td>
<td>Illustrations are in realistic style</td>
<td>Illustrations are in cartoon style</td>
</tr>
<tr>
<td>Characters</td>
<td>Illustrations show five or more characters</td>
<td>Illustrations show less than five characters</td>
</tr>
<tr>
<td>Detail</td>
<td>Illustrations show great detail</td>
<td>Illustrations show little detail</td>
</tr>
<tr>
<td>Proportion</td>
<td>Illustrations show correct proportions</td>
<td>Illustrations show incorrect proportions</td>
</tr>
<tr>
<td>Space</td>
<td>Illustrations depict a deep plane</td>
<td>Illustrations depict a shallow plane</td>
</tr>
</tbody>
</table>

**Research Background**

With the suggestion from Vandergrift (1980) that information on the impact of interest patterns on book selection among children is sparse, a review of literature was initiated.

Research reports show interest patterns of different sexes, children of different ethnic groups, different age levels, and various soci-economic strata (Feeley, 1979; Brown & Krockover, 1974).

Other research has been reported which examined the effects of characters' race on the children who select the story to read. Some researchers have concluded that children prefer stories about characters of their own race (Rowland & Hill, 1965). Similarly, it has been suggested "at boys like books which portray male characters and girls prefer female characters in their stories (Tibbets, 1974). A more
recent study, however, failed to substantiate this suggestion (Goodhue, 1982).

In an investigation of the influence of artistic styles, text content, sex and grade level on children's preferences, it was found that children in grades one, two and three preferred photographs and cartoon illustration styles over realistic or expressionistic styles. There was some support in this study for the assumption that text content affects choice of illustration style. Children seemed to prefer animal stories in cartoon form while seeking photographic illustrations in informational tradebooks. The researcher found that style preferences increased with age, but there were no sex differences (Ramsey, 1979).

Only one study was found which focused on the influence of visual elements on children's choices of reading materials (Stewig, 1975). Stewig investigated preferences of children on five visual elements found on the covers of books: color, shape, proportion, detail and space. He studied 285 children comprised of three age levels (preschool, kindergarten and first grade), both sexes, three social classes (lower, middle and upper), and two races (black = 60 children, white = 225 children). His method of investigation included two sets of slides for each visual element which he showed to the children and asked for a response of preference. The slides contained the same subject content, but varied according to the following:

1. Color: very realistic color, contrasted with highly unrealistic color.

2. Shape: very flat objects contrasted with modeled shapes
representing a three dimensional quality.

3. Proportion: very realistically proportioned objects, contrasted with objects having very exaggerated proportions.

4. Detail: illustrations containing many details contrasted with ones which contained very few details.

5. Space: illustrations with a very flat picture plane contrasted with ones featuring very deep plane. "(p. 95).

Stewig found definite preference patterns for each of the elements. Some differences were related to age, some to race, others to sex or social class. Specifically, he found that realistic color and flat shapes were preferred by older, upper class, white children. He found that boys and white children preferred realistic proportions, while older and upper class children preferred pictures with fewer details and shallow space. Stewig concluded that the results of the study could be of value to designers of children's book jackets, to artists, to librarians when considering book purchases, and to the classroom teacher who may manipulate the elements presented to children in an effort, not only to meet their preferences, but to expand and broaden their choices.

Research Questions

Do children, ages 5 through 10, have preferences for specific visual elements found on the covers and jackets of books?

Are there correlations of elements which may cluster by age or sex?
Sample

The subjects for this study ranged from children in kindergarten to fifth grade. Most of the subjects were students in the classrooms of the writers of this report.

The kindergarten population was composed of 14 boys and six girls of upper and middle social strata from a private preschool program. There were also six boys and nine girls from a public school program located in a middle class suburban neighborhood. Thirty five children formed the total kindergarten population.

A group of middle to upper class suburban children, nine boys and 11 girls, from a private parochial school comprised part of the second grade population. The remainder were nine boys and 11 girls of rural, middle class from a public school program. The total population of second grade was 40 children.

The third grade population was composed of ten boys and ten girls from a rural lower class community including children from migrant families as well as foreign cultures. There were also ten boys and ten girls from a suburban middle class community including children bussed from a neighboring urban community. Forty children were studied in the third grade sample.

The fourth grade population consisted of 11 boys and 13 girls from an upper class suburban community. The ten boys and 12 girls from the fifth grade were from the same school and community as were the fourth graders.

This research team is very aware of the limitations of generaliza-
tions of results based on a sample as has been described. The team, however, believes that, although not randomly sampled, the population for this study is fairly representative of the communities with which these researchers (teachers) work and that information gained from the study will be helpful in understanding the book choices of children in their schools.

Procedure

Pairs of book jackets were selected which represented contrasting treatments of the seven visual elements. Different jackets were selected for each grade level with the exception of grades four and five. It was considered more important to match grade level with content interest than to use identical stimuli for all grade levels. Consequently, comparisons were made within grade level and not across all levels, since stimuli were different for grades K-3 and alike for grades four and five.

The criteria for dichotomizing each element were adhered to by the researchers as they worked in teams to select book jackets. Content validity was established with each set of jackets as the team for each grade level checked other teams' selections.

The book jackets representing each visual element are shown by grade level in Appendix A.

Data Collection

A consistent procedure was followed by two data collectors for kindergarten, two data collectors for second grade and two data collectors for third grade. The procedure included an individual
session with each child in which the child was shown book jackets and asked three questions related to the jackets. Following the questions, each child was subjected to a forced-choice situation in which he/she was asked to look at two book jackets simultaneously and indicate which book jacket was preferred. The pairs of book jackets which represented the visual elements were shown in the following order: action, color, style, characters, detail, proportion and shape. Data were recorded with a one to indicate a positive choice and zero to indicate the lack of a positive choice.

A variation of procedure occurred as data were gathered by the collector of fourth and fifth grade responses. Fourth and fifth grade subjects were shown the same stimuli and data were gathered in group settings instead of individually. The data collector distributed recording forms to each fourth and fifth grade subject and asked them to respond appropriately to the forced-choice activity as book jackets were shown to the whole class. As they were shown the paired book jackets representing the seven visual elements, students checked their preferences on the recording forms. (Recording form shown below.)

```
A B C D E F G
1 2 1 2 1 2 1 2 1 2 1 2
```
Data Analysis

The data were analyzed with discriminant analysis techniques. An attempt was made to predict the grade level of a subject based on preferences, but significance was not attained. Sixty-one of the 161 responses were inaccurately classified indicating that the grade levels of subjects were not predictable by the selections made in the forced-choice activity. Predictability was higher in preschool and decreased with each succeeding grade level. This finding is probably indicative of the broadening interests of children as they grow older.

Additional discriminant analyses were made by grade level. In the discriminant analysis for each grade level, each element with its two variations was correlated to all other elements. Sex was an additional factor which was analyzed for each grade level.

Findings

The frequency distribution of the forced-choices are shown in the following chart by grade level, sex, and by element. Under each element, there is a numeral one (1) or zero (0). The numeral one indicates the degree in the element referred to as more while the 0 represents less. For example, in the element of action, 1 represents action while 0 represents no action. In the color element, 1 represents bright color and 0 represents faded or muted color. For further explanation, see the criteria for each element on pages 5 and 6.
The results of the study are summarized in the following chart by grade level, the elements which correlated at a significant level and the probability level.

<table>
<thead>
<tr>
<th>GRADE LEVEL</th>
<th>CORRELATED ELEMENTS</th>
<th>LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>KINDERGARTEN</td>
<td>deep space - no action</td>
<td>.0078</td>
</tr>
<tr>
<td></td>
<td>males - bright color</td>
<td>.0198</td>
</tr>
<tr>
<td>THIRD</td>
<td>females - bright color</td>
<td>.0285</td>
</tr>
<tr>
<td></td>
<td>males - less detail</td>
<td>.0266</td>
</tr>
<tr>
<td></td>
<td>no action - bright color</td>
<td>.0285</td>
</tr>
<tr>
<td>FOURTH</td>
<td>males - bright color</td>
<td>.0003</td>
</tr>
<tr>
<td></td>
<td>females - more detail</td>
<td>.0024</td>
</tr>
<tr>
<td></td>
<td>males - deep space</td>
<td>.0488</td>
</tr>
<tr>
<td></td>
<td>muted color - out of proportion</td>
<td>.0322</td>
</tr>
<tr>
<td></td>
<td>more detail - out of proportion</td>
<td>.0005</td>
</tr>
<tr>
<td></td>
<td>deep space - correct proportion</td>
<td>.0062</td>
</tr>
<tr>
<td></td>
<td>less detail - deep space</td>
<td>.0259</td>
</tr>
<tr>
<td></td>
<td>bright color - less detail</td>
<td>.0196</td>
</tr>
<tr>
<td>FIFTH</td>
<td>males - bright color</td>
<td>.0177</td>
</tr>
<tr>
<td></td>
<td>males - deep space</td>
<td>.0068</td>
</tr>
<tr>
<td></td>
<td>females - few characters</td>
<td>.0006</td>
</tr>
<tr>
<td></td>
<td>females - more detail</td>
<td>.0095</td>
</tr>
<tr>
<td></td>
<td>more action - out of proportion</td>
<td>.0527</td>
</tr>
<tr>
<td></td>
<td>more detail - deep space</td>
<td>.0154</td>
</tr>
<tr>
<td></td>
<td>deep space - correct proportion</td>
<td>.0300</td>
</tr>
</tbody>
</table>
Conclusions and Implications

In this study almost no choice patterns emerged for kindergarten children in their preference of book jackets. There were no sex differences for this group of children and the only consistent choices seemed to be a preference for illustrations depicting deep space. For the kindergarten teacher, the implications are related to the openness with which these children accepted book jackets depicting various elements.

In this study the second graders were almost as mixed in their choices as the kindergartners were with the only preference being that of bright colors selected by males.

As was suggested for kindergarten teachers, teachers of second grade children may also be blessed with the lack of preferences among children for illustration elements.

Traditionally, it has been accepted that boys and girls begin different interests around the third grade, and with this study, differences began to increase among third grade children. Girls preferred illustrations with bright colors while boys' preference for bright colors was correlated only with the illustrations showing no action. Another sex difference was that boys chose illustrations with less detail.

Decidedly, the third grade children were more discriminate in selecting book jackets which appealed to them. If these preferences transfer to the library, there are some books which third graders will
not select. Teachers must be cognizant of book covers and share the content of books which may not be selected on the basis of the visual elements of the cover.

The students from fourth and fifth grade in this study expressed definite patterns of preferences and correlations both by grade level and by sex.

Some areas in which fourth and fifth grade children did not express preference are action/non-action and style. The element of style which contrasts realistic illustrations with cartoons was the only element which received mixed preferences in all grades. In second and third grade males, there was an even division of choices between the two.

The element which dealt with the number of characters shown on the book jacket was given a decided preference only among fifth grade girls who chose the illustration with fewer than five characters.

The elements for which fourth and fifth grade children seemed to have definite opinions were in the areas related to color, detail, proportion and space.

Some generalizations are that males still prefer bright colors, less detail, and deep space in illustrations on book jackets while females prefer illustrations with more detail. Librarians who select books should be aware of the great degree to which the visual elements affected the choices of the older children in this sample.
There were numerous correlations for fourth grade females:

- bright colors with less detail
- muted colors with out of proportion illustrations
- less detail with deep space
- correct proportions with deep space

Correlations for fourth grade males were:

- bright colors with less detail
- muted colors with out of proportion illustrations
- high detail with out of proportion illustrations
- less detail with deep space
- correct proportions with deep space

Fifth grade male and female correlations were:

- high detail with deep space
- correct proportions with deep space

Publishers of books for children and the illustrators of the book jackets should consider the results of this study.

Teachers of older children should not only be aware of the existence of preferences for some visual elements, but could discuss these preferences with students who may seek to understand the superficiality of the visual elements on book jackets.

Although the limitations of this study are recognized, the results have indicated that below grade three, children indeed do not judge a book by its cover, and in grades four and five, children are very preferential to some of the visual elements of illustrations on book jackets.
Future research, using larger randomized samples, could complement the known information regarding the effect of visual elements of illustration on children's book choices.
APPENDIX A

Selection of Books Used to Assess Influence of Seven Characteristics on Book Choice

ACTION

Preschool - K: Sid Fleishman, McBroom and the Big Wind
2nd Grade: V. Haviland, Favorite Fairy Tales Told in Ireland
3rd Grade: C.R. Bulla, Surprise for a Cowboy
4th and 5th Grades: Carolyn Lane, The Winnemah Spirit

NON-ACTION

Preschool - K: Ellen Raskin, Spectacles
2nd Grade: P. Showers, In the Night
3rd Grade: E.O. Jones, Awig
4th and 5th Grades: Mary Stolz, The Noonday Friends

BRIGHT COLOR

Preschool - K: Constance C. Greene, The Good Luck Bogie Hat
2nd Grade: J. Varga, Circus Cannonball
3rd Grade: R. Hoban, Tom and the Two Handles
4th and 5th Grades: Jay Williams & Raymond Abrashkin, Danny Dunn and the Voice From Space

DULL COLOR

Preschool - K: Robert Censori, Cowgirl Kate
2nd Grade: J.M. Lexau, Striped Ice Cream
3rd Grade: J. Laskowski, Master of the Royal Cats
4th and 5th Grades: Mildred Lawrence, Touchmark

REALISTIC

Preschool - K: Martha Whitmore Hick'an, I'm Moving
2nd Grade: E. Shepherd, Jellyfishes
3rd Grade:  J. Street, Good-by, My Lady
4th and 5th Grades:  Mary Anne Gross (editorial), Ah, Man, You Found Me Again

CARTOON
Preschool - K:  Ivan Sherman, I Am A Giant
2nd Grade:  M. Hall, Headlines
3rd Grade:  Dr. F. Dodson, I Wish I Had a Computer That Makes Waffles
4th and 5th Grades:  Duncan Emrich, The Whim-Wham Book

5 + CHARACTERS
Preschool - K:  Leonard Kessler, On Your Mark, Get Set, Go
2nd Grade:  C.R. Bulla, Open the Door and See All The People
3rd Grade:  M.E. Selsam, Benny's Animals
4th and 5th Grades:  C.R. Bulla, Viking Adventure

FEWER THAN 5 CHARACTERS
Preschool - K:  Patricia Lauber, Clarence and the Burglar
2nd Grade:  C. Woolley, Ginnie and Geneva
3rd Grade:  C. Bonsall, The Case of the Hungry Stranger
4th and 5th Grades:  Peggy Parish, Pirate Island Adventure

HIGH DETAIL
Preschool - K:  Kevin Crosley-Holland, The Fire Brothers
2nd Grade:  B. Potter, The Tale of Tuppenny
3rd Grade:  M. Schlein, The Girl Who Would Rather Climb Trees
4th and 5th Grades:  Prudence Andrew, Una and the Heaven Baby

LOW DETAIL
Preschool - K:  Matthew Barish, Kids Book of Cards and Posters
2nd Grade:  D.O. Van Woerkom, Sea Frog City Frog
3rd Grade:  E. Bram, Saturday Morning Lasts Forever
4th and 5th Grades: Hans Peter Richter, *Friedrich*

**CORRECT PROPORTION**

Preschool - K: Jennifer Wayne, *Sprout and the Dog Sitter*

2nd Grade: J. Beim, *The Smallest Boy in the Class*

3rd Grade: G. Mendoza, *Norman Rockwell's Americana ABC*

4th and 5th Grades: Earl Kroger, Sr., *Jocko, A Legend of the American Revolution*

**INCORRECT PROPORTION**

Preschool - K: Charlotte Pomerantz, *Ballad of Long-tailed Rat*

2nd Grade: M. McClintock, *David and the Giant*

3rd Grade: P.A. Whitney, *Secret of the Tiger's Eye*

4th and 5th Grades: Janette Sebring Lowrey, *Six Silver Spoons*

**FLAT**

Preschool - K: Penelope Lively, *Boy Without a Name*

2nd Grade: D.A. Adler, *3D, 2D, 1D*

3rd Grade: T. Ungerer, *Snail, Where Are You?*

4th and 5th Grades: Franklyn M. Branley & Eleanor K. Vaughan, *Timmy and the Tin Can Telephone*

**DEPTH**


2nd Grade: G.S. Cook, *Fish Heads and Fire Ants*

3rd Grade: R. & R. Dawson, *A Walk in the City*

4th and 5th Grades: Mary Adrian, *The Fireball Mystery*
REFERENCES


Horsey, Inez L. "The Influence of Styles, Text Content, Sex, and Grade Level on First, Second, and Third Grade Children's Preferences for Artistic Style." 1979, Eric Document #208-949.


