Characteristics of print in books for preschool children

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Children begin to learn about the characteristics of print well before formal literacy instruction begins. Reading to children can expose them to print and help them learn about its characteristics. This may be especially true if the print is visually salient, for studies suggest that prereaders pay more attention to such print than to print that is visually less salient. To shed light on the characteristics of the print that US children see in books, especially those characteristics that may contribute to visual salience, we report a quantitative analysis of 73 books that were chosen to be representative of those seen by preschoolers. We found that print that is visually salient due to colour, variation and other features tends to be more common on the covers of books than in the interiors. It also tends to be more common in recently published books than in older books. Even in recent books, however, the print is much less visually salient than the accompanying pictures. Many studies have examined the behaviour of adults and children during shared reading, but little research has examined the characteristics of books themselves. Our results provide quantitative information about this topic for one set of characteristics in books for young US children.

Keywords: Books; Book reading; Preschool children; Print concepts; Print awareness; Print salience.

Formal literacy instruction begins around six years of age in many countries. Before that time, however, children in the US and other modern societies are exposed to a good deal of print. Writing appears on such places as cereal boxes and signs; some toys, such as blocks, may even be formed in the shapes of letters. Experience with such materials gives children a chance to begin learning about the characteristics of written language, for example, that it is composed of units that repeat across words. Such knowledge, often referred to as print awareness or concepts about print, helps children to benefit from the formal literacy instruction that is provided at school (Storch & Whitehurst, 2002; Stuart, 1995). One avenue through which preschool children are exposed to print is being read to from books that are especially designed for children, or from looking at such books on their own. This is a common activity, with about half of the parents of 1- to 5-year-olds in a representative US sample reporting that a family member reads to the child at least once a day (US Census Bureau, 2010) and other studies reporting that preschool children look at books on their own several times a week (Scarborough, Dobrich, & Hager, 1991). In the present study, we examined the characteristics of the print in a large sample of

books that were chosen to be representative of those seen by middle class US 3- to 5-year-olds. We sought to provide a quantitative description of the print in these books and, by so doing, to shed light on what children may learn about print from exposure to books before they are able to read the print themselves.

One aspect of print that was of particular interest in this study was print that is visually salient due to its colour, size or other characteristics. It has been suggested that books that contain a good deal of such print are an important vehicle for early literacy learning because they support the development of print awareness (Cetin & Bay, 2015; Zucker, Justice, & Piasta, 2009). This idea is based on the finding that preschool children pay more attention to writing that is large or bold or embedded in pictures than writing that does not have these characteristics (Neumann, Acosta, & Neumann, 2014; Neumann, Summerfield, & Neumann, 2015; Smolkin, Conlon, & Yaden, 1988; Smolkin, Yaden, Brown, & Hofius, 1992). When reading to children, moreover, teachers of preschool children appear to talk more often about the printed letters and words if books are high in print salience than if they are low (Dynia, Justice, Pentimonti, & Piasta, 2013; Zucker et al., 2009).

If print-salient books are an important vehicle for promoting print awareness, are such books common among those that US preschoolers see? What specific types of visually salient print do books include? Given the potential value of print-salient books, it is important to examine these issues. In one of the few studies to have done so, Zucker et al. (2009) developed a measure of print salience that combines a number of characteristics, including variation in the style and colour of letters and embedding of written words in illustrations. Researchers reported one to two salient print features per page, on average, when they examined the print in 15 books for US preschool children (Dynia et al., 2013; Zucker et al., 2009). In addition, the studies found a good deal of variation across books. However, books were selected for these studies in part because they contained visually salient print. They may not be representative of the books to which young children are normally exposed. Also, because Zucker and colleagues combined a number of attributes into their measure of print salience, studies using this measure do not provide information about the specific kinds of visually salient print that appears in books.

In the only other study, to our knowledge, to have examined these issues, Cetin and Bay (2015) examined the print in 100 books designed for US preschoolers. They found that most of the books contained several instances of visually salient print. Among the most common were print embedded in illustrations or speech balloons and changes in the orientation, colour or size of letters. When Cetin and Bay compared the US books to a sample of 100 books for preschoolers in Turkey, they found that the US books included more examples of visually salient print. A weakness of the Cetin and Bay study is that the books were randomly chosen from libraries, bookshops and preschool classrooms, meaning that the selected books were not necessarily the ones that children see most often.

The present study was designed to examine a variety of features of the print in books for US preschool children, especially features that are thought to contribute to visual salience, and to compare the print to the pictures on several dimensions. We selected a sample of books that, as judged by parents, teachers and children's librarians, are popular among middle-class US 3- to 5-year-olds. Going beyond the previous studies, we examined both print on the covers of books and print on the interior pages. We hypothesised that, because covers of books are designed in part to attract attention, the print on covers may be larger, more colourful and more varied than the print on interior pages. Such a result might be taken to suggest that parents and teachers would do well to point out and discuss the writing on book covers when sharing books with children. We also considered possible differences across the books as a function of year of publication. For example, is print that is embedded in illustrations more common in recent books than in older books?

Newer technology makes such layouts easier and more inexpensive than in the past, and so we suspected that such things as embedded print and coloured print would be more common in recent books than in older ones. In what follows, we describe the features that we coded and our reasons for examining each one.

Print colour. Children prefer bright colours over black (e.g., Malter, 1948), and coloured print has been considered visually salient (Cetin & Bay, 2015; Zucker et al., 2009). We coded whether words were printed all in black or whether they included coloured letters.

Background colour. Although the background on which a word is printed has not been considered in previous studies of print salience, children might find writing on a coloured background to be more attractive than writing on a white background.

Font and letter style. We examined whether letters were in an upright font of the kind typically used in books for adults (e.g., ‹K›, ‹K›) or whether they were in an atypical style, such as cursive, bold or a decorative font. The latter styles have been described as visually salient (Cetin & Bay, 2015), and studies suggest that they draw preschoolers' attention (Neumann et al., 2014). We also coded whether the letters of the randomly chosen word were in a serif font (e.g., ‹k›) or a font without serifs (e.g., ‹k›). Although this is not an aspect of print salience per se, it is of interest given that teachers generally consider fonts without serifs to be easier for children than serif fonts (Walker & Reynolds, 2003), perhaps in part because the former look simpler and are more similar to the block printing that children produce. Also, Walker and Reynolds suggested that fonts without serifs are more common in recent books than in older books.

Letter case. Upper-case letters are more visually distinctive and often larger than lower-case ones, and use of upper-case letters in books has been considered to increase print salience (Zucker et al., 2009). We determined how often words were written in all upper-case letters and how often they had other patterns, including all lower-case letters or an initial upper-case letter followed by all lower-case ones.

Spatial arrangement. Words in which the letters have an arrangement other than the standard horizontal have been considered to be high in salience (Cetin & Bay, 2015; Zucker et al., 2009). We examined the frequency with which alternative arrangements were used.

Embedding. Studies suggest that children look more at print when it is embedded in illustrations or speech bubbles and that, when being read to, they make more comments on such print (Cetin & Bay, 2015; Neumann et al., 2014; Smolkin et al., 1988; Zucker et al., 2009). We coded the books in our study for this feature.

Size of print. Studies suggest that prereaders are more likely to look at print that is larger than print that is smaller (Neumann et al., 2014). We analysed print size by measuring the height of the letters.

Variation in print features. Variation in print features, such as variation in colour across the words on a page, has been considered an important aspect of print salience (Cetin & Bay, 2015; Zucker et al., 2009). Studies suggest that such variation is associated with increased talk about print by preschool teachers (Dynia et al., 2013). Whereas previous studies have lumped together variation in different features, we distinguished variation in print colour, background colour, letter style, font size and spatial arrangement. We also distinguished variation within words and variation across words. If variation is more common across words than within words, this could suggest that words have a typographical uniformity that might help children learn that they function as units.

Colour of print as compared to pictures. Previous studies have assessed the print salience of books in terms of characteristics of the print itself, but it is also informative to compare the print to the pictures. We coded pages containing print for whether the print was all black or whether it included some colour, and we did the same for pictures. By comparing the results for print and pictures, we could determine whether colour was more common in pictures

than in print, and whether this differed for book covers and interiors, and for newer books and older books.

Amount of print and amount of print as compared to pictures. As another way of comparing print and pictures, we compared the number of pages containing print to the number of pages containing pictures. For pages that contained both, we also compared the area devoted to print and the area devoted to pictures. This comparison is of interest given that prereaders spend more time looking at printed words if they are larger than the surrounding pictures than if they are smaller (Neumann et al., 2015). A final measure of amount of print was the number of words on each page.

Method

Book selection

To obtain a sample of books that would be representative of those commonly seen by US preschoolers, we asked the parents of nine children ranging in age from three years and five months to five years and four months to get their children to pick their three favourite books. These children were from monolingual families in two US states, Maryland and Missouri, and they were reported to be developing normally. We also asked three children's librarians who worked at public libraries in some of the same communities to recommend five books each that were popular among 3- to 5-year-olds. In addition, we solicited book recommendations from 10 preschool teachers in some of the same communities. Each teacher selected five books that, in her experience, were popular among children aged 3–5 years. The parents, teachers and librarians who provided the book recommendations were predominantly White and from middle-class backgrounds. Some books were recommended by different sources, in some cases as many as four separate times. In all, 73 different books were analysed for the study (see the Appendix for a list). Although we gave respondents no specific directions about what type of book to choose, almost all the books were storybooks (the one exception was an alphabet book).

Coding

We analysed the front cover of each book and each page of text. In those few cases in which a book had more than 25 interior pages, we randomly chose 25 pages for analysis. In all, 1851 pages were analysed. The sections that follow describe how we coded each variable.

Print colour. For each page that contained print, we chose one word by counting the number of words on the page and using a computer programme to pick one number at random. We determined whether all of the letters of the randomly chosen word were black.

Background colour. We coded whether all of the letters of the randomly chosen words appeared on a white background.

Font and letter style. We examined whether the randomly chosen word included any letters in an atypical style, such as cursive, bold, handwriting or a decorative font. We also coded whether the letters of the word had serifs (e.g., ‹k›) or not (e.g., ‹k›). When the first word that was chosen was not printed in letters of the Latin alphabet, which occurred 0.2% of the time (for Egyptian hieroglyphs), we randomly chose a different word from the same page for this analysis.

Letter case. Using the randomly chosen word that was printed in letters of the Latin alphabet, we determined whether it was written in all lower-case letters, with an initial upper-case letter, with all upper-case letters, or with some other pattern.

Spatial arrangement. We coded whether the letters in the randomly chosen word were arranged horizontally or whether they had some other arrangement. Words that contained a single letter were excluded from this analysis.

Embedding. If the randomly chosen word was printed in a picture or a speech bubble, it was coded as an instance of embedded print.

Size of print. This was the height of the tallest letter in the randomly chosen word.

Within-word variation. A word with print colour variation was one in which all the letters were not the same colour. Background colour variation was coded if all of the letters were not on the same colour background. Within-word variation in letter style and font size was scored if all of the letters were judged to be not of the same style (e.g., ‹At›) or font size (‹At›). Variation in spatial arrangement was scored if, for example, the first two letters in a word were printed along a horizontal line and the third letter was printed underneath the second. Cases in which the randomly chosen word had a single letter were omitted when examining variation in print colour, background colour, style and font size because no variation is possible in these cases. For the same reason, cases in which the randomly chosen word had one or two letters were omitted when examining variation in spatial arrangement.

Between-word variation. For each page that included more than one printed word, we determined whether there was any variation among the words in print colour, background colour, letter style, spatial arrangement and font size.

Colour of print as compared to pictures. We coded each page containing print for whether the print was all black or whether it included colour. Each page containing pictures was likewise scored for whether the pictures were all black or whether they included colour.

Amount of print and amount of print as compared to pictures. We coded each page for whether it contained any print and whether it contained any pictures. For pages that included both, we determined whether the total area covered by print was larger or smaller than the area covered by pictures. We also counted the number of words on each page.

Two judges who independently scored approximately 6% of the data agreed on categorical coding decisions 95% of the time. The judges' measurements correlated .95 and .99 for the continuous variables of print height and number of words, respectively.

Results

In the sections that follow, we present the results for each characteristic. Given our interest in possible variations as a function of cover versus interior and year of publication, we

Table 1.
Proportion of words on interior pages and covers with various characteristics

Characteristic	Interior		Cover	
	Older	Newer	Older	Newer
Black print	.96	.83	.58	.26
White background	.81	.54	.42	.23
Atypical letter style	.11	.27	.45	.51
Serif font	.89	.70	.50	.51
All lowercase letters	.80	.69	.08	.11
Horizontal	.96	.90	.79	.76
Embedded in picture or speech bubble	.07	.17	.21	.20

conducted multilevel analyses using book as a random factor and location (cover versus interior) and original year of publication as fixed factors. Year of publication had a moderate degree of negative skew, so it was reflected and square root transformed prior to analysis. For binary dependent variables, we used a logit link function. For most of the analyses, we first built a model with the main effects of location and year of publication. In a second model, the interaction between the two factors was added. We used a log likelihood test to determine whether the second model accounted for significantly more variance than the first model. If so, we report the results from the second and more complex model. If not, we interpret the results from the simpler model. When we conducted a different type of analysis, as we did for some variables, we describe the procedure in the relevant section.

Print colour. Table 1 shows the proportion of words in which all of the letters were black as a function of whether the word was on the cover or an interior page and whether the book was originally published before 1992, the median year for the books in the study, or in 1992 or after. Black print was less common for words on the covers of books (42%) than for words in the interiors (90%). Also, black print was less common in newer books than in older ones. Confirming these impressions, we found significant effects for location ($p < .001$) and year of publication ($p = .002$).

Background colour. As Table 1 shows, print was less likely to appear on a white background on the covers of books than in the interiors. White backgrounds were also less common in newer books than in older ones. Differences as a function of year of publication were larger for words in the interiors of books than for words on the covers. In line with these impressions, statistical analyses showed significant main effects of location ($p < .001$) and publication year ($p = .003$) and also a significant interaction ($p = .006$).

Font and letter style. As Table 1 shows, atypical print styles such as cursive, italics, handwriting and decorative fonts were less common in the interior pages of books (18%) than on the covers (48%). The effect of location was statistically significant ($p < .001$), and there were no other significant effects.

Table 1 shows how often the letters of the randomly chosen word were in a serif font as opposed to one without serifs. On interior pages, serif fonts were less common in newer books than in older books. Words on covers were less likely to have serif fonts than words on interior pages, and year of publication did not have an effect for words on covers. Confirming these impressions, statistical analyses revealed main effects of location ($p < .001$) and publication year ($p = .031$) and a significant interaction ($p = .009$).

Letter case. Table 1 provides information about the cases of the letters in the randomly chosen words. In the interiors of books, about three quarters of the words had all lower-case letters, as in <cat>. This pattern was much less common on book covers (10%), yielding a significant effect of location ($p < .001$). (For this variable, models that included year of publication did not converge and so we could not examine its effects statistically.) Of words that were not in all lower-case letters, 53% of those on covers were in all upper case. The figure was 38% for words on interior pages. The effect of location was statistically significant ($p < .001$), and there were no significant effects involving year of publication. Words on interior pages that did not have the all-lower-case pattern tended to have the first letter in upper case and the remaining letters in lower case, the conventional pattern for sentence-initial words and proper nouns.

Spatial arrangement. Table 1 shows the proportion of words in which all of the letters were arranged horizontally. This arrangement was significantly more common in the interiors of books (93%) than on the covers (78%; $p < .001$). There was a small but significant effect of year of publication, such that non-horizontal arrangements were more common in newer books than in older ones ($p = .046$).

Embedded print. The last line of data in Table 1 shows how often the randomly chosen word was embedded in a picture or a speech bubble. This was more likely to occur on the covers of books (21%) than in the interiors (11%, $p = .008$). In addition, embedding was more common in recently published books than in older ones ($p = .018$).

Size of print. The mean height of the tallest letter in the randomly chosen word was 0.65 cm for words on interior pages of books and 1.43 cm for words on covers. This difference was statistically significant ($p < .001$; height was log transformed prior to analysis in order to make its distribution more normal), and there were no significant effects involving year of publication.

Within-word variation. The results in Table 2 show that within-word variation in print colour, background colour, font size and spatial arrangement occurred in just a small proportion of the words. Variation within a word in letter style was virtually nonexistent, and this variable was therefore not subjected to statistical analysis. For variation in background colour, font size and spatial arrangement, there were significant main effects for year of publication ($p = .006$, $p = .043$ and $p = .044$, respectively). The trend was for more within-word variation in recent books than in older ones. The analyses of background colour and font size showed significant main effects of location, with more variation on covers than interiors ($p = .005$ and $p < .001$, respectively). For background colour and spatial arrangement, we found significant interactions between year of publication and location ($p = .035$ and $p = .044$, respectively), such that changes across year of publication differed in magnitude for covers and interiors.

Between-word variation. Table 3 provides information about how often the words on a page varied in print colour, background colour, letter style, spatial arrangement and font size. Between-word variation was fairly common for each characteristic, more common

Table 2.
Proportion of words on interior pages and covers showing variation across letters in various characteristics

Characteristic	Interior		Cover	
	Older	Newer	Older	Newer
Print colour	.01	.01	.00	.09
Background colour	.01	.12	.08	.18
Letter style	.00	.00	.00	.00
Spatial arrangement	.00	.04	.10	.17
Font size	.00	.01	.00	.09

Table 3.
Proportion of interior and cover pages showing variation across words in various characteristics

Characteristic	Interior		Cover	
	Older	Newer	Older	Newer
Print colour	.10	.17	.71	.86
Background colour	.14	.43	.64	.63
Letter style	.14	.32	.71	.80
Spatial arrangement	.12	.24	.42	.43
Font size	.20	.38	.92	.97

than within-word variation. In general, variation across the words on a page was more common on the covers of books than in the interiors and more common in recent books than in older ones. Confirming these impressions, we found a significant main effect of location for each type of variation ($p < .001$ for all). For background colour, letter style, spatial arrangement and font size, there was also a main effect of year of publication ($p < .001$ for background colour and font size, $p = .002$ for letter style, $p = .003$ for spatial arrangement). In the case of background colour and spatial arrangement, year of publication and location interacted ($p < .001$ for background colour, $p = .006$ for spatial arrangement) such that changes as a function of year of publication were observed primarily for words in the interiors of books.

Colour of print as compared to pictures. Table 4 shows the data on colour use. We analysed these data using the factors of print versus picture, location in book and year of publication. A model that included all the two- and three-way interactions did not converge, but a model that included the two-way interactions was a significantly better fit than a model that included just the main effects. We thus present the results for the model with the two-way interactions. Print was more likely to be black than pictures ($p < .001$), and black was more common in the interiors of books than on the covers ($p = .014$). In addition, older books had more black print and pictures than newer ones ($p < .001$). The significant interaction between picture versus print and location showed that the difference between pictures and print in use of colour was larger in the interiors of books than on the covers ($p = .012$). The difference between print and pictures in use of colour was also larger for older books than for newer books ($p = .035$). Finally, differences as a function of year of publication were larger for interior pages than for covers ($p = .015$).

Amount of print and amount of print as compared to pictures. The third and fourth lines of data in Table 4 show, respectively, the proportion of pages that included print and the proportion of pages that included pictures. All covers included both print and pictures. Interior pages were more likely to include pictures than print, and this was especially true in more recently published books. Confirming these impressions, an analysis using the factors of print versus picture and year of publication showed main effects of both variables and also an interaction ($p < .001$ for all). Location was not included in the analysis because of the lack of variability for covers.

On pages that contained both print and pictures, the area covered by print was almost always smaller than the area covered by pictures, as Table 4 shows. There were no significant effects of location or publication year.

The mean number of printed words per page was 19.3, and this did not vary as a function of cover versus interior or year of publication. (Number of words per page was log transformed prior to statistical analysis in order to make the distribution more normal.)

Table 4.
Proportion of pages with various characteristics

Characteristic	Interior		Cover	
	Older	Newer	Older	Newer
Print all black	.88	.71	.16	.09
Picture(s) all black	.11	.05	.03	.00
Print present	.81	.82	1.00	1.00
Picture(s) present	.91	.99	1.00	1.00
Print area smaller than picture area	.97	.93	.92	.94

Discussion

Reading books to children is a valued activity in the US and many other societies. Many days, preschool children spend some time being read to or looking at books on their own (Scarborough et al., 1991; US Census Bureau, 2010). Although preschool children spend substantially more time looking at the pictures in books than at the print, they sometimes look at the print (Evans & Saint-Aubin, 2005; Evans, Williamson, & Pursoo, 2008; Justice, Skibbe, & Canning, 2005) and, under favourable conditions, remember some of its characteristics (Apel, Wolter, & Masterson, 2006; Evans et al., 2008). Given that books are one source of input to children about what writing looks like and how it functions, the present study was designed to examine the characteristics of the print that US 3- to 5-year-olds see in books. We were particularly interested in the frequency and nature of visually salient print, such as print that is embedded in illustrations or in which the letters vary in colour. Such print appears to draw the attention of young children and of the adults who are reading to them (Dynia et al., 2013; Justice et al., 2005; Smolkin et al., 1988; Smolkin et al., 1992; Zucker et al., 2009). It has thus been proposed that print-salient books are an important vehicle for the development of print awareness in children (Cetin & Bay, 2015; Zucker et al., 2009).

Only a few previous studies have examined the characteristics of print in books for pre-school children (Cetin & Bay, 2015; Dynia et al., 2013; Zucker et al., 2009). We went beyond these studies, first, by comparing the visual salience of print on the covers of books to that in the interiors. We found that visually salient print was more likely to occur on the covers. This is probably because book covers are designed to draw attention. Studies of children's attention to print in books appear to have used interior pages only (Evans & Saint-Aubin, 2005; Evans et al., 2008; Justice et al., 2005), and research is needed to examine children's attention to the print on covers. Based on the idea that visually salient print is a good vehicle for early literacy learning, it might be suggested that parents and teachers pay special attention to the print on book covers and talk about it while reading to children.

Whereas the print salience measure introduced by Zucker et al. (2009) combines several features into a single measure of print salience, we examined individual features separately. In so doing, we found that typographical variation in such features as colour and font size was quite uncommon within the letters of individual words and more common across the words on a page. This finding suggests that the design of books makes words salient. The spaces that separate words in print are rather small, and some preschool children pay little attention to them (Ganapole, 1987). The fact that the letters in the words are generally similar in such things as colour and size, whereas these properties sometimes vary across words, could help young children to learn about one important characteristic of writing: that letters are grouped into units. This idea, sometimes called concept of word, is thought to be important for early literacy (Morris, 1993).

Although previous studies (e.g., Zucker et al., 2009) suggested that books for US pre-schoolers differ substantially from one another in their use of visually salient print, the results did not shed light on possible factors associated with this variation. Some of the differences, our results suggest, reflect changes in publication practices over time. For example, there was more variation across words on a page in font size and letter style in recently published books than in older books. Also, embedding of print in illustrations was more common in recent books. These differences, we suspect, reflect the fact that it is easier and cheaper to produce books with visually salient print than in the past. Also, the frequent use of such print on the internet may encourage its use in books.

Even though the print in recent books is more visually salient in some respects than the print in older books, the print continues to lose out to the pictures in visual salience. Thus,

pictures take up more space than print and appear on more pages. They are also more likely to be in colour. Of course, pictures are also more meaningful than written words to children who do not know how to read. Prereaders thus have many reasons to prefer the pictures. Indeed, they spend more time looking at the pictures in books than at the print and they remember the pictures better (e.g., Evans et al., 2008). A style of reading in which adults point to and comment on the print appears to cause children to look at the print more than they otherwise would, and this style of reading may promote the learning of print concepts (Gettinger & Stoiber, 2014; Justice & Ezell, 2000; Piasta & Justice, 2012; but see Sim, Berthelsen, Walker, Nicholson, & Fielding-Barnsley, 2014). However, the print in books must always compete with the more attractive pictures. Therefore, we believe that it is not realistic to rely solely on book reading to teach children about the characteristics of print. Activities that feature letters and words without accompanying pictures, such as those in which children watch adults write or try to write themselves, have an important role to play (e.g., Levin & Aram, 2012).

Caution is called for in increasing the visual salience of print in books as a way of encouraging young children to attend to and learn about it. Decorative styles of print can draw children's attention, for example, but the letters have some atypical characteristics. Similarly, printing letters in bright colours or laying them out in unconventional ways can give children misleading ideas about what writing normally looks like. Making print more colourful or decorative also makes it more similar to pictures. This could be a problem because one important aspect of early literacy development is learning about the differences between print and pictures in form and function. These differences are not always obvious to young children. For example, children sometimes point to the pictures in a book when asked where one should read (Ferreiro & Teberosky, 1982) or say that one 'draws' a word (Robins & Treiman, 2009). It has also been suggested that the more interesting and attractive a symbol is as an object, the more difficult it is for children to understand that it functions as a symbol, and there is some evidence for this view in the case of letters (Chiong & DeLoache, 2012). If so, then making printed words visually attractive may have some negative consequences.

Our data speak not only to the visual salience of print in books for children but also to the input that children get that can help them learn about the properties of print. The attempts of even very young children to write their names and other words often show some of the visual features typical of writing, such as use of a linear arrangement (see Treiman & Kessler, 2014, for a review). Similarly, US preschoolers who are asked to judge whether various displays are examples of writing tend to prefer certain types of displays, such as horizontal ones (Ganapole, 1987; Lavine, 1977; Treiman, Mulqueeny, & Kessler, 2015). Children's ideas about the appearance of writing must come in part from the writing to which they are exposed, among this being the writing in books. Studies of the characteristics of book print help to show what children may learn from exposure to it.

Reading books to preschool children can expose them to print and help them learn about its characteristics, but it does much more than this. Importantly, it exposes children to grammar and vocabulary that they might not otherwise encounter very often, boosting their linguistic skills and their eventual ability to comprehend what they read (e.g., Dickinson, Griffith, Golinkoff, & Hirsh-Pasek, 2012). It is in part for this reason that reading aloud to young children has been argued to be "*the single most important activity for developing the knowledge required for eventual success in reading*" (Anderson, Hiebert, Scott, & Wilkinson, 1985, p. 23). These characteristics of books for children, however, have been little studied (Van Kleeck, 2003). The present study is one of the first attempts to do this for one set of characteristics in books for US preschoolers—characteristics of the print—and it joins a small number of other studies that have explored other properties of books,

such as the nature of the vocabulary (e.g., Hayes & Ahrens, 1988). Further work is needed to explore these and other properties of books for children of different ages and from different social groups.

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Appendix

A Fish Out of Water; A Frog in the Bog; Abiyoyo; Alfie Gives a Hand; Amazing Grace; Are You My Mother?; Bear's Bargain; Brown Bear, Brown Bear, What Do You See?;But Not The Hippopotamus; Caps For Sale; CLICK, CLACK, MOO Cows That Type; Corduroy; Curious George; Curious George Goes to the Hospital; Curious George Rides a Bike; Doctor De Soto; Dora and the Rainbow Kite Festival; Dr. Seuss's ABC; Fancy Nancy; Ginger; Go Away, Big Green Monster; Go, Dog, Go!; Go, Train, Go!; Harry the Dirty Dog; Horton Hatches the Egg; How to Lose All Your Friends; I Ain't Gonna Paint No More!; I Have a Loose Tooth; I Love You All Day Long; I Love You, Blue Kangaroo!; I Love You, Stinky Face; If You Give a Moose a Muffin; If You Give a Mouse a

Cookie; If You Give a Pig a Pancake; If You're Happy and You Know It; Jumanji; Knuffle Bunny Too; Llama Llama Red Pajama; Mike Mulligan & His Steam Shovel; Mouse Count; Mr. Brown Can Moo! Can You?; No, David!; Owl Babies; Pete's A Pizza; Rooster Can't Cock-a-Doodle-Doo; Seven Blind Mice; Sheila Rae, the Brave
Sitting Ducks; Skippyjon Jones; Skippyjon Jones in Mummy Trouble; Snuggle Puppy! A Little Love Song; Spot Goes to the Beach; Stellaluna; The Big Hungry Bear; The Cat in The Hat; The Children's Book of Virtues; The Gingerbread Boy; The Great Fuzz Frenzy
The Hungry Thing; The Little Engine That Could; The Rainbow Fish; The Recess Queen; The Runaway Bunny; The Seals on the Bus; The Snowy Day; The Story of Ferdinand; The Very Hungry Caterpillar; There's a Hippo in My Bath!; There's a Wocket in my Pocket!; Time to Say Please; We're Going on a Bear Hunt; Where the Wild Things Are; White Rabbit's Color Book