GENDER IN TWENTIETH-CENTURY CHILDREN'S BOOKS

Patterns of Disparity in Titles and Central Characters

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Gender representations reproduce and legitimate gender systems. To examine this aspect of the gendered social order, we analyze the representation of males and females in the titles and central characters of 5,618 children's books published throughout the twentieth century in the United States. Compared to females, males are represented nearly twice as often in titles and 1.6 times as often as central characters. By no measure in any book series (i.e., Caldecott award winners, Little Golden Books, and books listed in the Children's Catalog) are females represented more frequently than males. We argue that these disparities are evidence of symbolic annihilation and have implications for children's understandings of gender. Nevertheless, important differences in the extent of the disparity are evident by type of character (i.e., child or adult, human or animal), book series, and time period. Specifically, representations of child central characters are the most equitable and animals the most inequitable: Little Golden Books contain the most unequal representations; and the 1930s-1960s—the period between waves of feminist activism—exhibits

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greater disparities than earlier and later periods. Examining multiple types of books across a long time period shows that change toward gender equality is uneven, nonlinear, and tied to patterns of feminist activism and backlash throughout the century.

Keywords: adolescence/children; culture; media/mass communications

Research on gender representation in children's literature has revealed persistent patterns of gender inequality, despite some signs of improvement since Weitzman et al.'s (1972) classic study more than 35 years ago. Recent studies continue to show a relative absence of women and girls in titles and as central characters (e.g., Clark, Lennon, and Morris 1993; Hamilton et al. 2006), findings that mirror those from other sources of children's media, including cartoons and coloring books (e.g., Fitzpatrick and McPherson 2010; Klein and Shifman 2009). Theoretically, this absence reflects a "symbolic annihilation" because it denies existence to women and girls by ignoring or underrepresenting them in cultural products (Tuchman 1978). As such, children's books reinforce, legitimate, and reproduce a patriarchal gender system.

Because children's literature provides valuable insights into popular culture, children's worlds, stratification, and socialization, gender representation in children's literature has been researched extensively. Yet most studies provide snapshots of a small set of books during a particular time period while making sweeping claims about change (or lack thereof) and generalizing to all other books. For instance, Weitzman et al. (1972, 1127) concentrated on a five-year period (1967-1971) but claimed that their findings were "applicable to the wide range of picture books." Children's literature, however, has been shown to be highly sensitive to social forces, and the industry itself is far from monolithic in the types of books produced and messages conveyed (Pescosolido, Grauerholz, and Milkie 1997). While examining particular books during limited time periods may reveal important insights about these periods and books, we know little about representation of males and females in the broad range of books available to children throughout the twentieth century.

This study moves beyond ahistorical assumptions and methodological limitations that defined previous research by expanding coverage to 5,618 books published throughout the twentieth century in the United States. We focus upon the most obvious markers of inequality—disparity in the representation of male and female characters in titles and central roles—in both award-winning and non-award-winning books to explore how these
overt manifestations of bias vary across book types and over time. We also investigate how disparity in central characters varies by age (child or adult) and species (human or animal). We provide a historical examination of symbolic annihilation by tying representation in books to patterns of feminist activism and backlash throughout the century. Differences between the presence of males and females in books have implications for the (unequal) ways gender is constructed. The disproportionate numbers of males in central roles may encourage children to accept the invisibility of women and girls and to believe they are less important than men and boys, thereby reinforcing the gender system.

Children’s Understandings of Gender: Schemas, Reader Response, and Symbolic Annihilation

No medium has been more extensively studied than children’s literature. This is no doubt due, in part, to the cultural importance of children’s books as a powerful means through which children learn their cultural heritage (Bettelheim 1977). Children’s books provide messages about right and wrong, the beautiful and the hideous, what is attainable and what is out of bounds—in sum, a society’s ideals and directions. Simply put, children’s books are a celebration, reaffirmation, and dominant blueprint of shared cultural values, meanings, and expectations.

Childhood is central to the development of gender identity and schemas. By preschool, children have learned to categorize themselves and others into one of two gender identity categories, and parents, teachers, and peers behave toward children based on these categories. The development of a gender identity and understandings of the expectations associated with it continue throughout childhood. Along with parents, teachers, and peers, books contribute to how children understand what is expected of women and men and shape how they think of their place in the social structure: Through stories, “children learn to constitute them selves [sic] as bipolar males or females with the appropriate patterns of power and desire” (Davies 2003, 49). Books are one piece of a socialization and identity formation process that is colored by children’s prior understandings of gender, or gender schemas. Because schemas are broad cognitive structures that organize and guide perception, they are often reinforced and difficult to change. It takes consistent effort to combat dominant cultural messages (Bem 1983), including those sent by the majority of books.

The extensive body of research (often referred to as “reader response”) examining the role of the reader in constructing meanings of literature
(e.g., Applebee 1978; Cullingford 1998) comes to a similar conclusion. We interpret stories through the filter of our prior knowledge about other stories and everyday experiences; in other words, schemas shape our interpretations. Reading egalitarian books to children over a sustained period of time shapes children’s gender attitudes and beliefs (e.g., Barclay 1974; Trepanier-Street and Romatowski 1999). However, one book is unlikely to drastically change a child’s gender schema.

The effects of gender schemas can be seen in children’s preferences for male characters. Boys and, to a lesser extent, girls prefer stories about boys and men (e.g., Bleakley, Westerberg, and Hopkins 1988; Connor and Serbin 1978). This research suggests that children see girls and women as less important and interesting. Even seeming exceptions to the pattern of male preference support the underlying premise: When boys identify with a girl as a central character, they redefine her as a secondary character (Segel 1986) and they identify male secondary characters as central characters when retelling stories (Davies 2003). Patterns of gender representation in children’s books, therefore, work with children’s existing schemas and beliefs about their own gender identity. A consistently unequal pattern of males and females in children’s books thus contributes to and reinforces children’s gender schemas and identities.

While representation in the media conveys social existence, exclusion (or underrepresentation) signifies nonexistence or “symbolic annihilation” (Tuchman 1978). Not showing a particular group or showing them less frequently than their proportion in the population conveys that the group is not socially valued. This phenomenon has been documented in a range of outlets—from television (Tuchman 1978) to introductory sociology textbooks (Ferree and Hall 1990) to animated cartoons (Klein and Shiffman 2009). Yet, research on “symbolic annihilation” has neglected children’s books and failed to tie representations to broader historical changes.

Historical Change: Gender throughout the Twentieth Century

Inequitable gender representations may have diminished over time in the United States, corresponding with women gaining rights throughout the century (e.g., voting and reproductive rights) and entrance into the public sphere via the workplace, politics, and media. However, it seems more likely that there will be periods of greater disparity and periods of greater parity, corresponding with upsurges in feminist activism and backlash against progressive gender reforms. For instance, Cancian and Ross (1981) identified a curvilinear pattern in newspapers and magazines’ coverage of women, finding that coverage peaked during the first wave of
feminist activism (1908-1920) and dipped until the second wave was well underway in 1970, when it began to rise again.

Thus, we have reason to believe that representations during midcentury—after the 19th Amendment gave women the right to vote but before the second-wave women's movement—may differ from other parts of the century. Historians have identified the 1930s as a time of backlash against the changes in gender expectations and sexual freedom of the 1920s (Cott 1987; Scharf 1980). While resistance to these changes existed in the first two decades of the century (Kimmel 1987), the tide shifted with the Great Depression. Women were scorned for taking "male jobs" (Evans 1997; Scharf 1980), the increase in the number of women in the professions "came to a halt" (Scharf 1980, 85), and the media asked "Is Feminism Dead?" in 1935 (Scharf 1980, 110). Even when women's employment skyrocketed during WWII, traditional notions of gender persisted through the valuation of the "domestic ideology" (Evans 1997; Friedan 1963; Rupp and Taylor 1987) and women were "criticized for failing to raise their sons properly" (Evans 1997, 234). This gender traditionalism and antifeminism persisted into the 1960s, although feminist challenges to gender expectations began to swell again with President Kennedy's Commission on the Status of Women, the Equal Pay Act, the publication of The Feminine Mystique, and the founding of the National Organization for Women (Rupp and Taylor 1987). The cumulative effects of these events were apparent in the 1970s as feminism rapidly expanded in a second wave of activism (Cancian and Ross 1981; Evans 1997). Although there was some resistance to feminism during the 1980s (Evans 1997; Faludi 1991), this latter part of the century saw a more consistent presence of activism; by the mid-1990s, feminist solidarity was growing among younger women (Evans 1997) identified as feminism's "third wave."

Based on these patterns of feminist activism and backlash, we expect representation of women and girls to be closer to parity during activist periods (1900-1929 and 1970-2000) and more absent during greater gender traditionalism (1930-1969). We link the theoretical concept of symbolic annihilation to gender representation throughout the century.

Gender Representation in Children's Literature

As a whole, existing research on children's books largely aligns with concerns about symbolic annihilation by suggesting that the underlying message conveyed to children is that women and girls occupy a less central role in society than do men or boys. Weitzman et al.'s (1972) groundbreaking study of children's books showed that females were greatly
underrepresented in titles and central roles. In 1967-1971, only one Caldecott honoree—the major U.S. award given for children’s book illustrations—featured a female in the title while eight highlighted males. Since Weitzman et al. (1972), most studies have similarly concluded that women and girls are underrepresented (e.g., Clark, Lennon, and Morris 1993; Hamilton et al. 2006; Kortenhous and Demarest 1993; McDonald 2001; Tepper and Cassidy 1999).¹

Evidence of the move toward parity, however, is equivocal. Some studies document improved visibility of women and girls over time (Oskamp, Kaufman, and Wolterbeek 1996; Williams et al. 1987). However, Clark, Lennon, and Morris (1993) found that the improvements noted in some of the early follow-up studies did not persist into the late 1980s. Other studies have documented more complex changes. For example, in research on Caldecott and other prize-winning books, Clark and colleagues found more female characters in the 1980s and 1990s than the 1970s and 2000s (Clark et al. 2007) and in the 1930s and 1950s than the 1940s and 1960s (Clark et al. 2003). Although not central to their argument, Weitzman et al. (1972) reported the ratio of males: females in titles as somewhat more balanced (8:3) across the entire period (since 1938) than for the five-year period studied (8:1 in 1967-1971). Drawing on 2,216 books listed in the Children’s Catalog 1900-1984, Grauerholz and Pescosolido (1989) found that both the early and later decades showed the most equality.

Methodological issues in existing studies contribute to the lack of consistent conclusions. Most studies focus on relatively narrow time periods or only on books published since Weitzman et al.’s (1972) study (e.g., Gooden and Gooden 2001; Oskamp, Kaufman, and Wolterbeek 1996; Tepper and Cassidy 1999). The tendency to focus only on Caldecott or other award-winning books also obscures our general understanding of gender in children’s literature. While award-winning books represent an important segment for a variety of reasons (e.g., they serve as models for other books, they are “gatekeepers” [Weitzman et al. 1972]), they are not necessarily the most widely read books (Tepper and Cassidy 1999), nor are they likely to be representative of children’s books. Yet, very few studies directly compare Caldecott winners to other books, and those that do produce mixed results (e.g., Hamilton et al. 2006; Kortenhous and Demarest 1993; Tepper and Cassidy 1999). While not comprehensive, previous studies suggest that characters’ species and age produce variability in representation, with representations of animals being particularly unequal and children more equal (Gooden and Gooden 2001; Hamilton et al. 2006; Weitzman et al. 1972).
in sum, despite a large body of research on representation of males and females in children’s books, serious gaps persist. Although some studies make direct comparisons to previous research, including Weitzman et al.'s (1972) “classic,” this approach renders intercoder reliability across studies problematic and makes temporal comparisons subject to error. Poor sampling techniques (including reliance upon convenience samples: e.g., McDonald 2001); a focus on subtle types of discrimination that are difficult to quantify (e.g., emotional language or role behaviors; McDonald 2001; Oskamp, Kaufman, and Wolterbeek 1996; 'Tepper and Cassidy 1999); a lack of specificity regarding unit of analysis, reliability, and operationalization; and a lack of testing for statistical significance continue to plague this line of research. Here, we correct for these concerns to provide a comprehensive picture of inequality embedded in the literature produced for children throughout the past century. Our historical examination of the symbolic annihilation of women and girls in children’s books provides insight into the social reproduction of gender inequality and the maintenance of the gender system.

METHOD

Data

Our data include information on titles and central characters in 5,618 books published throughout the twentieth century. We collected information from the full series of three sources: Caldecott award-winning books, 1938-2000 (N = 263); Little Golden Books, 1942-1993 (N = 1,023); and the Children’s Catalog, 1900-2000 (N = 4,485). This data set provides a robust view of 101 years of U.S. children’s literature that attends to award winners, popular books, and the librarian’s standard reference.

The Caldecott Medal is awarded annually by the Association for Library Service to Children (a division of the American Library Association) to the artist of the “most distinguished American Picture Book for Children published in the United States during the preceding year” (ALA.org 2011). The Association also recognizes Honor books (i.e., runners-up). We coded all 263 Medal and Honor books from 1938 (the inception of the award) to 2000. These books represent an elite group whose influence on authors, the industry, teachers, and parents is widespread. Books bestowed the Caldecott award ensure high sales for publishers and shape industry standards (Weitzman et al. 1972).
The Little Golden Books are a widely popular and relatively inexpensive book series. More than 90 percent of Americans recognize the Golden Book brand (Marcus 2007). By 1986, the one billionth book in the series had been published; that number reached two billion by 2002 (Marcus 2007). Although some Caldecott medalists have illustrated Little Golden Books, this series is markedly different from Caldecotts in print quality and cost; indeed, its success is due to the books' affordability (e.g., the average price in the 1940s was 25 cents; today it is $2.99) and marketing savvy (e.g., they were sold not only in bookstores but grocery and department stores; Marcus 2007). We coded all 1,023 Little Golden Books published from 1942 (the inception of the series) to 1993. We coded the standard Little Golden Books, which have golden binding on the book's cover, are 6 ½ by 8 inches, and have 24 pages. We coded re-releases when books were changed, including the story or length. We did not code other (rarely published) Golden books, such as Golden Story Books, Giant Little Golden Books, and Tiny Books (Marcus 2007). After 1993, alterations in ownership, production, and marketing strategies of Little Golden Books (see Marcus 2007) made systematic book selection impossible because we were unable to verify a list of the population of Little Golden Books published after 1993.

The Children's Catalog, a compilation of book titles and summaries originally published in 1909 and now in its 19th edition, spans the twentieth century and is one of the most extensive listings of books available. It is designed for librarians and school media specialists to use in developing and maintaining collections (i.e., in making decisions about buying, rebinding, replacing, and discarding books), verifying bibliographic and award information, identifying books appropriate for particular curricula, and assisting readers in locating books on specific topics (Price 2006). For consistency with other series used in this study, we coded all "easy books," a designation used for the youngest readers, children from preschool to third grade (Price 2006). The 153 Caldecott award winners listed in the "easy" section of the Catalog are included only once in our full set of books; Little Golden Books do not appear in the Catalog. Each listing in the Children's Catalog provided the information needed for this study: title, date, and a brief description of the story. By design, descriptions detail "the book's content" (Price 2006, xi). For example, the description of Syd Hoff's Barkley (1975), reads, in part:

Barkley, an aging circus dog, has had a long career doing tricks—until one day the four dogs on his back become a painful load. His owner retires him
and Barkley walks away from the circus. But he is missed and reinstated, because he is needed to teach tricks to young dogs.

This excerpt exemplifies how each description allowed us to obtain the information needed for our study (e.g., Barkley is the central character in the book and is a male animal). To assess the validity of the title and central character information gathered from the Children's Catalog, we randomly selected 50 books listed in the Catalog. We found 96.7 percent coding agreement, supporting the utility of using the descriptions.

Coding and Variables

Multiple coders participated in training sessions to use a standard form, developed by the team, to record information on all books receiving a Caldecott award since the award’s inception; all “easy books” listed in the Children's Catalog, published 1900-2000; and all Little Golden Books published through 1993. Intercoater reliability was high. There was 97.5 percent coding agreement for a subset (N = 36) of Caldecott books and 99.4 percent agreement for a subset (N = 850) from the Children’s Catalog. These exceptionally high scores undoubtedly reflect our focus on only the most observable and blatant forms of disparity between males and females: presence as central characters and in the titles.

We coded each title as containing a masculine name or pronoun, a feminine name or pronoun, both, neither, or nonidentifiable (e.g., Duke Ellington: The Piano Prince and his Orchestra [1999] was coded “male”; Jinny: The Story of a Filly [1934] was coded “female”). In ambiguous cases, we used information (when present) from the story or description to determine whether the title character was male or female (e.g., Barkley [1975]). Unless otherwise specified, the numbers of “male” and “female” titles include those coded as “both” (e.g., Mary and the Policeman [1929] was coded “male” and “female”).

We determined central characters through the storyline or, in the case of the Children’s Catalog, descriptions of each book. We coded them as male, female, neither, or nonidentifiable and indicated whether they were human, animal, or other (e.g., inanimate object), and if human, whether they were adults or children. We excluded “objects” from this analysis because of the small numbers that are male or female (i.e., 0.6 percent [N = 25] of the Children’s Catalog books have central characters who are male objects; 0.4 percent [N = 19] female objects). Thus, our main variables are: males in title, females in title, male central characters (CC), female CC, male
human CC, female human CC, male adult CC, female adult CC, male child CC, female child CC, male animal CC, and female animal CC. We also coded publication dates.

Analysis

To provide an overview, we present descriptive statistics (means, modes, and ranges) and ratios of males to females for each variable (e.g., the ratio of boy compared to girl CC) for the full set of books and by book type, along with indicators of statistical significance. To examine historical trends, we use straight time series analysis.

We determine statistical significance using Pearson's chi-square test, Fisher's exact test, and Wilcoxon sign test. Comparing the presence of males and females in titles or as central characters violates the assumption of independence because some books have both males and females in the title or as central characters (thus, these two values [e.g., males in title and females in title] are not mutually exclusive). Therefore, we use the Wilcoxon sign test when making these comparisons, which is appropriate for dependent samples. When comparing book series, we restrict our analysis to comparisons of books that have only males or only females in titles or as central characters (i.e., we do not include books that have both a male and female in the same category, such as title, in these comparisons) and use Pearson's chi-square test; where we compare numbers smaller than five (i.e., two Caldecott books with only female animal CC to 42 with only male animals), we use Fisher's exact test. Because 153 books appeared in the "easy" section of the Children's Catalog that also received a Caldecott award, the issue of independence limits our ability to statistically compare these two series. As a result, we do not make this specific comparison. Finally, because our data represent the population of books, and inferential statistics are inappropriate for comparing nonrandom samples to the larger body of children's books, such comparisons should be made with caution. Nevertheless, we include them because we believe that the group differences that these tests identify are valuable in furthering our understanding of gender disparities.

We also use straight time series analysis (Ostrom 1990) to discover whether a particular historical era shows a substantial departure from gender parity in children's books. To obtain the outcome variable for each analysis, we convert the ratio of males to females for each variable into a proportion and calculate each proportion's distance from 1. Hence, our dependent variables gauge the distance from parity.

For the time series analysis, our historical and theoretical emphasis is on an important midcentury era. To capture historical parity patterns, we
create a dummy variable that spans 1930 to 1969. Years in this range are coded 1 and 0 otherwise. We also include a linear-time-trend measure. The autocorrelation function (ACF) and partial autocorrelation function (PACF) suggest a first-order autoregressive process. The Breusch-Godfrey LM test did not suggest higher order autocorrelation (Enders 2004). Hence, we use a Cochrane-Orcutt time series regression model with semi-robust standard errors. The Cochrane-Orcutt transformation corrects for first-order serial correlation across our data points. Because of our theoretical emphasis on parity shifts in particular eras, we did not include additional regressors aside from the linear-trend term. Nevertheless, we examined model sensitivity by running both Newey-West and Hildreth-Lu models (Gujarati and Porter 2009; Newey and West 1987). We also ran a series of models using proportion female representation as the dependent variable. All of these approaches yielded substantially similar results (details on request). Here, we present estimates from Cochrane-Orcutt time series regression.

FINDINGS

Twentieth-Century Representations

We first provide, in Table 1, general yearly trends of the percentage of books featuring males and females in titles, as well as among central characters. Here, the unit of analysis is year rather than book. With all book series combined, there are 101 cases (representing 5,618 books across 101 years).

Because we are interested primarily in (dis)parity between representations of male and female characters, we focus on the presence of males or females. However, it is noteworthy that male or female characters are not present in many titles: 55 to 57 percent of Caldecott award winners and Children’s Catalog; 43 percent in Little Golden Books. There were also some instances in which it was not possible to determine whether a character was male or female: 4 percent of Goldens, 8 percent of Caldecotts, and 19 percent of Catalogs had at least one such character.²

The descriptive statistics in Table 1 point to three interesting patterns in representations. First, there is a clear disparity across all measures: Males are represented more frequently than females in titles and as central characters. For instance, on average, 36.5 percent of books each year include a male in the title compared to 17.5 percent that include a female. By no measure are females present more frequently than males. In fact, the mode for males in titles is 33, meaning that the most common distribution is that

<table>
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<tr>
<th></th>
<th>Full Set, N = 101</th>
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<th>Caldecotts, N = 63</th>
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<td>Mode</td>
<td>Range</td>
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<tr>
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<tr>
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<tr>
<td>Males</td>
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<td>50 (6)</td>
<td>0-100</td>
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<tr>
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<td>30.8</td>
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<td>27.8</td>
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<tr>
<td>Female humans</td>
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NOTE: Values presented refer to percentage of books per year. Frequencies are in parentheses.
one-third of the books published that year include a male in the title, whereas the mode for females is 0, meaning that the most common distribution is that no book titles include females. Similarly, the mode for male central characters (overall) is 50, but 0 for females. Comparing mode frequencies shows that the frequency of zero books in a year containing a female character is higher than the frequency containing a male character. For instance, 13 years had no male animal characters while 24 years had no female animals. Examining each variable's range shows that males are present in up to 100 percent of the books, but females never exceed 75 percent. More striking, no more than 33 percent of books published in a year contain central characters who are adult women or female animals, whereas adult men and male animals appear in up to 100 percent.

Second, Table 1 shows important variations by type of character. The greatest parity exists for child central characters; the greatest disparity exists for animal characters. Boys appear as central characters in 26.4 percent of books and girls in 19 percent, but male animals are central characters in 23.2 percent of books while female animals are in only 7.5 percent. The data show one instance of a higher range of books including female characters than male: that for children, where up to 75 percent of books in a year contain girl central characters while a maximum of 50 percent contain boys. It should be noted, however, that only one year has 75 percent girls and that most years have higher ranges for boys than for girls.

Third, there are differences across book series, but—as with variations by type of character—these differences are by degree, not direction. Regardless of book series, males are always represented more often than females in titles and as central characters; however, the extent of the disparities differs. Golden Books tend to have the most unbalanced representations; Goldens have the highest mean and mode of males in the titles of any of the book types and the highest mean value of male central characters, followed by Caldecotts and the Catalog. The greatest disparity—animal characters—and the smallest—child characters—are also consistent across book types.

To portray the overall patterns in our 5,618 books, Table 2 provides frequencies and ratios for books, rather than years. All of the male to female comparisons presented in this table are statistically significant; in other words, for each variable in each book series, males are present in significantly more books than are females. When all books are combined, we find 1,857 (out of 5,618) books where males appear in the titles, compared to 966 books with females; a ratio of 1.9:1. For central characters, 3,418 books featured any male and 2,098 featured any female (1.6:1).

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<td></td>
<td>Ratio</td>
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<tr>
<td>Male:female</td>
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<td>1,857:986</td>
<td>1.7***</td>
<td>1,353:798</td>
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<tr>
<td>characters:</td>
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<tr>
<td>Male:female</td>
<td>1.6***</td>
<td>3,418:2,098</td>
<td>1.5***</td>
<td>2,480:1,614</td>
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<td>1.3***</td>
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<tr>
<td>male:female</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men:women</td>
<td>1.5***</td>
<td>872:587</td>
<td>1.3***</td>
<td>584:442</td>
</tr>
<tr>
<td>Boys:girls</td>
<td>1.3***</td>
<td>1,572:1,243</td>
<td>1.2***</td>
<td>1,183:852</td>
</tr>
<tr>
<td>Animal</td>
<td>2.6***</td>
<td>1,357:513</td>
<td>2.5***</td>
<td>893:350</td>
</tr>
<tr>
<td>male:female</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

NOTE: Values presented refer to ratios of males to females. Significance tests reported for male to female comparisons are from Wilcoxon Sign Tests.  
* p ≤ .05, ** p ≤ .01, *** p ≤ .001.
Once again, the greatest disparity is for animal characters (2.6:1) and the least for child characters (1.3:1). Figure 1 visually illustrates these four trends; the left-hand bar (darkest) represents the full set of books.

A closer look at the types of characters with the greatest disparity reveals that only one Caldecott winner has a female animal as a central character without any male central characters. The 1985 Honor book *Have You Seen My Duckling?* (Figure 2) follows Mother Duck asking other pond animals this question as she searches for a missing duckling. One other Caldecott has a female animal without a male animal also in a central role; however, in *Officer Buckle and Gloria*, the female dog is present alongside a male police officer. Although female animal characters do exist, books with male animals, such as *Barkley* (mentioned earlier) and *The Poky Little Puppy* (Figure 3), were more than two-and-a-half times more common across the century than those with female animals.

The greatest disparity in titles and overall characters occurs among the Little Golden Books and Caldecott award winners and the least disparity in the Catalog books (see Figure 1 and Table 2). Regardless of type of character (i.e., child or adult, human or animal), books in the Catalog are
significantly more equal than the Goldens. For instance, the ratio of males to females in Goldens' titles is 3.2:1 compared to 1.7:1 for Catalog books ($X^2 = 40.89, p < .01$, not presented in table; left-hand set of bars in Figure 1). Similarly, the ratio of male to female overall central characters in Goldens is 2:1 versus 1.5:1 for the Catalog books ($X^2 = 65.95, p < .01$; second set of bars in Figure 1). Caldecotts are significantly more equal than Goldens in titles ($X^2 = 6.03, p = .01$) and overall central characters ($X^2 = 4.61, p = .03$). When separated by type of central character, Caldecotts are more likely than Goldens to feature males; however, these differences are not statistically significant. Because of the overlap of some books ($N = 153$) between the Caldecott and Catalog data, we are unable to test for statistical significance here. However, each variable has higher ratios for the Caldecotts than for the Children's Catalog, signaling more equity in the Catalog books.
Trends by Historical Period

Data presented thus far provide a general picture of disparity in children's books. However, we expect historical and social factors to affect representation. Table 3 presents Cochrane-Orcutt regression coefficients for the straight time series analysis of parity, showing that books published during midcentury tend to display the least parity in the representation of male and female characters. As mentioned earlier, the dependent variable is distance from parity (i.e., male:female ratio of 1). Books published during the 1930s-1960s are more likely than earlier or later decades to feature males in the titles and, with one exception (1900s), as central characters.
TABLE 3: Time Series Regression Estimates of Parity for Male and Female Characters, 1900-2000

<table>
<thead>
<tr>
<th></th>
<th>Full Set</th>
<th></th>
<th>Children's Catalog</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>SE</td>
<td>Coefficient</td>
<td>SE</td>
</tr>
<tr>
<td>Parity among</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>characters in book</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>0.032</td>
<td>0.002</td>
<td>-0.003</td>
<td>0.002</td>
</tr>
<tr>
<td>Midcentury</td>
<td>7.35</td>
<td>0.125</td>
<td>0.721</td>
<td>0.145</td>
</tr>
<tr>
<td>Constant</td>
<td>0.214</td>
<td>3.581</td>
<td>0.880</td>
<td>3.942</td>
</tr>
<tr>
<td>DW</td>
<td>1.988</td>
<td>2.011</td>
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</tr>
<tr>
<td>$R^2$</td>
<td>0.272</td>
<td>0.216</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parity among central characters</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>-0.317</td>
<td>-0.003</td>
<td>-0.273</td>
<td>0.002</td>
</tr>
<tr>
<td>Midcentury</td>
<td>0.399</td>
<td>0.083</td>
<td>0.522</td>
<td>0.105</td>
</tr>
<tr>
<td>Constant</td>
<td>6.984</td>
<td>2.948</td>
<td>6.142</td>
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<tr>
<td>DW</td>
<td>1.999</td>
<td>2.003</td>
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<tr>
<td>$R^2$</td>
<td>0.196</td>
<td>0.203</td>
<td></td>
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</tr>
<tr>
<td>Parity among human central characters</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>0.273</td>
<td>0.002</td>
<td>-0.277</td>
<td>0.002</td>
</tr>
<tr>
<td>Midcentury</td>
<td>0.047</td>
<td>0.109</td>
<td>0.488</td>
<td>0.116</td>
</tr>
<tr>
<td>Constant</td>
<td>-4.645</td>
<td>3.421</td>
<td>6.058</td>
<td>3.136</td>
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<tr>
<td>DW</td>
<td>2.038</td>
<td>2.003</td>
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<tr>
<td>$R^2$</td>
<td>0.023</td>
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<td>0.089</td>
<td>0.002</td>
<td>0.055</td>
<td>0.002</td>
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<tr>
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<td>0.327</td>
<td>0.119</td>
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<tr>
<td>Constant</td>
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<td>3.421</td>
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<td>$R^2$</td>
<td>0.163</td>
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<tr>
<td>Parity among child central characters</td>
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<td></td>
</tr>
<tr>
<td>Year</td>
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<td>0.002</td>
<td>-0.031</td>
<td>0.002</td>
</tr>
<tr>
<td>Midcentury</td>
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<td>0.095</td>
<td>0.569</td>
<td>0.136</td>
</tr>
<tr>
<td>Constant</td>
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<td>3.047</td>
<td>1.171</td>
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<tr>
<td>DW</td>
<td>1.969</td>
<td>1.980</td>
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<tr>
<td>$R^2$</td>
<td>0.171</td>
<td>0.174</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parity among animal central characters</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>0.169</td>
<td>0.002</td>
<td>0.841</td>
<td>0.002</td>
</tr>
<tr>
<td>Midcentury</td>
<td>-0.073</td>
<td>0.102</td>
<td>0.302</td>
<td>0.181</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.456</td>
<td>3.013</td>
<td>-15.460</td>
<td>4.916</td>
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<tr>
<td>DW</td>
<td>1.954</td>
<td>2.079</td>
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<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.017</td>
<td>0.258</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: DW refers to Durbin Watson. $N = 100$ years due to serial correlation correction. Cochrane-Orcutt regression with semi-robust standard errors and serial correlation corrected with an AR(1) term. All dependent variables are normalized with a square root transformation. Coefficients for year are multiplied by 100.

*p ≤ .05. **p ≤ .01. ***p ≤ .001. (One-tailed tests).
Figure 4: Cover of About Harriet, written by Clara Whitehill Hunt, illustrated by Maginel Wright Enright; Published in 1916 and listed in the Children’s Catalog

Books in early and later years are more likely to feature females, such as Harriet (Figure 4) and Mirette (Figure 5), while midcentury books, like The Poky Little Puppy (Figure 3), feature more males. In rare cases, there are actually more females than males in both the early and later parts of the twentieth century (i.e., the bottom left-hand panel of Figure 6 shows that the 1910s and 1990s feature slightly more girls, like Harriet and Mirette, than boys as central characters). The most equitable category is child central characters. In contrast, animal characters are the least equitable. Although the most recently published books come quite close to parity for human characters (ratios of 0.9:1 [children] to 1.2:1 [adults] for
the 1990s), a significant disparity remains for animals (1.9:1). All of the panels in Figure 6 show a nonlinear pattern, with greatest inequality
mid-century.

Table 3 shows a substantial departure away from parity during the mid-century period (1930-1969) for most variables in the full set of books and
all variables in the Children’s Catalog. In other words, the 1930s-60s represent greater disparity in titles and central characters than earlier or later
periods. Like our full set of books, the Children’s Catalog is a collection of
books from multiple series and publishers. While differences in the mid-century period are not significant for human and animal central characters
in the full set of books, they are significant in the *Children's Catalog*. Supplemental analyses of the full set indicate that if we extend the midcentury period to 1920-1979, animals show a substantial departure from parity during this period compared to earlier and later years (coefficient = 0.238, $SE = .139$, $p = .045$, not presented in table). Vertical bars mark significant historical periods in Figure 6.

Additional analyses on the full set for 1970-2000 show a significant trend toward parity for titles and overall, adult, and child central characters; however, animals do not show a significant trend, and humans show a
marginal trend away from parity (results not presented in table). While these supplemental analyses are suggestive, they should be interpreted with caution due to the low N (30 years) and autocorrelation beyond the first order. In sum, this move toward parity in the post-1970 period is part of a curvilinear pattern of changing representation over the twentieth century. Animals do not exhibit this linear improvement.

When we turn to the other, specialized book series, neither the Little Golden Books nor the Caldecott award winners shows a significant pattern of greater disparity in midcentury (not presented in table). They also do not exhibit a significant linear trend toward parity over time. The lack of significant trends over time could be due to the smaller time periods of these series (i.e., 1942-1993 for Goldens, 1938-2000 for Caldecotts) and higher level autocorrelation, which suggests that these series operate somewhat differently than the others. Although the Goldens, upon visual inspection, appear to have a similar pattern for most variables as the Children's Catalog and full set of books, it is less pronounced and not significant in the regression analysis. The lack of significance for Caldecotts could also be due to the smaller number of books each year; Caldecotts are less consistent over time, particularly in terms of titles, than are the other book series (e.g., Caldecott titles have the highest ratios in the 1950s-1960s and 1980s-1990s; the highest ratios of animals are in the 1930s, 1960s-1970s, and 1990s).

DISCUSSION

Gender is a social creation; cultural representation, including that in children's literature, is a key source in reproducing and legitimating gender systems and gender inequality. The messages conveyed through representation of males and females in books contribute to children's ideas of what it means to be a boy, girl, man, or woman. The disparities we find point to the symbolic annihilation of women and girls, and particularly female animals, in twentieth-century children's literature, suggesting to children that these characters are less important than their male counterparts.

We provide a comprehensive picture of children's books and demonstrate disparities on multiple measures. Still, there may be reason to believe that our findings are conservative regarding the unequal representation children actually experience. This is due in part to how gender schemas and developing gender ideologies are compounded. Reader response research suggests that as children read books with male characters, their preferences for male characters are reinforced, and they will continue
reaching for books that feature boys, men, and male animals. Children's exposure, moreover, is likely narrower than the range of books we studied.

Adults also play important roles as they select books for their own children and make purchasing decisions for schools and libraries. Because boys prefer male central characters while girls' preferences are less strong, textbooks in the 1980s advised: "the ratio of 'boy books' should be about two to one in the classroom library collection" (Segel 1986, 180). Given this advice, disparities in actual libraries and classrooms could be even larger than what we found. Although feminist stories have circulated since at least the 1970s, "neither feminist versions of old stories nor new feminist stories are readily available in bookshops and libraries, and schools show almost no sign of this development" (Davies 2003, 49). Therefore, combating the patterns we found with "feminist stories" requires parents' conscious efforts. While some parents do this, most do not. A study of parents' reasons for selecting books finds most choices are based on parents' personal childhood favorites—indicating the continued impact of books from generations ago—and rarely on concern for stereotypes, particularly gender stereotypes (Peterson and Lach 1990).

Our historical lens allowed us to see change over time, but not consistent improvement. Rather, our findings support what other studies of media have shown: that coverage of social groups corresponds to changes in access to political influence (Burstein 1979; Cancian and Ross 1981). We found that the period of greatest disparity between males and females in children's books was the 1930s-1960s—precisely the period following the first-wave women's movement. Historians have noted, "No question, feminism came under heavy scrutiny—and fire—by the end of the 1920s" (Cott 1987, 271), coinciding with the beginning of this midcentury period. And, "'women's lib' was on everyone's lips" by 1970 (Evans 1997, 287), coinciding with the end of this period. Certainly, shifts in gender politics affect representation.

We studied the most blatant indicators of inequality: disparities in representation of males and females in titles and central characters. The imbalances we found have implications for the value and interest children might assign to characters, which in turn informs their understandings of gender. More in-depth examinations of gender performances in storylines and images may reveal more subtle and nuanced aspects of inequality. Such research could examine whether illustrations and characters' gender portrayals correspond to the time periods we identify; for example, while our measures of disparity do not significantly differ by period in the Goldens, a qualitative analysis might find significant differences. Qualitative research may also find differences by type of character. Consistent with
previous studies (e.g., Hamilton et al. 2006; Weitzman et al. 1972), we
found the greatest parity among child characters and the least among
animal characters; this same pattern appears in children’s coloring books
(Fitzpatrick and McPherson 2010). Young children’s attention is most
focused and content best understood when watching media including child
characters, nonhuman characters, animals, animation, frequent movement,
and purposeful action (as opposed to adults, especially adult men; live
action; and talk without much action; Schmitt, Anderson, and Collins
1999). Consequently, animals and children may have the biggest impact,
and more qualitative data about their gender presentations and perform-
ances in books would enrich our understanding of how they might influ-
ence children’s gender schemas.

Why is there a persistence of inequality among animal characters?
There is some indication that publishers, under pressure to publish books
that are more balanced regarding gender, used animal characters in an
attempt to avoid the problem of gender representation (similar to the dis-
appearance of Blacks during the height of the Civil Rights Movement
discussed in Pescosolido, Grauerholz, and Milkie 1997). As one book ed-
itor in Turow’s (1978) study of children’s book publishing remarked about
the predominant use of animal central characters: “It’s easier. You don’t
have to determine if it’s a girl or boy—right? That’s such a problem today.
And if it’s a girl, God forbid you put her in a pink dress” (p. 89). However,
our findings show that most animal characters are sexed and that in-
equality among animals is greater—not less—than that among humans.
The tendency of readers to interpret even gender-neutral animal characters as
male exaggerates the pattern of female underrepresentation. For example,
mothers (even those scoring high on the Sex Role Egalitarianism
Questionnaire) frequently label gender-neutral animal characters as male
when reading or discussing books with their children (DeLoache, Cassidy,
and Carpenter 1987) and children assign gender to gender-neutral animal
characters (Arthur and White 1996). Together with research on reader
interpretations, our findings regarding imbalanced representations among
animal characters suggest that these characters could be particularly pow-
nerful, and potentially overlooked, conduits for gendered messages. The
persistent pattern of disparity among animal characters may reveal a subtle
kind of symbolic annihilation of women disguised through animal imagery—
a strategy noted by others (Adams 2004; Irvine 2007; Grauerholz 2007).

Although children’s books have provided a steady stream of characters
privileging boys and men over girls and women, examining representation
across the long range illuminates areas where such messages are being
challenged. Clearly, children’s book publishing has been responsive to
social change, and girls are more likely to see characters and books about individuals like themselves today than midcentury. Feminist activism during the 1970s specifically targeted children’s books. For example, the publication of Weitzman et al.’s (1972) study appears to have influenced the publishing industry in important ways. Weitzman received funding from the NOW Legal Defense and Education Fund to reproduce children’s book illustrations for a slide show to parents, educators, and publishers. This presentation made its way around the world in an effort to promote social change (Tobias 1997). Some argue that Weitzman et al.’s study profoundly shaped the children’s book industry as a “rallying point for feminist activism,” including the creation of “nonsexist” book lists and feminist publishing companies and the “raising of consciousness among more conventional publishers, award committees, authors, parents, and teachers” (Clark, Kulk, and Clancy 1999, 71). The linear change we found since 1970 for most measures suggests this second-wave push for gender equity in children’s books may have had a lasting impact.

Nonetheless, disparities remain in recent years, and our findings suggest ways that children’s books are less amenable to change, especially in the case of animals. Although we do not know the complete impact of unequal representation on children, these data, in conjunction with previous research on the development and maintenance of gender schemas and gender identities, reinforce the importance of continued attention to symbolic annihilation in children’s books. While children do not always interpret messages in books in ways adults intend (see, e.g., Davies 2003), the messages from the disparities we find are reinforced by similar—or even more unequal—ones among characters in G-rated films (Smith et al. 2010), cartoons (Klein and Shiffrin 2009), video games (Downs and Smith 2010), and even coloring books (Fitzpatrick and McPherson 2010). This widespread pattern of underrepresentation of females may contribute to a sense of unimportance among girls and privilege among boys. Gender is a structure deeply embedded in our society, including in children’s literature. This research highlights patterns that give us hope for the success of feminist attention to issues of disparity and remind us that continued disparities have important effects on our understandings of gender and ourselves.

NOTES

1. Research has also followed Weitzman et al.’s (1972) focus on illustrations and characters’ gendered portrayals, corresponding with a dimension of symbolic annihilation focused on portrayals. Since our concern is presence, we do not review this research here.
2. The larger percentage of characters who could not be identified as male or female in the Catalog is most likely a function of relying upon descriptions of these books. Comparing our coding based on 50 books to those of the descriptions revealed no bias in the characters coded as nonidentifiable based on the descriptions; using the books, 50 percent were coded female and 50 percent male.

3. The larger ratio for central characters in the Golden Books but smaller ratio for particular categories is likely due to Goldens having a much higher percentage of books with animal central characters (60.99 percent) than Caldecotts (30.26 percent). Animals, therefore, factor more heavily into the overall male:female ratio for Goldens than Caldecotts. In addition, when we restrict all data to correspond with the available Golden data (1942-1993), significance patterns across book series persist. Since recent years are some of the most equitable, we wanted to ensure that Goldens were not less equitable simply for missing the last seven years (i.e., 1994-2000). Pearson's chi-square results support that this is not the case.

4. The Golden and Caldecott series contain only about half the data available in the other series and there is evidence of higher order autocorrelation (unlike results from Breusch-Godfrey LM tests for the full set and Catalog). Attempts to correct for autocorrelation reduced the number of cases and did not yield results substantively different from those that we report. These series operate somewhat differently than the others, despite the Goldens' visual similarities.

REFERENCES


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