Examining Gender Issues in Chinese Award-Winning Picture Books

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Abstract. As a popular cultural resource for children, picture books can convey cultural information and values about society to children. The information children appreciate and understand from books has a significant impact on their self-awareness and social development, including the socialization of children's gender roles. This study conducted a content analysis of 33 Chinese award-winning picture books to investigate how they depict gender. The results show that in Chinese award-winning picture books, (1) the proportion of females in the title/cover characters and main characters is obviously insufficient; (2) the difference in the number of male and female characters is not due to the gender of the author, because both male and female writers prefer to describe male characters; (3) there are serious gender stereotypes in Chinese picture books, showing obvious gender bias in the scenes and fields where the characters are portrayed. Males are more likely to appear outdoors, have more jobs, and females are more likely to stay at home as a mother or wife. The current research results suggest that picture book authors and publishers may lack some gender sensitivity and gender awareness. It will lead to and strengthen the gender bias in society.

Keywords: Picture Book, Gender Stereotype, Gender Representation, Gender Issues

1   INTRODUCTION

Although the current development of human society has entered the 21st century, gender disparities remain among the most persistent forms of inequality across all countries. However, the worst thing is not the temporary gender inequality and gender bias, but that the next generation may gradually accept that such inequality and bias are part of the sociocultural tradition and let it continue. Studies have shown that children had internalized traditional gender roles already from an early age[1]. Picture books, as the most popular children's books, are potentially a very influential source of information

books, as the most popular children's books, are potentially a very influential source of information to children at a time when they are in the process of forming their notion of appropriate gender roles. However, a number of studies show that there is a certain degree of female underrepresentation and gender stereotypes in children's picture books[2].

In contrast to the abundant research literature, there is a lack of research on gender issues in Chinese picture books. In view of the huge market potential of Chinese picture books and the important influence on children's future outlook on life and values, it is necessary to examine the gender representation and gender stereotypes in Chinese children's picture books. Therefore, this study will examine whether the gender ratios presented in picture books are unbalanced, whether gender stereotypes exist, and how they are shaping children's perceptions of gender.

2   LITERATURE REVIEW

Weitzman et al. examined the gender roles in 18 Caldecott Award winning picture books and honor books published between 1967 and 1971 and found that female roles were basically "invisible". In addition, there are very obvious stereotypes in the portrayal of gender roles. Boys were independent, active, adventurous leaders, often depicted in outdoor settings. Girls, on the other hand, were passive, quiet and dependent, often depicted in indoor settings[3].

Since then, gender issues in picture books have received continued attention from scholars. Some studies have compared gender issues in best-selling or award-winning picture books. For example, Hamilton et al. found little difference between the 2001 bestseller and 30 Caldecott Award winning and honor books from 1995-2001[4]. Gauthier, J. et al. examined all 82 of the picture books that had been awarded the Caldecott Medal between 1938 and 2019. They found an ebb and flow in the visibility and stereotyping of female characters in these books[5].

As time goes by, research data on gender issues in children's picture books has been updated. More recent studies show that stereotypical representation of gender and underrepresentation of female characters in children's books continues on. Even though the underrepresentation and the stereotypical image decreased, male characters are still having a more dominant representation in children's literature [6]. Much more needs to be done to create more gender equality in children's picture books.

3   RESEARCH METHODS

The method of content analysis was used for this study to analyze the illustrations in award-winning works of Feng Zikai's China Children's Picture Book Award, in order to determine whether there is gender imbalance and stereotypes in Chinese award-winning picture books.

3.1 Book Selection

The award-winning works of Feng Zikai's China Children's Picture Book Award are the main objectives of this survey. At present, there are a total of 42 award-winning books in this award. Among them, the main characters of 5 books are animals, plants or objects whose gender is indistinguishable; 3 picture books are non-fiction and lack necessary storylines; 1 picture book is not available due to publication reasons. Therefore, the above books are excluded from the study. In the end, we obtained total 33 sample.

3.2 Survey Instrument

Based on numerous prior studies in this area, combining Chinese gender attitude, we drafted a comprehensive instrument to analyze the illustrations of each picture book. We measured whether the gender ratio is unbalanced in terms of two indicators: numbers of male and female title characters and main characters. These characters could be human or non-human (e.g., an animal or plant). The gender of a character is determined based on subjective judgments of visual cues such as the character's clothing, body shape, or hairstyle characteristics combined with the corresponding character's name, pronouns, or other linguistic cues in the text. When the gender of a character cannot be determined, the character is classified as unidentified. When examining gender stereotypes, We counted the frequency of male and female main characters in indoor or outdoor, in private or public spheres; the male and female main characters were more often portrayed as a family role or a role with occupation.

In order to increase the objectivity of the coding process, two researchers randomly selected 10 books from the list and coded the main characters in each book. Percentages of agreement between the two researchers, revealed 100% agreement on the identification of cover and main characters in the books, and 93.25% and 96.43% agreement on the locations and portrayals of the main characters, respectively.

4   RESULTS

To ensure the effectiveness and reliability of the analysis, Student's t-test, chi-square test of independence and chi-square test for goodness of fit were used to test the research data. When the data is normally distributed and a comparison of means between two groups is required, the Student's t-test is the appropriate method. However, if the analysis involves categorical data, the chi-square test is more suitable. All significance tests used an alpha level of 0.05.

4.1 Research Question 1

Is there an imbalance between males and females in the number of title/cover characters and main characters?

Null Hypothesis 1a. Null Hypothesis 1a stated that there would be a balanced distribution of females and males as title/cover characters in the Chinese picture books. Among the title/cover characters of the 33 sample books, 45.5% (n=15) were male, 18.2% (n=6) were female, 15.2% (n=5) were both male and female, 12.2 (n=4) were unidentified, and 9.1 (n=3) of those with no characters(see Fgure1). In order to test the first hypothesis, those picture books containing only female or only male characters in the title or cover were extracted for analysis. In this subset, there were more male characters (71.4%, n=15) than female characters (28.6%, n=6). Using a chi-square test for goodness of fit, a significant difference was found with regards to the frequency of female and male characters in titles or covers of books, $\chi2(1, n=21)=3.857$, $p=0.050$. Thus, male characters are more likely to appear in the title and (or) cover of Chinese picture books, which rejects null hypothesis 1a.

Null Hypothesis 1b. Null Hypothesis 1b stated that there are no statistically significant differences in the number of male and female main characters in Chinese picture books. Null Hypothesis 1b was evaluated with a Student's t-test. The mean number of male characters per book was 1.55 (SD=1.92) and the mean of female characters was 0.79 (SD=0.82), yielding a 1.96:1, $t(64)=3.186$, $p<0.002$ (see Table1). Thus, males outnumber females statistically significantly in the main characters. The researchers rejected the null hypothesis.

4.2   Research Question 2

Is the gender imbalance in picture books statistically related to the gender of picture book writers and illustrators?

Null Hypothesis 2a. Null Hypothesis 2a, there is no statistically significant relationship between the gender of the book writers and the gender of the main characters. Male writers were more likely to write about male main characters (66.7% versus33.3%; 20 male versus 10 female); similarly, female writers also wrote more male main characters (66% versus 34%; 31male versus 16 female). Pearson's chi-square test was used to determine if there was a relationship between the gender of the book writers and the gender of the main characters. The results of the chi-square test were not significant, $\chi2(1, n=77)=0.004$, $p=0.949$ (see Table1). The researcher failed to reject the null hypothesis.

Null Hypothesis 2b. Null Hypothesis 2b, there is no statistically significant relationship between the gender of the book illustrators and the gender of the main characters. Male illustrators drew more male main characters (68.3% versus 31.7%; 28 male versus 13 female); similarly, female illustrators also preferred male main characters (62.9% versus 37.1%; 22 male versus 13 female). The results of the chi-square test were not significant, $\chi2(1, n=76)=0.248$, $p=0.619$ (see Table1). The researcher failed to reject the null hypothesis.

Table 1. Correlation Analysis Between the Gender of Picture Book Writers/llustrators and the Gender of Main Characters

Measure	Male (%)	Female (%)	x^2	p
Male Writers	20(66.7)	10(33.3)	0.004	0.949
Female Writers	31(66)	16(34)		
Male Illustrators	28(68.3)	13(31.7)	0.248	0.619
Female Illustrators	22(62.9)	13(37.1)		

4.3   Research Question 3

Do picture books portray main characters in a stereotypical way?

Null Hypothesis 3a. Null Hypothesis 3a, there is no statistically significant relationship between a main character's gender and his/her portrayal as being in outdoor or indoor locations. The research data revealed that male main characters were more likely to appear outdoors than indoors (68.2% versus 31.8%); while female main characters were almost equally outdoors and indoors (50.5% versus 49.5%). The results of the chi-square test of independence were significant, $\chi2(1, n=1408)=32.01$, $p<0.001$ (see Table2). Therefore, the researchers rejected the null hypothesis.

Null Hypothesis 3b. Null Hypothesis 3b, there is no statistically significant relationship between the gender of the main character and whether he/she was portrayed more as a family role or as an occupational role. In the sample book, there were 22 adult male characters, 54.5% (n=12) were depicted as family roles and 50% (n=11) were occupational roles; 14 adult female characters, 85.7% (n=12) were depicted as family roles and 14.3% (n=2) were occupational roles. Fisher exact test was used, p=0.074, which was not statistically significant (see Table2). The researchers failed to reject the null hypothesis.

Table 2. Descriptive Statistics of the Way in which the Main Characters are Portrayed

Measure	Male (%)	Female (%)	x^2	p
Indoor/Outdoor	49.5/50.5	31.8/68.2	32.01	0.000
Family/Occupational Role	85.7/14.3	54.5/50.5	-	0.074

5   DISCUSSION

The analysis of these data shows that there is a serious lack of female representation in Chinese children's picture books. In terms of the number of title/cover characters, main characters, and the overall frequency of characters, male significantly exceeded female. These results are consistent with previous studies. However, in our sample books, the difference in the number of male and female main characters is not due to the gender of the author, as both male and female authors tend to depict male characters. In contrast, in similar surveys of English picture books, male authors were par-

ticularly responsible for this imbalance in representation. The male authors were more likely to choose to depict male characters, while female authors do not have significant gender preferences[7]. According to data released by the National Bureau of Statistics of China in 2023, the overall population gender ratio in China is 104.49 (with 100 females), equivalent to a male to female ratio of 51.24:48.76. The gender imbalance in both reality and picture books is related to the traditional Chinese society's preference for sons over daughters. Although the Chinese government implemented a series of measures aimed at eliminating gender discrimination and gender differences after the founding of the People's Republic of China, deeply rooted traditional beliefs were difficult to reverse at the time.

The research results also indicate the existence of gender stereotypes in Chinese children's picture books. Due to the constraints of the traditional idea of " men outside, women inside ", there is a clear gender bias in depicting the scenes where the characters are located. Male are more likely to appear outdoors, with more professional roles, while female are more likely to stay at home as a mother or wife. However, it is worth mentioning that although men have more professional roles than women in Chinese picture books, they also often appear as family roles such as fathers or grandfathers. This is different from the findings of Anderson, D. A. et al., who showed that The books generally paint a absent, seldom-mentioned father[8].

6   CONCLUSION

The present study revealed significant female underrepresentation and gender stereotypes in analyzed picture books. When depicting characters, the picture book author unconsciously prefers male characters and highlights the shaping of male characters. This unconscious tendency will make children form a mindset of focusing on males and ignoring the females, which will lead to and strengthen the concept of gender bias in society. Therefore, underrepresented females need more attention in picture books.

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