

The Overview of Criteria for Gender Bias in Textbooks

Chia Lin Lu¹

Bachelor of English Language and Literature
English Teacher, Municipal Gong-Guan Junior High School

Yao Jung Lin, Ph D²

(Corresponding Author)
Graduate Institute of Education,
National Changhua University of Education

Abstract: *A school could be one of significant places to nurture gender bias for the long duration of education for children and youngsters. The instructional materials like textbooks were important for students' learning activities, which might be concerned with gender bias. Students could follow these textbooks and put the sexist behaviors or attitudes into practice. Accordingly, to choose textbooks without gender bias embedded was of great significance to students' learning. In this article, the criteria built for the examination of gender bias in textbooks worldwide would be reviewed in order to provide an overview of them for future researchers or teachers who were interested in them.*

Keywords: *criteria, gender bias, textbook*

Introduction

Gender roles literally referred to the roles played differently by males and females. They were the behaviors, attitudes, and interests commonly appropriate to females and males in a specific society or culture (Liebert & Wicks-Nelson, 1981). There were three main theories concerned with gender roles, including biological explanation, socialization explanation, and structural/cultural explanation (Lueptow, Garovich-Szabo, & Lueptow, 2001; Weyer, 2007). The first biological explanation signified the biological differences between males and females as a result of an evolution in light of genetic patterns about them. The second socialization explanation was related to societal expectations toward males and females, from which the inequality between them are generated. The last structural/cultural explanation was considered the different role allocations for males and females in society for gender, especially the family and occupational roles (Weyer, 2007).

The research on gender had been historically based on biological determinism, in which the differences between females and males were natural and inborn. Nevertheless, gender studies had turned to the perspective of socialization development (Kim, 2008), and the theories of socialization had received more attention than biological ones (Bartol, Martin, & Kromkowski,

2003). As Simone de Beauvoir (1989), one of the greatest feminist theorist in this century, proposed in *The Second Sex* that “One is not born, but rather becomes, a woman.” Her idea referred to the very perspective that females had been stereotyped in sex and forced to learn how to become a woman under the instruction of traditional convention. It was a shift from biologically-based view towards the socially constructed views of how one was referred to be as a man or woman (Hahn, Bernard-Powers, Croco, & Woyshner, 2007). People would be endowed with the roles expected in the specific process of socialization to become males or females. The gender differentiation was rooted in social institutional systems rather than in personal predetermined properties (Bussey & Bandura, 1999). In other words, the fixed stereotypical images of gender roles were formulated in light of the social expectations of females and males.

Gender bias in textbooks

As the biased gender roles mentioned above, gender bias was generated from distorted roles of females or males stereotyped by social norms. They could be seen as the prejudiced behaviors or attitudes due to gender differences (Miller, 1980). Gender bias was also the reflection of one’s biased gender roles for females or males in the formulation of social environment. This could have lasted for a long while (Winter, 2010), and had bad influences upon females or males. In case females or males were associated with certain stereotypical gender patterns of behaviors or attitudes, those individual differences would be likely to be neglected, and one’s self-esteem might be weakened for the negative impact of gender bias (Davis, 1999).

A school could be one of significant places to nurture gender bias for the long duration of education for children and youngsters. The dominated cultural beliefs might be delivered to the educated youth through school instructional systems (Bourdieu & Passeron, 1990), and students’ belief regarding gender would be formed and processed at school (Law & Chan, 2004). Those learning activities at school thus needed to be paid attention to with care for their relations with gender bias, whether in an obvious or hidden way. To be specific, the instructional materials like textbooks were important for students’ learning activities, which might be concerned with gender bias. As Lee (2011) argued, the instructional materials had been considered key mechanisms of socialization, and the youth were endowed with the values and attitudes of differentiated gender roles included within textbooks all the time.

That is, students could be instilled the stereotypical gender-biased beliefs as given the images or texts in the textbooks (Frawley, 2005). The impact of sexist textbooks as the authoritative texts of school upon students (Carson, 1994) when their value systems developed was immense hence. Students might follow these textbooks and put the sexist behaviors or attitudes into practice. Accordingly, to choose textbooks without gender bias embedded was of great significance to students’ learning. Thereupon, in this article, the criteria built for the examination of gender bias in textbooks worldwide would be reviewed in order to provide an overview of them for future researchers or teachers who were interested in them.

The criteria for gender bias in textbooks

Some researchers had proposed criteria for the analysis of gender bias in textbooks (GBIT), including Benjamin Rifkin (1998), Sunderland (1994), Sadker, Sadker, & Zittleman (2009), Fang (2000) and Lu & Chuang (2006). Benjamin Rifkin (1998) proposed the criteria for the analysis of foreign language textbooks. His eighteen criteria consisted of those for the pictorial text and for the verbal texts. The three criteria for the pictorial text were:

1. the percentage of pictorial texts including female only or a preponderance of females
2. the percentage of pictorial text depicting females in the foreground or background
3. the percentage of pictorial text depicting females in motion or in stasis

On the other hand, as to the verbal text, the fifteen criteria were:

1. the frequency with which females and males are unambiguously mentioned
2. The frequency with which different names for females and males
3. the frequency with which females are the referents of first person singular pronouns, second person singular pronouns, and second person plural pronouns
4. the frequency with which females are the (logical) subjects of sentences
5. the ratio of unique verbs used by females
6. the ratio of unique adverbs used by females
7. the ratio of unique adjectives used by females
8. the frequency with which females precede males when they are included in a single phrase
9. the frequency with which males are depicted in domestic roles / setting
10. the frequency with which females are depicted in occupational roles / setting
11. the ratio of different occupations cited for females and those for males
12. the ratio of references to females and those to males in units or section titles or any typographically highlighted texts
13. the ratio of references to famous females to famous males
14. the ratio of instances in which male subjects are the brunt of a joke to those instances in which female subjects are the brunt of a joke

Rifkin's criteria for text were even more than those for illustration in number, in which the emphasis upon the analysis of verbal text was apparent. Though the criteria for illustration were few, they were quite significant because they uncovered the major types of GBIT listed below, such as gender visibility, focus, and stereotyping. In the part of verbal text, those criteria were also composed of three main types, including the analysis of visibility, language, and stereotypical gender role, occupation, contribution. Because the analysis of language especially abounded due to its eight criteria, over the half of those for the verbal text, Rifkin's criteria might be more suitable to examine GBIT in the language of text.

Sunderland (1994) also proposed four types of sexism related to textbooks. They included 1) grammar: the sexist use of generic pronoun "he", -ess decline, and Ms., 2) invisibility: fewer female characters than male characters or vice versa, 3) stereotypes in gender roles: occupations, relationships, actions, and ages, and 4) language as discourse in dialogues: the gender composition, females / males who speak the most and first, and the language functions represented by both sexes. Of the four sexist types, the stereotypes of gender roles were found concerned the most for the EFL teachers according to Sunderland's investigation (1994). The possible result was that these teachers worried that those stereotypes might have great impacts upon students' development toward gender. Though Sunderland's criteria were less than Rifkin's in number, they still contained the intrinsic ones, such as visibility, stereotyping, and language. More importantly, different from Rifkin's universal criteria for foreign-language textbooks, the analysis of language in Sunderland's was specifically constructed for the analysis of English-language textbooks.

In addition to the former two researchers, Sadker, Sadker, & Zittleman (2009) proposed seven forms of bias found in K-12 textbooks in their research. These forms of bias might be utilized to examine gender, racial, or cultural bias in the instructional materials. They included 1) **invisibility**, identified as the first basic form of bias, deliberately excluding certain groups like females or people with disabilities, 2) **stereotyping**, as the most familiar form of bias, imposing the rigid sets of characteristic on members of targeted groups, such as the stereotyping domestic roles for females, 3) **imbalance and selectivity**, as the representation of the sole perspective pertaining to certain issues or situations, simplifying and distorting their complexity, 4) **unreality**, as the lack of information that readers or audiences needed to confront and resolve, 5) **fragmentation and isolation**, as the situation of certain groups physically and virtually isolated from others on purpose with the implication for debasement, 6) **linguistic bias**, as the effective conveyor of bias in the negative description of targeted groups or misleading uses of language like the abundant representation of male terms or pronouns, and 7) **superficial equity**, as a relatively new form of bias occurring under the illusion of superficial bias-free situation, such as the little descriptions of contribution in the introduction of outstanding females.

Some of Sadker, Sadker, & Zittleman's forms of bias were similar with Rifkin's or Sunderland's criteria, including "invisibility," "stereotyping," "imbalance and selectivity," and

“linguistic bias.” However, the rest of their forms of bias, such as “unreality,” “fragmentation and isolation,” and “superficial equity,” were relatively new perspectives toward the examination of GBIT, and could be used to include in the criteria of future research.

Apart from the criteria mentioned above, Fang (2000) first proposed the comprehensive criteria of gender bias within textbooks in Taiwan. There were thirty-five criteria constructed, including fifteen in the analysis of illustration and twenty in the analysis of text. These criteria were classified into three categories, including “very important,” “important,” and “less important.” In the pictorial analysis, the “occupational job” and “stereotypical portrait” were seen as “very important,” and another four criteria, including “main character,” “stereotypical activity,” “contribution,” and “stereotypical relationship,” were considered “important.” The other nine “less important” criteria were the “appearances of male and females,” “size of pictures,” “the difference in amounts of male and females,” “status,” “housework doing,” “the location of male and females,” “the character in the front and back covers,” “characters related to real life,” and “stereotypical parental role.”

In the verbal analysis, ten out of twenty criteria were looked upon as more important than the rest. Two were “very important,” and eight, “important.” The “very important” criteria contained “the involvement in social service” and “the stereotypical appearance or personality.” The eight “important” criteria referred to “the difference of the number of male and female characters,” “occupational job,” “stereotypical activities,” “contribution,” “generic pronoun,” “the choice of gender issue,” “the stereotypical gender relationship,” and “the reasons for success or failure.” Fang’s criteria abounded in number and might explore gender bias comprehensively whether in pictorial or verbal texts. Nevertheless, the analysis of language was excluded in these criteria because they were designed for all subjects of textbooks like Math or Music.

The similar criteria for the examination of Taiwan’s primary and secondary school textbooks were made by Lu and Chuang (2006). The criteria also analyzed the pictures and texts in the textbooks. In the aspect of pictures, there are six criteria proposed, including “visibility,” “the stereotypical appearance,” “behaviors or activities,” “personification,” “effort or contribution,” and “the different sizes of pictures for males and females.” In the aspect of text, the criteria were made up of seven categories, including “gender role,” “gender trait,” “occupational jobs,” “interaction,” “stereotypical appearance,” “contribution,” and “multiple-cultural family.”

Those criteria about illustration constructed by the foreign and local researchers are summarized in Table 1 below and classified into three main types based upon their features, including visibility, focus, and stereotypes (Fang, 2000; Rifkin, 1998; Sadker, et al., 2009; Sunderland, 1994).

Table1 The summary of criteria for gender bias in textbooks: Illustration

Type	Criteria	Literature	Content
Visibility	Frequency of appearance	Rifkin (1998)	females or males only or a preponderance of them
		Lu & Chuang, (2006)	visibility
Focus	Location	Rifkin (1998)	females or males in the foreground or background
	Motion	Rifkin (1998)	females or males in motion or in stasis
	Main character	Fang (2000)	main character
	Size	Lu & Chuang, (2006)	different sizes of pictures for females or males
Stereotypes	Occupation	Sunderland (1994)	stereotypical occupational jobs
		Fang (2000)	stereotypical occupational jobs
	Relationship	Sunderland (1994)	stereotypical relationship
		Fang (2000)	stereotypical relationship
	Stereotypes in gender role	Sunderland (1994)	action, age
	Portrait	Fang (2000)	stereotypical portrait
		Lu & Chuang, (2006)	stereotypical appearance
	Personification	Lu & Chuang, (2006)	personification
	Activity	Fang (2000)	stereotypical activity

	Lu & Chuang, (2006)	behaviors or activities
Contribution	Fang (2000)	contribution
	Lu & Chuang, (2006)	effort or contribution

Besides, the criteria for the analysis of text are also summarized in Table 2. Those criteria are classified into five types, including visibility, focus, stereotyping, language, and other. (Fang, 2000; Rifkin, 1998; Sadker, et al., 2009; Sunderland, 1994).

Table2 The summary of criteria for gender bias in textbooks: Text

Type	Criteria	Literature	Content
Visibility	Frequency of appearance	Sunderland (1994)	1. fewer female characters than male characters or vice versa
			2. gender composition in dialogue
			3. females or males who speak the most
		Fang (2000)	the difference of the number of female and male characters
		Lu & Chuang, (2006)	visibility
		Sadker, Sadker, & Zittleman (2009)	deliberately exclusion of certain groups
Focus	Main narrator	Lu & Chuang, (2006)	main narrators
Stereotypes	Portrait of appearance or personality	Fang (2000)	stereotypical appearance or personality
		Sadker, Sadker, &	Imposing of rigid sets of characteristic on members of targeted

	Zittleman (2009)	groups
Activity	Fang (2000)	stereotypical activities
Domestic role	Sunderland (1994)	stereotypical gender role
	Rifkin (1998)	females or males depicted in domestic roles
Occupation	Rifkin (1998)	1. females or males depicted in occupational roles 2. different occupational jobs cited for females or males
	Fang (2000)	occupational jobs
Relationship	Fang (2000)	stereotypical relationship
Social service	Fang (2000)	involvement in social service
Contribution	Fang (2000)	contribution
Reasons for success or failure	Fang (2000)	description of reasons for success or failure of females or males
Language	Name	Rifkin (1998) different names for females or males
	Referent	Rifkin (1998) referents of first person singular pronouns, second person singular pronouns, and second person plural pronouns
	Subject	Rifkin (1998) (logical) subjects of sentences
	Diction	Rifkin (1998) unique verbs, adverbs, and adjectives used by females or males
	Title	Rifkin (1998) reference to females or males in units or section titles
	Fame	Rifkin (1998) references to famous females or males
	Brunt of a joke	Rifkin (1998) females or males as the brunt of

		jokes
Generic pronoun	Sunderland (1994)	generic "he"
	Fang (2000)	"he" as the representative of females and males
Gender suffix	Sunderland (1994)	"-ess" decline
Ms.	Sunderland (1994)	The sexist implication for Ms.
Firstness	Sunderland (1994)	females or males who spoke the first in dialogue
	Rifkin (1998)	females preceding males when they were included in a single phrase, or vice versa
Linguistic bias	Sadker, Sadker, & Zittleman (2009)	negative description of targeted groups or misleading uses of language
Other	Gender issue	Fang (2000)
		choice of gender issues
	Sadker, Sadker, & Zittleman (2009)	representation of the sole perspective pertaining to issues, situations, or groups
Unreality	Sadker, Sadker, & Zittleman (2009)	the lack of information that readers or audiences need to confront and resolve

fragmentation and isolation	Sadker, Sadker, & Zittleman (2009)	some groups were physically and virtually isolated from others on purpose
Superficial equity	Sadker, Sadker, & Zittleman (2009)	bias occurring under the illusions of superficial bias-free situations

Conclusion

The review of criteria for GBIT in this article could uncover the development of how gender bias might be examined from different perspectives. The four types of visibility, focus, stereotypes, and language composed of their respective categories were found as the main items for the analysis of texts and illustrations. They might be still utilized to examine gender bias in the future instructional materials for their significance. On the other hand, Sadker, Sadker, & Zittleman (2009)'s new forms of bias, especially those attributed to the type of other like unreality, fragmentation and isolation, and superficial equity would initiate alternative approaches to explore gender bias which might be hidden under the textbooks. It would be expected that those gender-fair textbooks analyzed in the traditional criteria might be gender-biased through the examination of Sadker, Sadker, & Zittleman's new criteria.

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