

Comparing *Johnson's Common School Arithmetic* and *Browne's Arithmetical, Combined
with Easy Lessons in Mental Arithmetic*

by

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2017-2018 Blake Scholar

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Browne's Arithmetical, published in 1865, and *Johnson's Common School Arithmetic*, published in 1864, both seek to teach arithmetic to Southern students. Both books contain simple tables, vocabulary and definitions of arithmetical terms, and simple equations. However, both books are mostly composed of word problems. There is an identifiable shift in tone between the two books, despite one year's difference in the dates each were published. Consider the rhetorical differences between the two using the guides below.

Historical Considerations and Comparisons

Browne's Arithmetical was published in 1865 and *Johnson's Common School Arithmetic* was published in 1864. The Civil War began in 1861 and ended in 1865.

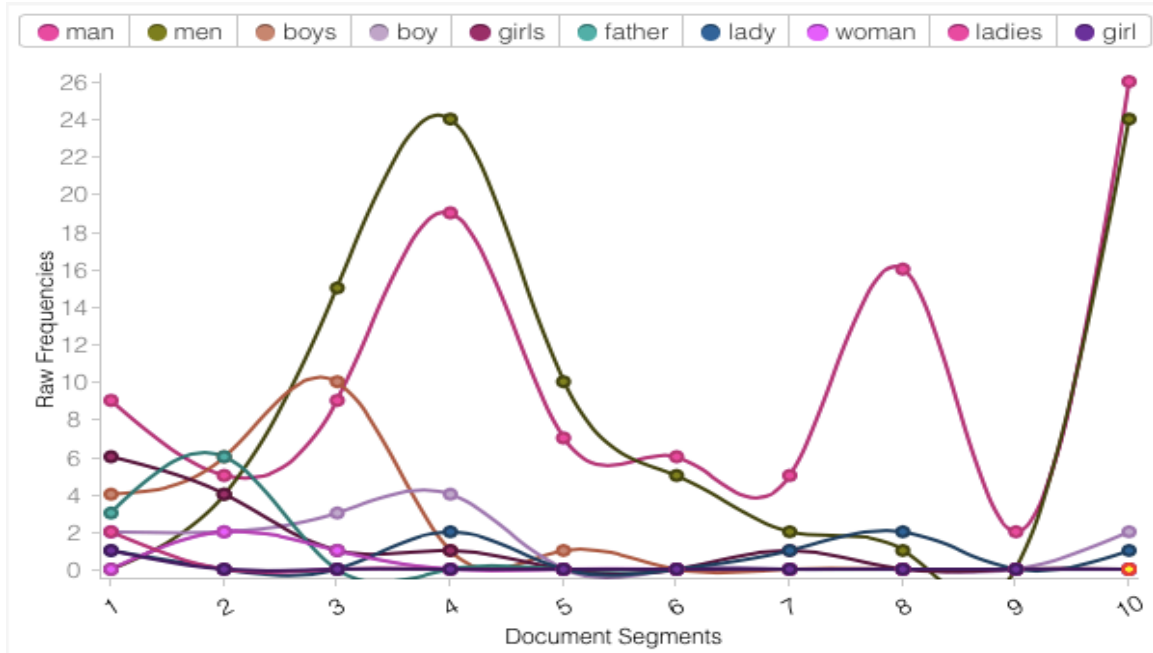
Guiding Questions: How might the year Browne was published, coming at the close of the war, affect the tone of the book? How might the year Johnson was published, still in the middle of the war, affect the tone of the book? How is inequality demonstrated in each of the books? Can you conclude any differences between the books that could indicate the authors' attitudes toward the war? Toward inequality?

Consider Browne's inclusion of measurements unique to the North (Browne 62) and Johnson's avoidance of such measurements.

Guiding Questions: What might this suggest about the differences in the attitude toward the North during these different parts of the war? How might this speak to the authors' attitudes toward the success of the recession?

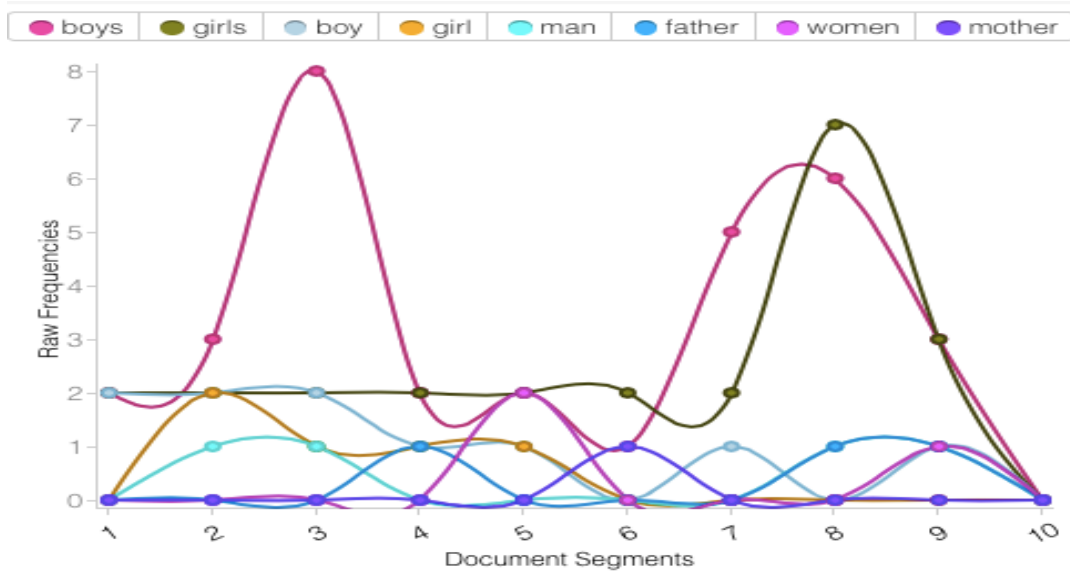
Digital Analysis and Gender Inequality

Men Vs. Women in *Johnson's Arithmetical*



Voyant-Tools.org

Men vs. Women in *Browne's Arithmetical*



Voyant-Tools.org

The line graphs above represent the results of a Voyant-Tools analysis (Voyant-Tools.org). Voyant-Tools is a digital tool, available for free online, that conducts word counts and provides context for any document that can be copied and pasted.

After copying and pasting *Browne's Arithmetical* and *Johnson's Common School Arithmetic*, the searches were modified to count words relating to men and women (man, woman, men, women, boy, boys, girl, girls, lady, ladies, mother, father etc.). As can be seen on the x axis of the line graph above, the entire document that is copied and pasted is automatically divided into 10 segments. The color-coded line graphs indicate the frequency of use per document segment. Notice that in both graphs, the use of words indicating men and boys are used more frequently than words indicating women and girls. Notice also that among the terms represented on the graph, the words "man" and "men" are the most used of any other term in *Johnson's Common School Arithmetic*. The most used terms, of those represented on the graph, in *Browne's Arithmetical* are "boys" and "girls."

Browne's Arithmetical shows a slight increase in how often men are mentioned compared to women, with women only appearing about 2/3 the times men are mentioned. Men and boys are mentioned 49 times and women and girls are mentioned 33 times. As the graph above indicates, boys and girls are mentioned almost evenly. Women are presented in mostly submissive roles and men are presented in a variety of roles. Boys and girls are often described engaging in similar activities, often at play and sometimes at play with each other.

In *Johnson's Common School Arithmetic*, the word "man" appears 104 times, "men" appears 85 times, "woman" never appears, and "women" appears only 3 times. In fact, the word "man" alone (not including other words that indicate men) appears more frequently than any term related to arithmetic, such as "divide," "multiply," "add," "sum," "equation," and "subtract." However, there are specific numbers in the tens of thousands that occur more than the word "women." The terms "boy(s)" and "girl(s)" appeared similarly in frequency throughout the book, and often referred to children of both genders in similar roles, such as being in school or at play. One difference among boys and girls, though, is that boys are sometimes mentioned killing small animals, such as shooting birds, where girls are never mentioned killing anything. Finally, the word "mother," is never mentioned, despite the word "father" appearing many times.

Similar to Browne's, when women are mentioned in *Johnson's*, even with a simple "she" pronoun, they are presented as having submissive roles, such as tending a garden or carrying out small business transactions with very small amounts of money, often in cents or a single dollar. Men are presented as having a variety of roles, such as farmers, businessmen, and merchants, and carry out a variety of business transactions, even with thousands of dollars at a time.

Guiding Questions: What could these results indicate about the authors' attitudes toward woman and gender equality? Given the difference in the years each of these books were published and the differing representations of men and women between the two books, how could these results suggest how sentiments toward varying types of inequality – including gender inequality – progress similarly? Consider also the evolution of racial and gender inequality beyond the Civil War, even to today.

Digital Analysis and Violence

Though there are various types of violence present in both books, this digital analysis and comparison is focused on the words “kill(ed),” “shoot,” and “shot.”

Browne’s contains the word “kill(ed)” three times, “shoot” two times, and the word “shot” never occurs in the book. *Johnson’s* contains the word “kill(ed)” 12 times, “shoot” three times, and “shot” four times. Both books use these words to indicate the shooting and butchering of animals, and both also contain these words in reference to war.

However, Johnson mentions the Civil War specifically and more frequently than Browne. In the context of the words “kill(ed),” “shoot,” and “shot,” Johnson refers to the killing of Yankees and describes Confederate soldiers killing Yankees, which indicates that Johnson is referring to the Civil War specifically. Browne merely mentions that “giants” went out to war, without specifying which war, who was being killed, or who did the killing.

Guiding Questions: How might this reflect each author’s sentiments toward violence?

Could this suggest how war influences the normalization of violence? What might this suggest about each author’s sentiments toward the war? What might this suggest about the sentiments towards the Civil War during the specific years that these books were published, *Johnson’s* in 1864 and *Browne’s* in 1865?

Suggested Searches for Further Study on Violence: Each author mentions the use of weapons in a number of word problems. Consider searching several weapon types (such as knives or guns). Compare the frequency with which each book contains the use of weaponry. Also, compare and contrast the various uses of the weapons in each book.

Were guns used to shoot people? To shoot animals? Were guns or knives used in acts of war? etc.

Digital Analysis and the Relationships Between Animals and People

Though many animals are mentioned in both books, this digital analysis and comparison is focused on the word “bird(s).” Both books contain word problems that mention birds, with the word “bird(s)” occurring 12 times in *Browne’s* and 18 times in *Johnson’s*. The most striking difference between the mentioning of birds in the books is that *Johnson’s* includes mostly violent acts against birds and *Browne’s* only includes one violent act against birds. Another striking difference is that *Browne’s* includes birds as pets while *Johnson’s* does not.

Of the twelve times that the word “bird(s)” is used in *Browne’s*, eight of those occurrences are neutral, sometimes mentioning birds multiple times in the same word problem. Often students are merely asked to add various kinds of birds such as in this problem, “Ten black birds and two red make how many?” (Browne 10). One occurrence mentions keeping a bird as a pet, “Henry had four pet birds; having given them away he wanted to know how many were left?” (Browne 24). Two times in the same word problem, birds are mentioned as being “in a pie” (Browne 18), and once birds are mentioned as being shot, with 27 birds being shot at once (Browne 49).

Of the 18 times the word “bird(s)” is used in *Johnson’s*, ten violent acts toward birds occur, such as killing them and trapping them. Sometimes many birds are killed at once, with 50 or more birds killed at a time. Two times in the same word problem, birds are “scared away.” The other occurrences are neutral, simply mentioning birds in a bush

or tree. As stated previously, keeping a bird – or any animal – as a pet is never mentioned in *Johnson's*.

Guiding Questions: How might the treatment of animals, and in this case birds, reflect the authors' attitudes toward violence?

Suggested Searches for Further Study on Animals: Search various animal types and study the context of each. What role does the animal play? Is the animal interacting with people? Are the interactions violent? Is the animal a pet? Does the animal work on a farm?

*This document is designed to guide the comparison of *Johnson's School Arithmetic* and *Browne's Arithmetical*. For the general study of these books, and for further considerations for comparison, explore "Confederate Schoolbooks as Rhetorical Study and Other Analytical Studies," available on this website.

Works Cited

Browne, George Y. *Browne's Arithmetical Tables, Combined with Easy Lessons in Mental Arithmetic*. Franklin Printing House, 1865.

Johnson, L. *Johnson's Common School Arithmetic*. Branson & Farrar, 1864.