

MEDIA -BIAS: A STUDY ON GENDER-SPECIFIC APPROACH IN REPORTED VIOLENT ACTS

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Introduction

Inspired by 1990's Adam Jones' article [The Globe and Male](#), we decided to expand the initiative of analyzing media attention to the "physical suffering and institutionalized victimization of women in North American society."^[1] Our objective was to determine how perceived media bias has changed, if at all.

There is an embedded variation or a natural error associated to a study that relies on perceived media bias. For example, Mr. Jones' criteria for his perceptions of media bias may probably differ from that of any other person's perception of bias. Such a difference might be due to a possible range of factors such as culture and societal preconceptions.

Strategies previously identified by Mr. Jones^[1] were re-evaluated two decades later , as described in our methodology. At the same time, we incorporated a statistical approach by collecting data that could be used as crucial variables in a matrix format and obtained correlations that were then analyzed to test potential hypotheses.

It is important to highlight that we abide by the fact that articles selected here for analysis are not necessarily representative of the Globe and Mail's overall coverage of social issues nor the evidence presented in this report serve as proof of bias in media in Canada.

The legacy that we hope to leave after this research is to further explore understudied contemporary topics with a social concern, such as is the case for male experience.

Methodology

Review of daily issues of The Globe and Mail- Ontario edition- for the period of March 1 to April 24 of 2018 (same period approached by Jones). Data collection process started a couple of months after the chosen sampling date, for which microfilms from the Toronto Reference Library were used.

Skimming through microfilms allowed to identify the articles used to complete the data-matrix used in this study whenever gender-specific discussion of violent victimization and acts of violent victimization, gender used as a classification variable-including usage of gender-neutral classification approach- and/or there is a gender-focus in the context of culture.

The development of such matrix was based on Krippendorff's 2013 work ^[2] where the following phases of the research process are applied:

- Sampling Units: articles by staff writers, including editorials and excluding columnists.
- Context Units: Gender-specific discussion of violent victimization.
- Units of Measurements:
 - Prominence- story's area relative to a full page.
 - Science- story's mention of data, mention of investigators, authorities or mention of scientific sources.
 - Categorization of depicted violence: homicidal, serious (including sexual abuse), mild, verbal harassment (including sexual harassment) and robbery, break-in or property trespassing.

Collected data was used to generate statistical summaries, which were then used to infer contextual phenomena based on the available observations and seeking the simplest possible explanation.

Tables 1 and 2 indicate relevant frequencies that were used for proceedings statistical analysis of a total of 162 newspaper articles.

Table 1. Gender Frequency Portrayed as Victim.

Victim Gender	Count of Victim Gender
F	31
F, M	34
M	53
missing	2
NA	42
Grand Total	162

F...Female

M...Male

Table 2. Gender Frequency Portrayed as Perpetrator.

Perpetrator Gender	Count of Perpetrator Gender
F	9
F, M	4
M	86
missing	3
NA	60
Grand Total	162

F...Female

M...Male

Based on content analysis , each article was categorized as follows : negative towards females, negative towards males, neutral, positive towards females or positive towards males.

Data Analysis

Mathematical regressions and correlations indicate how certain selected variables are associated with each other. Table 3. shows the selected variables subjected to statistical regression analysis. We selected three crucial independent variables (X_i) with the intention to examine the correlation with one dependent variable (Y). We tested hypotheses about potential gender bias in mass media reports of violence. The dependent variable (Y) is the *prominence* assigned to the information about violent events. We show that news' prominence is explained by the perpetrator gender, the gender of the victim and the bias of the media against men. More precisely stated, we tested three hypotheses:

Hypothesis 1: If the perpetrator gender is male, the prominence of the news regarding violent events is higher.

Hypothesis 2: If the victim gender is male, the prominence of the news regarding violent events is lower.

Hypothesis 3: The higher the anti-male bias in the news, the higher the prominence.

Table 3. Variables Subjected to Regression Analysis.

Variable	Description
prominence (Y)	The total area of a story relative to a full-page. It may include the presence of visuals and the newspaper's section.
perpetrator gender (X_1)	Whenever perpetrator(s) of a violent act is referenced as male, female or neutral gender in the article.
victim gender (X_2)	Whenever the victim(s) of a violent act is described as male, female or neutral gender in the article.
bias toward men (X_3)	Quantitative assignation of perceived bias towards masculine gender based on qualitative factors.

To test these hypotheses, we ran two regression models using the method of Ordinary Least Squares which has the general expression of $Y = \sum b_i X_i + a$. Tables with the statistical analysis of the three proposed hypothesis are shown in the Appendix section.

Regression model 1 includes all the explanatory factors, and the resulting linear regression expression is as follows:

$$\textit{prominence} = 0.038\textit{bias toward men} - 0.114\textit{victim gender} + 0.368\textit{perpetrator gender} + 0.536.$$

In this model, the gender of the perpetrator is the only independent variable that significantly explains the prominence assigned to the news. The positive sign of the regression coefficient suggests that when the perpetrator is a male person, the news obtains more prominence. The variables "victim gender" and "bias towards men" have the expected signs: when a victim is a male person, and the news contains pro-men biases, the news is less prominent. However, the regression coefficients of these two variables are not statistically significant.

In model 2, we omitted the two variables with no significant impact on prominence and, and the resulting linear regression expression is as follows:

$$\textit{prominence} = 0.442\textit{perpetrator gender} + 0.404$$

In this case, the sign of the coefficient remains positive and both its magnitude and statistical significance increase (from 0.368 to 0.442).

Thus, we conclude that the news is significantly more prominent when an alleged perpetrator is a male person, which suggests the existence of an anti-men bias in the Globe and Mail when reporting violent events during the period examined.

Anti-male Bias in Violent Events. 1990 vs 2018

When it comes to an analysis of social topics it is important to keep in mind that the general perception of such topic is influenced by a series of factors that are unique/characteristic of each time-period. Even though our initial objective was to compare “apples to apples” we must acknowledge that the cultural and political context has changed greatly in the last 20 years since the Jones’ article was first published.

Table 4 compares the Globe and Mail’s usage of gender-specific strategies in reporting violent acts at two different points in time (two decades apart).

Table 4. Comparison of gender-specific strategies used by The Globe and Mail in reporting violent acts in 1990 vs. 2018

Strategy	1990 ^[1]	2018
Concepts of gender discrimination	Gender-specific discussion of violent victimization limited to discussion of violence against women alone.	Balanced approach regarding gender-specific discussion of violent events. 25% of selected articles have a gender-neutral approach while the rest of the articles specified the victim’s gender. Among those, violence against men accounted for 33% of the cases. This high percentage might be influenced by the fact that for the selected period of time, the serial killer case of McArthur

		was prevalent in the news.
Usage of statistics	Statistics discussed in a highly selective fashion by either emphasizing women's suffering or de-emphasizing men's suffering.	No usage of statistics was identified in the sample size of the articles selected for this study.
Usage of gender categorization by themes	Usage of gender-neutral classification variable in cases where the victims of violence cited in statistical data are overwhelmingly male (for example, suicide and on-the-job homicide). Or usage of bland language when the male sex is identified, diminishing the broader social and cultural context of the physical suffering.	Violent events encompass a variety of topics, including: serial killings, suicide, and on-the-job homicide. The language used in describing such events is comparable to the language used in cases where victims of physical suffering were females.
The approach in "culture of violence" gender-wise	Where gender is used as a classification variable, the gender-focus is on depictions of violence solely against women in	All cartoons that represent violent events explicitly show male as perpetrators. A female character appears solely

	the culture which promote such violence.	as either victim or as the voice of "reason" in the story.
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Conclusions

There are two streams of conclusions drawn from this research: one comparative to the strategic approach taken by the selected newspaper - the Globe and Mail- as depicted in Table 4- and one that can be considered an absolute finding since it is based on the statistical data analysis of the current period of time.

There has been an improvement in the journalistic/editorial approach that the media takes regarding the reporting of violent events. A clear bias towards female victimization approach in 1990 has evolved towards a perceived increase in neutral gender position of depicted violent events. We can say that an increased proportion of articles took a neutral approach in relation to gender positioning of violence i.e. in favor or against any of the genders is a positive indicator of objectivity. However, it is relevant to highlight that when it comes to cartoon section I the association of violence to male subjects is still predominant. This may not represent a preference of the editorial selection of articles but it may indicate a stereotype, a collective cultural bias that associates males with acts of violence .

On the other hand, our data shows that when the perpetrator of a violent act is male the story tends to receive greater prominence.

Recommendations

This study attempted to reproduce and to expand on the work of Jones (1990). Our work was focused on only one newspaper and the sample of articles was limited to only one month. Bias estimation was qualitative and based on the subjective judgment of the raters. Future studies ought to examine a longer time-period and a broader sample of media e.g. different newspapers and TV news channels that would allow for a more robust analysis of gender-bias in Canadian media. Other outcome variables could also be included e.g. how long a given story remained on the front pages, or in the media at all.

Appendix

Model 1

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.536	.162		3.310	.001
Bias towards men	.038	.132	.035	.290	.773
Victim Gender (male =1, others = 0)	-.114	.161	-.087	-.707	.482
Perpetrator Gender (male=1, others = 0)	.368	.180	.241	2.048	.044

a. Dependent Variable: Prominence

Model 2

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.404	.047		8.542	.000
Perpetuator Gender (male=1, others = 0)	.442	.142	.279	3.119	.002

a. Dependent Variable: Prominence

Correlations

		Promi nence	Victim Gender (male =1, others = 0)	Perpetuator Gender (male=1, others = 0)
Prominence	Pearson Correlation	1.000	-.041	.279**
	Sig. (2-tailed)		.729	.002
	N	118.0 00	74	117
Victim Gender (male =1, others = 0)	Pearson Correlation	-.041	1.000	.138
	Sig. (2-tailed)	.729		.173
	N	74	99.000	99
Perpetuator Gender (male=1, others = 0)	Pearson Correlation	.279**	.138	1.000
	Sig. (2-tailed)	.002	.173	
	N	117	99	159.000

** . Correlation is significant at the 0.01 level (2-tailed).

References

1. Jones, A. (1998). The Globe and Males. The Other Side of Gender Bias in Canada's National Newspaper. Retrieved from <http://adamjones.freesevers.com/globe.htm>
2. Krippendorff, K. (2013). Content Analysis: An introduction to its methodology. 3rd Edition. Los Angeles, CA: Sage Publications, Inc.
3. Regression and correlation analysis. (n.d.) In Encyclopedia Britannica online. Retrieved from <https://www.britannica.com/science/particle-physic>