

A Distant Reading of Gender Bias in Dutch Literary Prizes

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INTRODUCTION

DUTCH authors have been criticizing the homogeneity and the dominance of white men authors in Dutch literary prize nominations and the Dutch literary scene (Ramdas, 1997; Amatmoekrim, 2015; Rouw, 2015; Weijers, 2014). This homogeneity is clearly seen in the Dutch literary prizes. In general fiction the two most important prizes are the *Boekenbon Literatuurprijs* and the *Libris Literatuur Prijs*. For these two prizes, about 80 % of the nominated books from 1987 to 2020 were written by men. Such a discrepancy is quite remarkable, considering that an equal number of women and men writers publish novels in the Netherlands (Koolen, 2020).¹ The Libris Literatuur Prijs acknowledged and analyzed the gender inequality in their nominations (Dijkgraaf and Appel, 2013). The results indicate that fewer women are nominated for the long list than expected from the number of novels by women on the gross list. In addition, juries with more women do not nominate more women writers.

The dominance of white men in the Dutch literary scene is enforced by several factors besides literary prizes. Literary publishers and other professionals value formal aspects of literary works, and perceive prestigious novels as ‘literary’ and ‘universal’ (Koren and Delhay, 2019). They often place white writers in the framework of ‘literary’ and ‘universal’ works. Contrarily, non-white writers and publishers are placed in frameworks based on their identity. For example, book reviews in Dutch news articles stress the ethnic and cultural background of non-white writers more, in comparison to German newspapers and newspapers from the USA (Berkers, 2009). This emphasis creates the idea that novels written by non-white authors are different from the Dutch norm of literary quality, positioning these works outside of the norm (Staszak, 2009). Another factor that is likely to influence the inequality in the nominations of novels is the influence of prestige of the genre, the author, and the novels (Koolen et al., 2020; van der Deijl et al., 2019). Lastly, the homogeneous idea of literary quality is reinforced by the Dutch school curriculum. Dera (2021)

¹ We use the terms *women* and *men* writers instead of *female* and *male* writers, to emphasize that we are referring to gender, not sex.

	NomNov	NomAut	NotNom	Total
Novels	100	102	98	300
Unique authors	73	35	83	191
Novels by women writers	36	42	43	121
Novels by men writers	64	60	55	179

Table 1: Number of novels in the three subcorpora

shows that the majority of the works students read were written by Dutch white men. Women and non-western authors are structurally underrepresented in the curriculum, which upholds the idea that the norm of literary quality is associated with white, western men writers (Dera, 2020).

It is clear that the causes of the homogeneity in Dutch literary awards are multifaceted. Given that there is an overrepresentation of white men in Dutch literary nominations, this inequality may be visible in the word use of the authors, as people tend to use similar language as their peers (Eckert, 2012). Therefore, this research investigates whether it is possible to identify author gender inequality in Dutch literary prizes using quantifiable literary qualities. We hypothesize that nominated and not nominated novels can be identified based on word use. We also hypothesize that, due to the dominance of men authors in literary nominations, nominated novels written by men will be easier to classify compared to nominated novels by women; and vice versa for not nominated novels.

METHOD AND RESULTS

WE COLLECT a corpus of 300 original Dutch novels from 1989–2012. The corpus consists of three subcorpora:

1. NomNov: nominated novels,
2. NomAut: not nominated novels by nominated authors, and
3. NotNom: not nominated novels by not nominated authors.

The NotNom novels are published by the same publishers as the NomNov novels, and were selected to resemble the same distribution of publication years as the NomNov novels. The distribution between these three categories, author gender distribution and number of unique authors can be found in Table 1.

A well-established method to analyze text in relation to author gender is logistic regression using word frequencies (Herring and Paolillo, 2006; Bamman et al., 2014; Fast et al., 2016; Koolen and van Cranenburgh, 2017; Nguyen, 2017). In this research, we consider three classification tasks:

1. identifying NomNov, NomAut and NotNom novels (see Table 2),
2. identifying whether a novel has been nominated (NomNov) or not (NomAut and NotNom), see Table 3; and lastly
3. predicting author gender (see Table 4).

COMPLETE CORPUS	Precision	Recall	F1-score	# novels
NOMNOV	56.9	70.0	62.8	100
NOMAUT	<u>56.7</u>	<u>33.3</u>	<u>42.0</u>	102
NOTNOM	61.5	73.5	73.5	98
Accuracy			58.7	300

Women	Precision	Recall	F1-score	# novels
NOMNOV	<u>50.0</u>	58.3	53.8	36
NOMAUT	51.7	<u>35.7</u>	<u>42.3</u>	42
NOTNOM	68.0	79.1	73.1	43
Accuracy			57.9	121

Men	Precision	Recall	F1-score	# novels
NOMNOV	60.5	76.6	67.6	64
NOMAUT	61.3	<u>31.7</u>	<u>41.8</u>	60
NOTNOM	<u>56.7</u>	69.1	62.3	55
Accuracy			59.2	179

Table 2: Logistic regression results on nominated novels (NOMNOV), not nominated novels by nominated authors (NOMAUT) and not nominated novels by not nominated authors (NOTNOM). The results on the complete corpus are also evaluated per author gender, man or woman.

We use the frequencies of the 5000 most frequent words and bigrams as features. The logistic regression is evaluated using 5-fold cross-validation. The novels are divided over the folds in such a way that the model is never trained and tested on novels from the same author. The predictions are evaluated using precision, recall, F1-score and overall accuracy. Precision is the ratio of correct predictions in a particular class to the total predictions made of that class. Recall is the ratio of correct predictions of a particular class to all instances in the target class. F1-score is the harmonic mean of precision and recall.

The results of the NOMNOV, NOMAUT and NOTNOM logistic regression model and the nominated-or-not model clearly show that it is possible to identify nominated and not nominated novels based on textual features only. The two models on classification of nomination (NOMNOV, NOMAUT and NOTNOM and nominated-or-not) all obtained an accuracy higher than chance. The results also show that the not nominated novels by nominated authors (NOMAUT) are the hardest to classify. The results in Table 2 and 3 also show that for the novels by women, not nominated novels have the highest scores. For novels by men writers, the NOMNOV novels have the highest score in the NOMNOV, NOMAUT, NOTNOM model. Also, the difference in F1-score between the nominated and not nominated novels is bigger for the novels written by women writers, than for the novels written by men writers.

The logistic regression on author gender classification confirms this pattern. The novels written by women score consistently lower than the novels written by men. The difference in F1-score between these author genders are, however, smallest for the NOTNOM novels. Thus, the results seem to indicate a relation

COMPLETE CORPUS	Precision	Recall	F1-score	# novels
NOMINATED NOVELS	<u>56.1</u>	<u>64.0</u>	<u>59.8</u>	100
NOT NOMINATED NOVELS	80.6	75.0	77.7	200
Accuracy			71.3	300

Women	Precision	Recall	F1-score	# novels
NOMINATED NOVELS	<u>52.8</u>	<u>52.8</u>	<u>52.8</u>	36
NOT NOMINATED NOVELS	80.0	80.0	80.0	85
Accuracy			71.9	121

Men	Precision	Recall	F1-score	# novels
NOMINATED NOVELS	<u>57.7</u>	<u>70.3</u>	<u>63.4</u>	64
NOT NOMINATED NOVELS	81.2	71.3	75.9	115
Accuracy			70.9	179

Table 3: Logistic regression results: nominated (NomNov) or not nominated (NomAut and NotNom). The results on the complete corpus are also evaluated per author gender, man or woman.

between the word use in novels written by women and not nominated novels by not nominated authors, as the novels written by women writers consistently have the highest score for the NotNom class. For the novels written by men, such a relation between the NomNov, NomAut and NotNom classes was not found, but the novels written by men did consistently have higher results than the novels written by women, for all classes. This was probably not due to the higher number of novels by men authors in the corpus, as this pattern was also seen, though not as strongly, in the same models trained on a subset of the complete corpus with an equal author gender balance.

In order to interpret these results in relation to writing styles and topics of the novels, we made an LDA topic model of the corpus. A few topics could be identified that are more typical in nominated or not nominated novels, which could sometimes be related to author gender. For example, the topic ‘Second World War’ occurs most in not nominated novels of not nominated authors, and the topic writing in nominated novels. Other topics, such as war, seem to relate a specific nomination class, but are actually more gender specific. For example, the topic hospital occurs most in NomNov novels written by men and not nominated novels (both NomAut and NotNom) written by women. This supports the theory that for particular topics and genres, the judgment of literary quality of a certain topics or genres is higher when a novel is written by a man writer (Koolen et al., 2020).

We also used Cosine Delta to compare the difference in writing styles between novels that have been correctly classified in all three logistic regression classifications and novels that have been misclassified in all three classifications. No clear relation between writing style and nomination class or author gender could be identified, as the relation between the writing styles seems to highly depend on the distance between writing styles of particular authors. The re-

COMPLETE CORPUS	Precision	Recall	F1-score	# novels
MAN	75.9	82.7	79.1	179
WOMAN	<u>70.5</u>	<u>61.2</u>	<u>65.5</u>	121
Accuracy			74.0	300

NOMNOV	Precision	Recall	F1-score	# novels
Man	77.1	84.4	80.6	64
Woman	<u>66.7</u>	<u>55.6</u>	<u>60.6</u>	36
Accuracy			74.0	100

NOMAUT	Precision	Recall	F1-score	# novels
Man	74.6	83.3	78.7	60
Woman	<u>71.4</u>	<u>59.5</u>	<u>64.9</u>	42
Accuracy			73.5	102

NOTNOM	Precision	Recall	F1-score	# novels
Man	75.9	80.0	77.9	55
Woman	<u>72.5</u>	<u>67.4</u>	<u>69.9</u>	43
Accuracy			74.5	98

Table 4: Logistic regression results: author gender. The results on the complete corpus are also evaluated per nomination class, NomNov, NomAut or NotNom.

sults do show that frequently nominated authors Arnon Grunberg and Kristien Hemmerechts have a writing style closely related to each other, and that all nominated authors have a writing style has a positive relation with the writing style of Harry Mulisch. This indicates that there is a particular writing style in Dutch literature, which sets the norm of writing styles that are judged to be of high literary quality. For the NotNom novels, such a pattern could not be identified.

CONCLUSION

THIS RESEARCH not only shows that it is possible to investigate author gender inequality in Dutch literary prizes with quantifiable literary qualities, but it also indicates that the inequality in Dutch literary prizes is rooted in a homogeneous writing style that is related to the writing style of men. The results clearly show that nominated and not nominated novels are distinguishable, both for men and women writers, thus indicating that a particular word use exists that identifies literary quality. However, this word use seems to be further removed from women writers, particularly from their word use in nominated novels, as the classification of novels written by women consistently have the lowest performance. The analysis of the topics in nominated and not nominated novels indicate that the relation between nominated and not

nominated novels and author gender is rather complex, and depends on the topic which is investigated. The difference in writing style of nominated and not nominated novels cannot be clearly defined, but the results do suggest that there is a positive correlation between the writing style of Harry Mulisch and writing styles that are perceived to be of literary quality.

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