

The Linguistic Landscape of Stream-of-Consciousness Literature*

Exploring Word Frequency and Mental Health Themes in the Works of Joyce, Woolf, Proust, Mansfield and Eliot from Project Gutenberg

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April 3, 2024

This project focuses on understanding the language used by renowned, transnational stream of consciousness authors James Joyce, Virginia Woolf, Marcel Proust, Katherine Mansfield and T.S Eliot. By analyzing the word frequency of their famous works, I explore mental health themes like anxiety, depression, trauma, and existential angst. Through word frequency analysis of nine novels, I aim to uncover shared linguistic patterns and gain insights into the authors' mental states, offering a glimpse into themes of self-identity and existential contemplation.

1 Introduction

Stream of consciousness is a narrative technique that aims to capture the continuous flow of thoughts, feelings, and sensations experienced by a character without conventional organization or punctuation (Bernini and Fernyhough 2022). It mirrors the unpredictable and interconnected nature of human thought processes, often revealing the inner workings of the character's mind in an intimate and unfiltered manner (Long and So 2016). In literature, most scholars agree that stream of consciousness reveals the complexities of mental-scapes, shedding light on the nuances of characters' emotional well-being and psychological struggles (Nyongesa 2023). Its relationship to mental health lies in its ability to offer insight into the depths of consciousness, providing a platform to explore themes such as anxiety, trauma, and existential questioning. As such, this paper has mined the texts of a total of nine novels from the volunteer archive, Project Gutenberg, to examine the mental health themes of famous stream of consciousness authors, namely by Joyce, Woolf, Proust, Mansfield and Eliot, from the modernist era of literature, spanning from late 19th century to the mid-20th century ("Project Gutenberg," n.d.). (more stats and data mentioned here)

*Code and data are available at: <https://github.com/ponolite/stream-consciousness-language.git>

By analyzing these textual datasets, I seek to pose and answer crucial questions: What are some important factors contributing to this relationship between mental health, disassociation and stream of consciousness? Moreover, how does this relationship vary differently across different demographics of authors, for instance, authors with different geographical locations and genders? Understanding these dynamics is crucial in having an informed understanding of the West's late 19th to mid-20th century socio-political landscape, especially in regards to how authors and creative writers navigate and deal with then-taboo topics such as existential angst, mental health issues and disabilities.

Thus, my estimand is the correlation between famous stream of consciousness novels, words related to mental health themes and their frequency. This is considered in terms of the nine selected novels only, namely Joyce's *A Portrait of the Artist as a Young Man* and *Chamber Music*; Woolf's *Mrs Dalloway* and *Jacob's Room*; Proust's *Swann Way*; Mansfield's *Bliss* and *The Garden Party*; and Eliot's *The Waste Land* and *The Love Song of J. Alfred Prufrock*. Through our analysis, we found that (percentage, number and data here, main results)...

To further understand the correlation between stream of consciousness novels and mental health themes, in [Introduction](#), our paper briefly discusses the nature of stream of consciousness literature, relevant authors and the works that we've chosen to analyze. Subsequently, in [Data](#) and [\[Result\]](#), we talk about the nature of the data obtained and analyze the results garnered from the data with suitable tables and charts. Next, [Discussion](#) provides further insights and future areas of study. Finally, [\[Conclusion\]](#) summarizes our main findings. To complete the paper, [Appendix](#) clarifies how each variable within each dataset is generated and tables to accordingly demonstrate this.

The novel texts used for analysis were sourced from Project Gutenberg under the library `gutenbergr` (Johnston and Robinson 2023) (`rgutenberg?`). Data was generated, extracted and cleaned using the open-source statistical programming language R (R Core Team 2022), leveraging functions from `tidyverse` (Wickham et al. 2019), `tidytext` (Silge and Robinson 2016), `rmarkdown` (Allaire et al. 2024), `dplyr` (Wickham et al. 2022), `ggplot2` (Wickham 2016), `scales` (Wickham, Pedersen, and Seidel 2023), `here` (Müller 2020), `wordcloud` (Fellows 2018), `tm` (Feinerer, Hornik, and Meyer 2008) and `knitr` (Xie 2014).

2 Data

2.1 Measurement

2.2 Source Data

2.3 Data Cleaning and Word Tokenization

2.3.1 Word Count

Table 1: Table of Number of Classes Students Considered for Regrade Requests by Students' Gender

Table 2: Exemplary Table of Unprocessed Stream of Consciousness Novels (James Joyce)

Book ID	Text	Book
4217	Welcome, O life! I go to encounter for the millionth time the reality	A Portrait of the Artist as a Young Man
4217	of experience and to forge in the smithy of my soul the uncreated	A Portrait of the Artist as a Young Man
4217	conscience of my race.	A Portrait of the Artist as a Young Man
4217	NA	A Portrait of the Artist as a Young Man
4217	<i>April</i> 27. Old father, old artificer, stand me now and ever in good	A Portrait of the Artist as a Young Man
4217	stead.	A Portrait of the Artist as a Young Man
4217	NA	A Portrait of the Artist as a Young Man
4217	NA	A Portrait of the Artist as a Young Man
4217	Dublin, 1904.	A Portrait of the Artist as a Young Man
4217	Trieste, 1914.	A Portrait of the Artist as a Young Man

Table 3: Exemplary Table of Tokenized Stream of Consciousness Novels (James Joyce)

Book ID	Book	Word
4217	A Portrait of the Artist as a Young Man	<i>april</i>
4217	A Portrait of the Artist as a Young Man	27
4217	A Portrait of the Artist as a Young Man	father
4217	A Portrait of the Artist as a Young Man	artificer
4217	A Portrait of the Artist as a Young Man	stand
4217	A Portrait of the Artist as a Young Man	stead
4217	A Portrait of the Artist as a Young Man	dublin
4217	A Portrait of the Artist as a Young Man	1904
4217	A Portrait of the Artist as a Young Man	trieste
4217	A Portrait of the Artist as a Young Man	1914

Table 4: Exemplary Table of Word Count of Stream of Consciousness Novels (James Joyce)

Word	Count
stephen	373
god	194
eyes	180
soul	178
father	151
life	131
cranly	124
dedalus	124
day	123
time	121

2.3.2 Comparative Word Frequency

Table 5: Word Frequency of Stream of Consciousness Novels, A Comparison Between Five Authors

Word	James Joyce	Katherine Mansfield	Marcel Proust	T.S. Eliot	Virignia Woolf
abandon	0.0001118	NA	8.19e-05	NA	NA
abandoned	0.0001118	NA	8.19e-05	NA	NA
abandonment	0.0001118	NA	8.19e-05	NA	0.000142
abase	0.0001118	NA	NA	NA	NA
abased	0.0001118	NA	NA	NA	NA
abasing	0.0001118	NA	NA	NA	NA
abbey	0.0001118	NA	NA	NA	0.000142
abbots	0.0001118	NA	8.19e-05	NA	NA
abetted	0.0001118	NA	NA	NA	NA
abhorring	0.0001118	NA	NA	NA	NA
abiding	0.0001118	NA	NA	NA	NA
abject	0.0001118	NA	8.19e-05	NA	NA

3 Model

3.1 Model set-up

3.1.1 Model justification

4 Results

4.1 The Dominant Vocabulary of Stream of Consciousness

4.2 Great Britain as the Center of Stream of Consciousness Literature

4.3 Gendered Mental Landscape of Stream of Consciousness Novels

4.3.1 Comparing Female Stream of Consciousness Authors

4.3.2 Comparing Male Stream of Consciousness Authors

4.4 Transnational Stream of Consciousness Novels and Mental Health Themes

4.5 Combined Texts: Trends, Bigram and Trigram Analysis

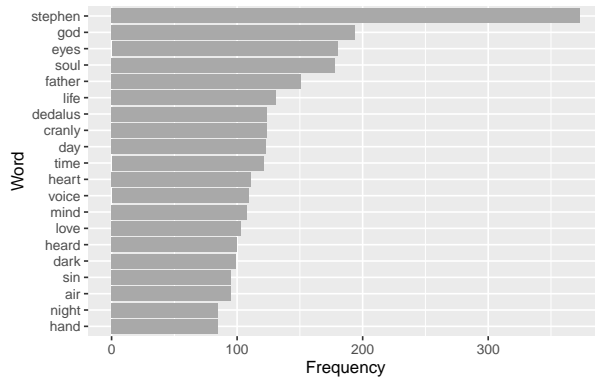
5 Discussion

5.1 Mental Health Vocabulary: Patterns and Trends

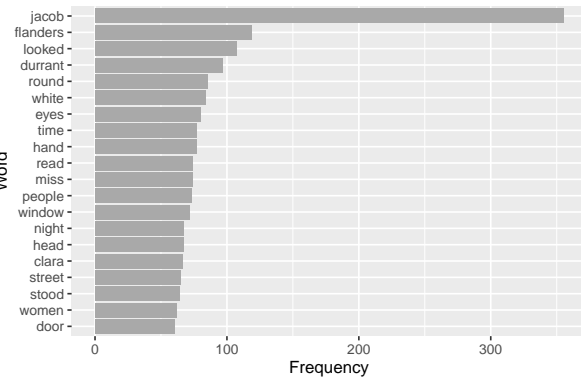
Discuss vocabulary patterns and word trends

5.2 Insights into Socio-Political Landscape of the West's Modernist Era

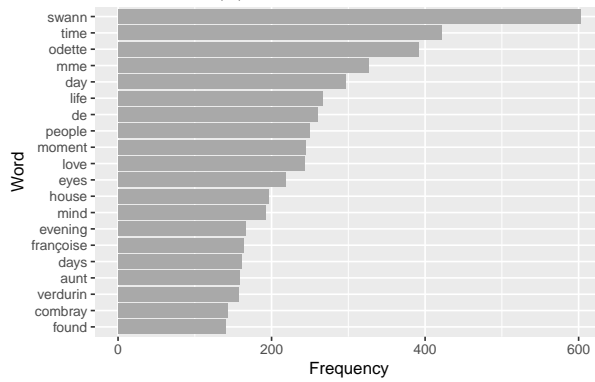
The novels' linguistic patterns reflect the socio-political landscape of the Western hemisphere, from late 19th century to the mid-20th century.



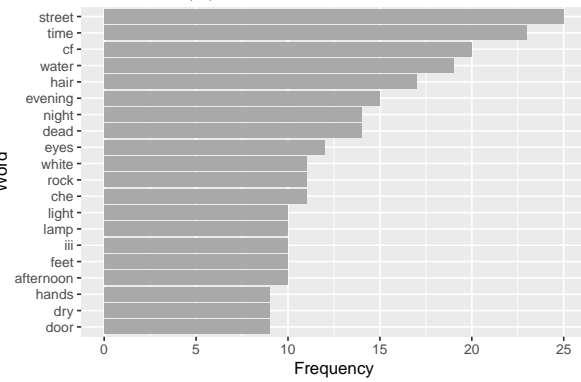
(a) James Joyce



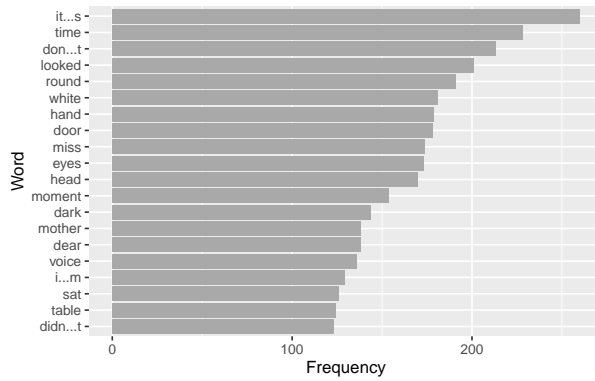
(b) Virginia Woolf



(c) Marcel Proust



(d) T.S. Eliot



(e) Katherine Mansfield

Figure 1: Comparative Analysis of Top 20 Word Frequencies by Stream of Consciousness Authors' Novels

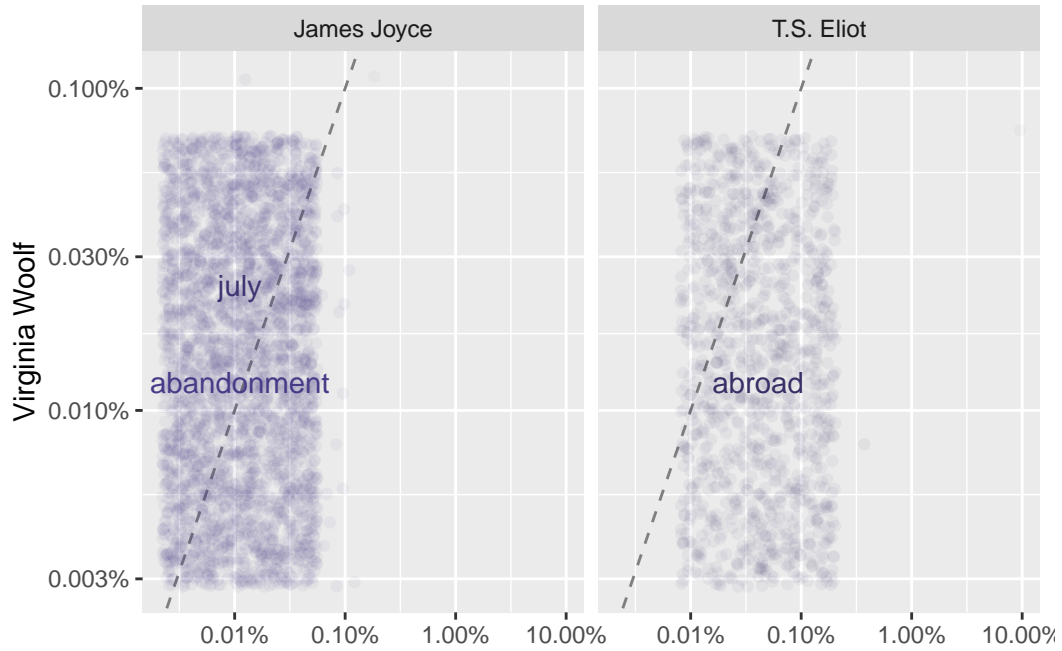


Figure 2: Comparative Analysis of Word Frequency in British Stream of Consciousness Authors

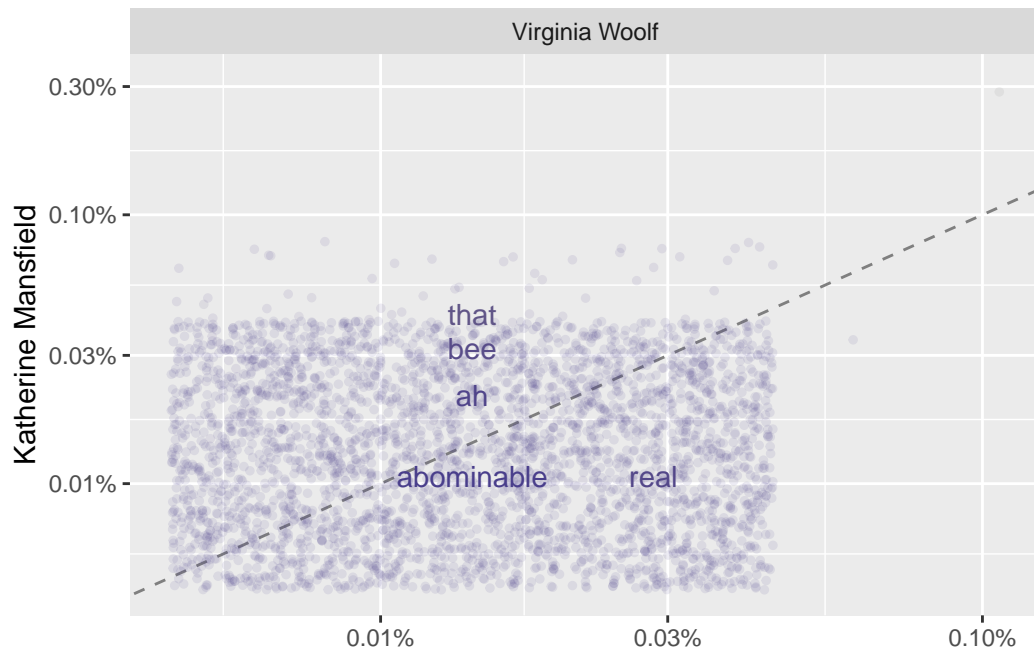


Figure 3: Comparative Analysis of Word Frequency in Female Stream of Consciousness Authors

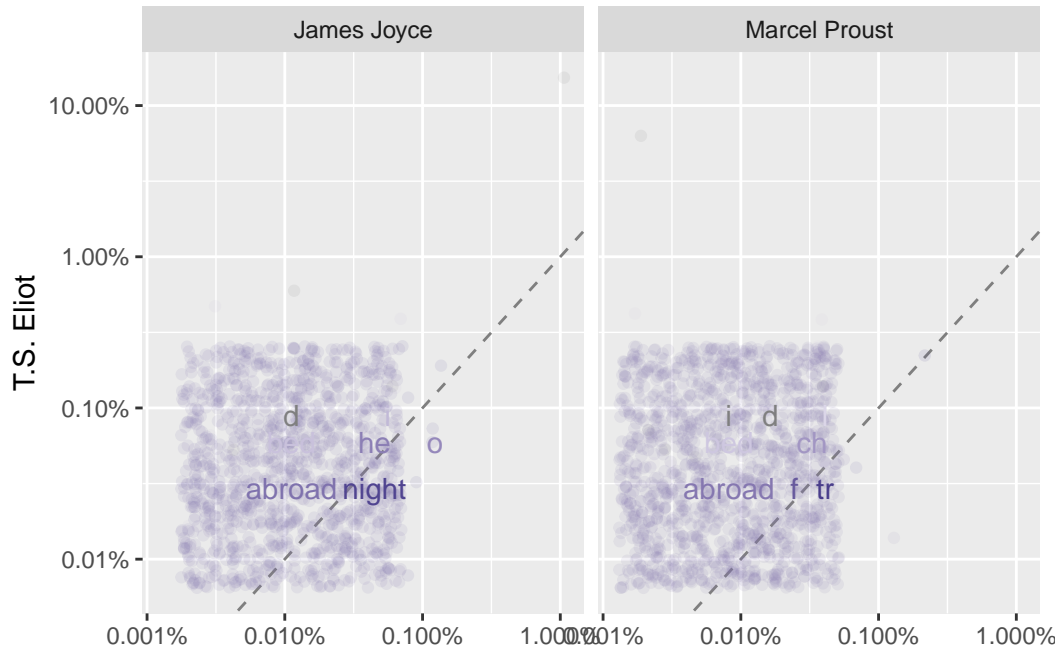


Figure 4: Comparative Analysis of Word Frequency in Male Stream of Consciousness Authors

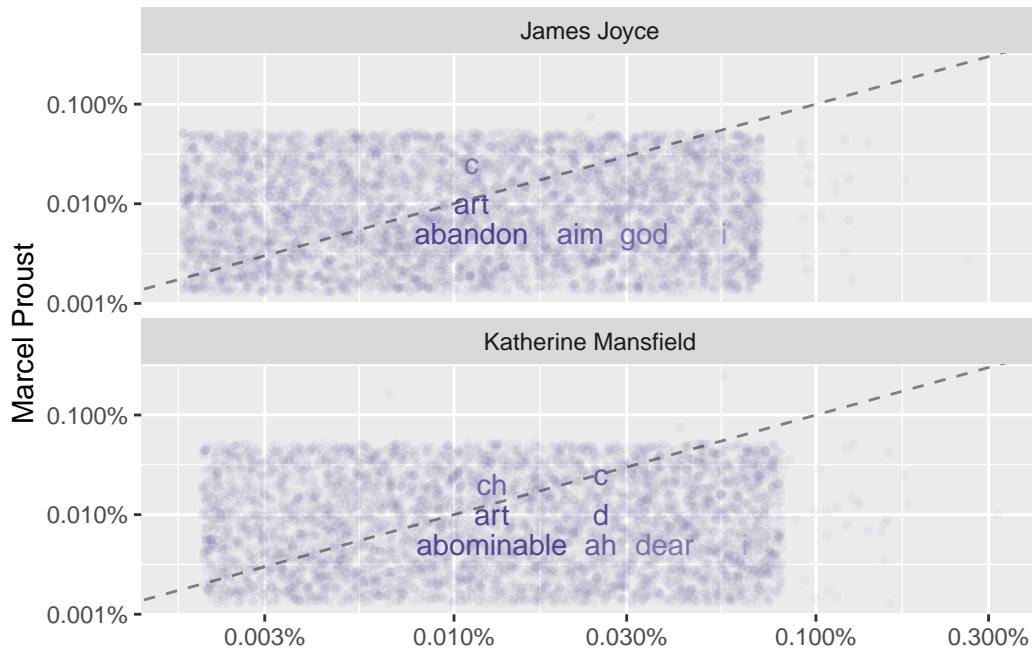


Figure 5: Comparative Analysis of Word Frequency in Transnational Stream of Consciousness Authors



(a) One Word

Figure 6: Visualizations of Word Frequency when Combining All Stream of Consciousness Novels

5.3 Schizophrenic and Disassociative Tendencies in Female Stream of Consciousness

5.4 Weaknesses

5.4.1 Lack of Thorough Word Cleaning

5.4.2 Limiting Literature Works and Publication Editions

5.4.3 Project Gutenberg's Focus on the Canon

5.5 Moving Forward and Next Steps

Table 6: Summary Statistics of Reasons for Police Strip Searches

Table 7: Summary Statistics of Items Found During Police Strip Searches

6 Appendix

6.1 Additional Data Details

6.1.1 Data Gathering

6.1.2 Data Cleaning

6.2 Model Details

6.3 Posterior predictive check

Examining how the model fits, and is affected
by, the data

6.4 Diagnostics

Checking the convergence of the MCMC algorithm

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