Evaluating the influence of the narrative techniques used in modernist literature on high school students' empathetic engagement when reading

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Abstract

This study evaluates the level of empathetic engagement of high school students when reading modernist literature, aiming to understand the effect of the genre's narrative techniques, notably the stream of consciousness technique, which is intrinsically related to the field of psychology. Previous research on engagement has primarily been directed toward fiction, with a limited number of studies focussing on the modernist genre. Concerning modernism specifically, there are scant empirical studies focusing on empathetic engagement, and high school students have not yet been a target audience in this body of knowledge. In this study, a questionnaire adapted from Busselle et al.'s narrative engagement scale for visual media produced quantitative data to measure the dimensions of empathetic engagement experienced (narrative understanding, narrative presence, cognitive and affective empathy or combined empathy, and distractions) when reading a selected excerpt of Virginia Woolf's *The Waves*. Preliminary findings had suggested varying responses, yet primarily indicated high empathetic engagement, a direct correlation between narrative understanding and combined empathy, and the narrative presence dimension being significant in evoking empathy. However, the results found no statistically significant difference in combined empathy, an inverse correlation between narrative understanding and combined empathy, and statistical insignificance of the narrative presence. Nonetheless, narrative understanding demonstrated relatively high normalized ratios, hence promising results in the reading comprehension of modernism, and this study ultimately underscores the potential for further research on the correlation between narrative presence and narrative understanding in regards to empathetic engagement.

Keywords

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Introduction

In 1978, Rosenblatt established the notion that reading is not an external activity, but rather, it relies on the individual (1). She presented a transactional theory of reading in which she affirmed that the transaction between the reader and the text is unique for every reader, for every reader is unique (1). Admittedly, this theory is now dated, yet its findings have not been refuted to date and remain unchallenged; reading is connected to an emotional process. While reader engagement has been studied before, each literary genre differs in its content and style, therefore differences in engagement must be present among genres, and some genres lack research. The modernist period is such an under-researched genre, which uses narrative techniques that are acutely different from its predecessors in the 19th century and before, and influenced much of the literature that has followed.

Literature review

Modernist writing style and its effect on reading comprehension

The modernist literary movement occurred in the first half of the twentieth century and is adorned with the names of Virginia Woolf, James Joyce, Katherine Mansfield; among others. In literary history, the divide between this era and the 19th century presents a sharp difference in writing styles. For youth, World War I created a loss of meaning and values, thus an urgent need to change something about a world out of their control, and this was a factor in the drastic change in literary style (2). Modern authors popularized the use of a particularly psychological literary technique: the stream of consciousness. At its core, the stream of consciousness was a theory in psychology developed by William James in 1890. He proposed that it

manifested in five parts in his seminal work; *The Principles of Psychology*: 1] "Every thought tends to be part of a personal consciousness. 2] Within each personal consciousness thought is always changing. 3] Within each personal consciousness thought is sensibly continuous. 4] It always appears to deal with objects independent of itself. 5] It is interested in some parts of these objects to the exclusion of others, and welcomes or rejects – chooses from among them in a word – all the while" (3).

In short, consciousness is not disjointed but rather something that flows. Modern authors attempted to convey this flowing consciousness in a way that most closely resembled the mind and to do so, they had to alter their narrative prose, which incited the adoption of this 'modernist' technique. James Edward Harker, when writing a dissertation on how modernist novels are written based on our own limitations of perceptual cognitive faculties, claimed that "the modernist novel proves to be the testing ground for exploring the limits of the mind and the limits of narrative style" (4) which supported the idea that the extent to which the narrative mirrors the inner workings of the mind renders the modernist genre valuable in studying empathetic engagement.

Authors such as Woolf and Joyce have commonly been studied to examine the effect of the stream of consciousness on a text. For instance, to bring a sense of fluidity and lack of spatio-temporal awareness to writing, Woolf used artistry techniques such as anaphora, homeoteleuton, asyndeton, polysyndeton, and parentheses (5). A study conducted on Joyce's *Portrait of an Artist as a Young Man* analyzed these techniques to understand the way they manipulated the

reader's emotional engagement, ultimately suggesting a heightened emotional reaction (6). However, another study disagreed, affirming that the writing techniques actually elicited a more "aesthetically distanced reading" (7). This latter study was one of the few experimental studies on the subject, and it took an excerpt from *The Fly* by Mansfield and a non-literary version of the same excerpt, hypothesizing that the original text would provoke more emotion than the modified version, through a quantitative and qualitative difference in passage markings while reading. Yet; upon testing; this hypothesis turned out to be false, contradicting the majority of sources. Aside from author-centered studies, reading comprehension has been the primary focus in the field. Grisot et al analyzed the difficulty experienced when reading Woolf's narratives, and it was found that "the presence of free indirect style and/or interior monologue increased the number of perspectives identified by readers, suggesting that this technique increased the texts' difficulty, laying a more solid ground for future investigation" (8). Grisot et al. findings were validated by Penner et al. who found that the presence and extent of difficulty could be a factor in engagement. Their study, drawing from research on psychology and pedagogy, concluded that for undergraduate students reading modernism, strain and focus on reading comprehension heightened analysis in the reader, and ultimately played a role in their engagement and memory in the long-term (9), therefore establishing the connection between reading comprehension and engagement.

Experimental studies on modernism are therefore centered around reading comprehension, and in regards to engagement, there has been little focus on empathy, and high school students have not been a direct audience thus far. Typical high school curricula, however, tend to comprise modernist novels. On the AP English Literature exam, for instance, a large amount of cited literary works are written by the 'Lost Generation' authors (10). Hence, understanding the effect of this genre on students assumes importance as they are frequently exposed to it in school settings. While there is an insufficient body of knowledge for both modernism and empathetic engagement for high school students, there is a broader and more varied range of sources on empathetic engagement when approaching the fiction genre as a whole.

Empathetic engagement when reading fiction

A common argument is that in literature, empathy is limited because typically, readers have information that characters do not, which inevitably obstructs empathetic engagement (11). This argument only serves to emphasize the mention of the stylistic peculiarities of modern literature in which the narrative solely follows the character's stream of thought, hence the reader would not be expected to have external information, and hence would truly read the story through the character's mind.

Many studies set a comprehensive understanding of empathy before proceeding further, and it is generally agreed upon that empathy has two main components: cognitive and affective empathy. Cognitive empathy is the ability to understand how the other is feeling whereas affective empathy is the ability to feel what the other is feeling (12). Complete empathy should include both

components. Affective empathy necessitates a degree of cognitive empathy because if one does not understand what the other feels when feeling it, it is considered to be emotional contagion, and isolated cognitive empathy can be considered to merely be perspective-taking (12). Thus far, existing knowledge on the topic can be divided primarily into empathetic engagement with fiction and content analysis of modernist literary techniques, with little research conducted on the actual empathetic effects of reading modernism.

Busselle et al. study: "Measuring Narrative Engagement"
While Busselle et al. study focuses on film and television, it is nonetheless closely related to the topic at hand. They aimed to develop a scale to measure narrative engagement and in the process, examined four main dimensions of experiential engagement in narrative, although this study only focuses on what is relevant for its question (i.e. empathy). Their study included the aforementioned concept of cognitive empathy, labeling it as cognitive perspective-taking (CP), affective empathy, labeling it as empathy (EP), narrative understanding (NU), and narrative presence (NP). NU relates to Grisot et al. research on the higher level of difficulty present when reading modernist literature, as well as to Penner's study on the correlation between difficulty and attentional focus, ultimately upholding the possibility that modernist texts would be a significant literary genre to study with regard to empathetic engagement. NP further supports this possibility, as Busselle et al. maintain that this dimension necessitates "flow" in the story, which occurs when the reader is fully immersed in the narrative, and in effect, this "flow" is a primary trait of modernism, as

exemplified by the stream of consciousness technique. However, inconsistency in characters can pull the audience away from the "flow" (13). Penner observed that modernist characters often contradicted themselves - as would real people - due to the importance of realism in the genre. This suggested that there was a chance that the flow could be interrupted. In short, Buselle et al. thoroughly explain the dimensions of narrative engagement, which comprise valuable points of interest when studying empathetic engagement specifically, and its scale could potentially be transposed from film to literature.

By transposing Busselle et al. scale for narrative engagement with visual media onto modernist texts, using the elements that relate to empathy specifically instead of narrative engagement as a whole, this paper will address the gaps in the body of knowledge; i.e., the lack of empirical research on empathetic engagement pertaining to modernism specifically and the insufficient data on high school students in this field of study.

Materials
Questionnaire
This experiment used Google Forms for the questionnaire and a .pdf for the excerpt (appendix), hence participants brought their own computers. Busselle et al. had the participants use pencil and paper; however, because their study investigated visual media, having two screens at once during the test-taking process would have indeed been inefficient, whereas in this study, using computers was the most practical and accessible. It would also not be expected to significantly affect the results since high

school students are accustomed to reading on a screen.

Excerpt Chosen

In Times New Roman font, 12pt size, 1.5 line spacing, the excerpt is approximately 6.5 pages long. It was taken from *The Waves* by Virginia Woolf, a novel known for its strong presence of the stream of consciousness and experimental writing style. The excerpt is set after the death of the main characters' friend, Percival, and follows the thoughts of Bernard and Rhoda. This excerpt was chosen since it is at a crucial point in the novel, as Percival's death is an event that brings great turmoil for each character, intensifying the emotions felt. It also provides insight for two different characters, rendering it more accessible for varying audiences, has a high amount of

literary devices present, and is easy to follow without full context, because the theme of aftermath of death is clear. The annotated excerpt with a count of literary devices can be found in the appendix, as can be found the demographics survey and the questionnaire used.

Participants

Sixty students from a small international French private high school in Los Angeles between the ages of 14 and 18 participated in this study and were tested separately based on their grade (see Table 1). The mean age of all of the participants was 15.87 years and the standard deviation was 1.26 years. They were recruited in various classrooms. Participation was voluntary.

Table 1. Participants' demographics

Attributes	9th grade	10th grade	11th grade	12th grade
Number	15	16	15	14
Gender	60% male 26.7% female 12.3% other	56.3% male 43.8% female	20% male 73.3% female 6.7% other	21.4% male 78.6% female
Best language spoken	66.7% English 13.3% French 6.7% both 13.3% other	62.5% English 25% both 12.5% other	80% English 20% both	35.7% English 21.4% French 42.9% both
Reading habits: how often one reads for leisure	73.4% sometimes 26.7% never	31.3% always 56.3% sometimes 12.5% never	26.7% always 60% sometimes 13.3% never	21.4% always 71.4% sometimes 7.1% never

Methods

Methods overview

The following experiment responded to the gap in Busselle et al. scale for measuring narrative engagement in visual media: "We have yet to explore its utility with written texts. All of the scale's items could be adapted for short stories, novels, or audio

plays by simply changing the reference in each item from 'program' or 'film' to 'novel' or 'story.' Replication and extension should be useful in providing empirical evidence of how audience members experience different types of narratives, in different media" (13). However, as the goal of this research was not to prove the scale's utility but rather to use

the scale's findings to answer another research question, statements were drawn from the scale and were then adapted then into a questionnaire, since the statements were already formed to find the desired reactions that would test engagement. In other words, the scale was used to support the validity of the questionnaire's statements. In this questionnaire, the answer to each statement was measured on a Likert scale with four points ranging from strongly disagree (=1) to strongly agree (=4), eliminating a midpoint, as midpoints can be "viewed by the respondents as a 'dumping ground' for unsure or non-applicable responses" (14), and for empathetic engagement, overthinking is unwanted as this experiment aims to measure an emotional feeling that must be as directly provoked as possible.

To answer whether or not modernist texts incite high empathetic engagement among high school students, this method generated quantitative data regarding the extent to which the reader responded to elements that should, if agreed or disagreed with depending on the statement, suggest high empathetic engagement. Quantitative data was most effective as it would provide in a concise manner what was needed to measure the level of empathetic engagement, whereas qualitative data would have not yielded testable and/or consistent information. This was also the type of data used by Busselle et al. Furthermore, before the questionnaire, participants completed a multiple choice assessment for demographic data, testing grade level, age, gender, best language spoken, and reading habits.

Design: Adapting a narrative engagement scale into an empathetic engagement questionnaire

Since Busselle et al. addressed narrative engagement in fiction, certain statements either had to be added or removed for the questionnaire to align to the research's goal. Since their topic was broader than the one of this study, elements unrelated to empathetic engagement were removed. Furthermore, Busselle et al. focussed on fiction, which is largely based on events, whereas this research focuses on the modernist genre, which is instead based on writing style. Therefore, certain statements from the questionnaire were removed for that reason. The added statements were created specifically for this study, such as those in the NU section, which were based on and reflected the content in the chosen excerpt. The only other statement created for this experiment was a preventive measure called external distraction. This was added in case an occurrence in the testing environment disrupted the experiment. Moreover, words such as "program" in the original questionnaire were changed to "excerpt", "during the program" into "while reading," etc.

Procedure

In a class, students were told a cover story in order to avoid potential bias, wherein, it was stated that they would be participating in a research project testing reader engagement, omitting any details on empathy. Papers containing a consent form alongside a blank space to provide emails were distributed, giving the students the choice whether or not they wished to participate in this study. Subsequently, a time was scheduled with the participants in order to conduct the experiment. During the scheduled meeting, an email was sent to each participant

containing the .pdf of the excerpt and a link to the Google Forms questionnaire, and the details of the experiment were written on the board. The details were as follows: "first, fill out the demographics questionnaire, then open the .pdf document and begin reading, after, the participants were to close the .pdf and could not look back to it before filling out the questionnaire." The maximum time for the experiment was approximately thirty minutes and any case of incompletion would not be counted in the data. The procedure was repeated four times; once for each grade. A total of 60 students from grades 9th through 12th volunteered to take part in the study. The method behind this research is replicable as it is based on a previous study and the changes made are explained throughout. Furthermore, the exact questionnaire and excerpt used for the experiment can be found in the appendix.

Hypothesis, statistical methods and data analysis

If the literary techniques present in modernist novels respond to the prerequisites of empathetic engagement, then it is not unreasonable to assume that modernist novels should provoke a high level of empathetic engagement. If the increase in focus on reading comprehension due to the increased difficulty of a text heightens analysis in the reader, then there should be a higher level of engagement and ultimately a direct correlation between narrative understanding and overall empathetic engagement. If modernism's main trait is indeed the "flow" component in its narrative, then the narrative presence should show up in the responses as a

significant dimension as well, in its power to evoke empathy.

A χ^2 test was performed for all the attributes (NU, NP, AC+CE and 'distract') across all the grades (9th through 12th). The expected outcome for a null hypothesis was that the number of responses (not the number of respondents) with "1's or 2's" was equal to the number of responses with "3" or "4" on the Likert scale. The level of significance was set at $\alpha = 0.05$.

In addition, the normalized ratio of the number of "3 and 4" responses to those of the "1 and 2" responses was used to determine which variables were most influential in affecting the combined empathy (CE+AE). A multivariate linear regression was performed using NU and NP as the independent variables and combined empathy as the dependent variable.

Results

Raw responses of each student can be found in the supplementary file. Collected data was first organized by both grade level and the various independent components as shown in Table 2. As seen from table 2, the number of "1and2" responses were greater than the number of "3and4" responses for the attributes of NP and (AE+CE) for all grades, while the reverse was true for the attributes of NU and Distract where the number of "3and4" responses > number of "1and2" responses. The implication was that NP and (AE+CE) were directly related, NU and (AE+CE) were inversely related and NU and NP were inversely related to one another.

Table 2. Collected data by grade level and empathetic engagement components

Attribute	9th grade		10th grade		11th grade		12th grade	
	1&2	3&4	1&2	3&4	1&2	3&4	1&2	3&4
NU (Narrative understanding)	31	74	35	77	32	73	34	64
NP (Narrative presence)	80	55	83	61	75	60	80	55
AE + CE (Combined empathy)	65	55	69	59	64	56	65	55
Distract	32	58	22	74	26	64	32	58

1&2 = the number of responses where the respondents choose either "1" or "2" on the Likert scale.

3&4 = the number of responses where the respondents chose either "3" or "4" on the Likert scale.

Table 3. Calculation of p value for (AE+CE) (as an example) using the χ^2 test

Grade	1&2	3&4	Row Total
9th grade	65	55	120
10th grade	69	59	128
11th grade	64	56	120
12th grade	65	55	120
Column Total	263	225	

$p > 0.99$, test statistic = 0.022, Critical value = 7.81, from Libreoffice® Calc

The p values of all the other attributes – calculated similar to the data presented in Table 3 - (NU, NP and Distract) were > 0.98, implying that there was no significant difference between the "1and2" versus the "3and4" responses, regardless of the grade the student was enrolled in.
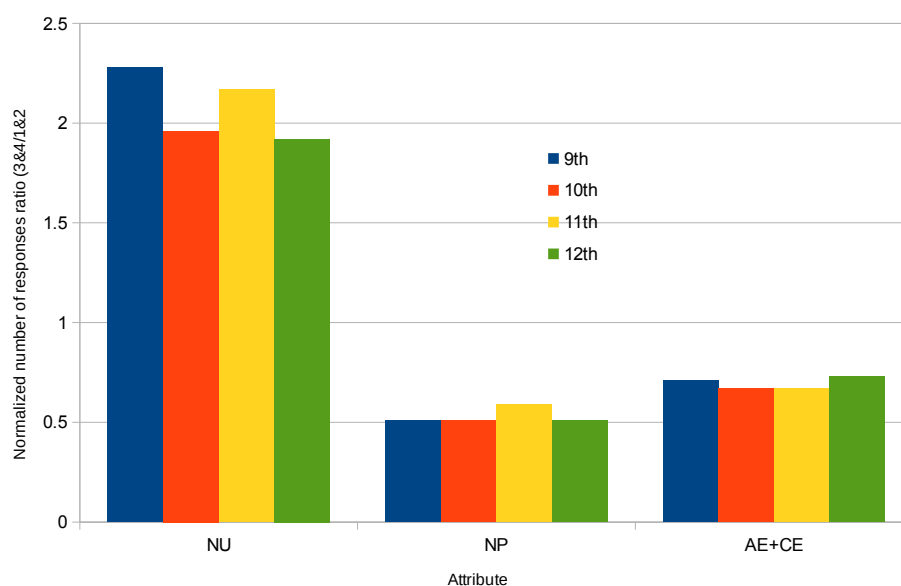
Figure 1. Bar chart representing the normalized ratio of (3and4) to (1and2) of NU, NP, and AE + CE for each grade.

As Figure 1 shows, the normalized ratio for NU was greater than 1 for all grades, implying that there were greater number of responses with "3and4" versus "1and2" for this category. For the NP and (AE+CE) categories, the normalized ratios were < 1 implying that there were a lesser number of responses with "3and4" versus "1and2" for these two categories regardless of the grade the student was enrolled in.

To determine which variables were most influential in their effect on combined empathy (i.e. CE+AE), a multivariate linear regression was performed using the normalized ratios of "3and4" to "1and2" responses of NU and NP as independent variables and the normalized ratio of "3and4" to "1and2" of combined empathy as the dependent variable (see Table 4 and the website https://www.statskingdom.com/410multi_linear_regression.html). The results found that 100% of the variance in combined empathy could be explained by a combination of the independent variables (NU, NP and Distract) as R^2= 1.0. No variable, by itself, exerted a significant effect on (CE+AE). No collinearity was detected among the variables since all the VIF values were < 2.5. No heteroskedasticity was detected since the White p test value > 0.45. The regression equation was $\hat{Y} = 1.03 - 0.056\,X1 - 0.227\,X2 - 0.039\,X3$, where X1, X2 and X3 were the normalized ratios of the "3and4" to "1and2" responses of the variables NU, NP and Distract respectively.

Table 4. Calculating the normalized ratios of responses of (AE+CE) for various grades

Grade	1&2	3&4	Ratio of 3&4 to 1&2	Normalized ratio
9th grade	65	55	0.85	0.71
10th grade	69	59	0.86	0.67
11th grade	64	56	0.88	0.73
12th grade	65	55	0.85	0.71

Discussion

The main hypothesis for this study was that there would be significant empathetic engagement when reading modernist literature for the attributes of modernism's notorious stream of consciousness, a concept initially developed in the field of psychology, seemed to correlate with the prerequisites of engagement. The evidence was found not to support this hypothesis since the p-values for the χ^2 test for all the variables were > 0.05. This meant that there was no significant empathetic engagement among the students – regardless of grade – when reading the particular excerpt of modernist literature.

Regarding narrative understanding, there was an inverse correlation between NU and AE + CE. This refutes the hypothesis that there would be a direct correlation as it refutes the pattern Penner's research implied: higher effort on comprehension → higher strain when reading → higher narrative understanding → higher engagement, opening the door to narrowing this down to empathetic engagement. However, as NU increased, empathetic engagement decreased; as evidenced from Table 2 and the regression equation from the multivariate analysis; meaning that the effort on comprehension and strain ensued that should incite NU did not contribute to empathetic engagement. Yet the

level of understanding, in effect, is not the sole determinant of empathetic engagement, as it does not consider additional factors. If a character depicts unlikeable traits, the reader with higher NU may have further reason to feel less combined empathy than the reader with lower NU. The study on *Portrait of an Artist as a Young Man,* while suggesting that modernist techniques would elicit a high emotional reaction, does not specify that this reaction necessarily corresponds to a positive feeling for the character, hence if it is a negative feeling, lower combined empathy is a logical result (6). Moreover, the majority of the published literature affirms that empathetic engagement naturally necessitates a certain degree of narrative understanding; however, this degree is unclear, and thus, the effects of too great of an understanding remains unaddressed. Nonetheless, NU's relatively high normalized ratios ("3and4" to "1and2" responses) throughout suggest that modernism is not too difficult for high school students, meaning that it remains accessible to them in an educational setting.

The effect of NP, by itself, on (AE+CE) was statistically insignificant, as evidenced from the multivariate regression analysis; thereby refuting the hypothesis. Furthermore, the correlation, however, between NP and AE + CE was direct, as seen from Table 2, since the decrease in AE+CE paralleled the decrease in NP. Such a direct correlation was however not reflected from the negative coefficient in the regression equation. In other words, the more one is immersed in the novel, the more the empathy experienced, which aligns with the existing body of knowledge. Yet this also implies that NP is inversely correlated to NU which raises a contradiction with the current understanding of the study, as NU should be directly

proportional to NP in the sense that immersion should only be possible with understanding, thus higher NU should lead to higher NP. To explain this, the level of distractions in the study is an insignificant independent variable ($p > 0.05$), as evidenced by the χ^2 test, and thus does not suffice. Rather, Busselle et al. note that inconsistency in characters, which is a form of unrealism, can detract from the "flow" of the narrative, hindering NP. In modernist work, characters are written to resemble reality to the extent that because humans are, in reality, inconsistent, the characters fall into unrealism. It can be speculated that, the more the readers understand the narrative, the more this inconsistency is apparent to them, and less narrative presence is then experienced.

Furthermore, empirical studies on empathetic engagement within narratives from the perspective of spatiotemporal framework commonly found that readers process the environment closest to the protagonist rather than the environment that is farther away, suggesting that readers experience the narrative based largely on the protagonist's spatiotemporal standpoint (11). Because *The Waves'* excerpt navigates from protagonist to protagonist, and there is an absence of concrete setting and timespan, the more the readers begin to understand the narrative, the more lost they eventually become in it as it is in perpetual, incoherent motion. Therefore, the greater the NU, the less NP, hence Kuzimičová, A., et al. observed "aesthetically distanced reading" actually seems to allow more so for higher narrative presence than engaging in full comprehension would. These results, however, emphasize that the link between NU and NP should still be further examined.

The correlations in Table 2 however are not reflected in the regression equation. This may be because the equation; while mathematically accurate; still implicitly converts ordinal data to continuous data and assigns a value of the intercept to maximize R^2. Since, the intercept in this context has no physical meaning, it is more logical to draw relational inferences from tabulated ordinal data while only model validity inferences can be drawn from the equation.

Concerning demographics, no correlations were observed regarding gender, reading habits, or language. Analysis should, however, remember to consider Rosenblatt's transactional theory of reading, which contends that the exchange between the reader and text relies primarily on the reader as no readers can be alike (1). Therefore, empathetic engagement cannot be completely reduced to the text itself but must also take the reader into account.

Implications
The study of literature is valuable in deepening our ability to understand the human psyche, as literature provides a gateway into the thoughts of others, into ideas that can aid individuals in their growth. The modernist literary movement is thus important for this very reason; it brings forth greater attention to the psychological element in literature. This study helps in obtaining greater insight into how modernism affects the human mind, especially that of adolescents' who are at a crucial developmental stage. Furthermore, as it was previously mentioned that modernist texts tend to be present in the high school curriculum, investigating the effects of these novels can influence educators in their selection of books. In the body of research,

this study adds the perspective of modernist literature into the field of empathetic engagement.

Limitations
It should be acknowledged that this study did not have predetermined statistical parameters; and rather relied on the assumption that the number of responses with "1and2" would not be significantly different from the number of responses with "3and4" if reading modernist literature did not elicit empathic engagement.

Furthermore, the study uses a 6.5 pages long excerpt, and with the short attention span of teenagers, the length of the excerpt could have posed a limitation as many may have entered the experiment with preconceived apprehension regarding reading such a long text, creating an unwillingness to carry out the task, especially with the lack of incentive involved; participants may have skimmed through the text or sped through the questionnaire. However, the time it would take the readers and what that would imply was not a priority, as there was no possibility of shortening the excerpt. Woolf wrote the novel in such a way for a reason, thus to trim it would be to dismiss her style, defeating the purpose of the experiment. The text material raises another limitation. *The Waves* is regarded as one of Woolf's most innovative works as it uses the stream of consciousness to an extreme, making it more of a challenge compared to other modernist texts. Therefore, while this excerpt works well to study the effects of stream of consciousness, future research should also consider using less extreme excerpts that will be more relevant in a high school setting.

Moreover, the demographics of the participants on language and reading habits

could be debatable as some may indulge in wishful thinking. Another limitation would also be the slightly uneven number of participants per grade, rendering some percentages not fully comparable with each other. Additionally, the environment the participants were in during the experiment could have had a variety of consequences, especially because each grade was, by necessity, in a slightly different environment. The small sample size is also a limitation. The results cannot be generalized as the sixty participants were all from the same place. Future research that has a larger sample size and variety would aid in validating these results and it would open the door toward further points of discussion on demographics.

Perspectives

To address these limitations, future research should be conducted on a larger sample size with different modernist excerpts. This would validate this study's findings by observing whether or not there is a consistent pattern in empathetic engagement for different texts, not solely the one selected for this paper, and if there are any differences with a larger sample size, creating the opportunity to experiment with different demographics. It would also be beneficial to conduct research on narrative presence specifically in order to enhance our understanding of its relevance in regards to empathetic engagement. As would it be beneficial to continue examining reading comprehension and difficulty of modernist texts to further understand its effect on empathetic engagement, notably whether or not easier to understand modernist texts evoke more or less empathy, and whether

there is a point at which narrative understanding can potentially hinder empathetic engagement. Furthermore, the correlation between narrative presence and narrative understanding should also be subject of future investigation. Future research could also continue adding to the body of knowledge by investigating the effects of the reading environment on engagement, as well as considering the long term effects of reading modernism.

Conclusion

This study examined the extent to which the literary techniques found in modernist novels incite empathetic engagement among high school students by having the students read an excerpt from Virginia Woolf's *The Waves* and promptly complete a questionnaire adapted from a narrative engagement scale. The results found that there was no statistically significant difference in combined empathy, refuting the hypothesis. Narrative understanding and combined empathy demonstrated an inverse correlation. Narrative presence was directly correlated with combined empathy. These findings add to the current body of knowledge on empathy in fiction by narrowing down existing research to the modernist genre. This paper ultimately brings forth the necessity for further research on modernism to understand the effect it can have on high school students who are beginning to be exposed to a variety of vastly different writing styles.

Supplementary file

Contains the raw data and responses for the various attributes immediately after reading the excerpt.

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Appendices

I.   *Appendix I: Annotated excerpt of The Waves*
N.B: The annotation and count of literary devices are naturally susceptible to human error.

Key: asyndeton, polysyndeton*, homeoteleuton, repetition*, usage of the second person singular personal pronoun*, parentheses
* For polysyndeton, the conjunction will be underlined.
* Although anaphora is frequently mentioned as a pertinent literary device, it will be labeled as a repetition as repetition is a broader term.
* Not unique to the stream of consciousness, yet usage of this creates interaction between the text and the reader and therefore should be noted.

"Such is the incomprehensible combination," said Bernard, "such is the complexity of things, that as I descend the staircase I do not know which is sorrow, which joy. My son is born; Percival is dead. I am upheld by pillars, shored up on either side by stark emotions; but which is sorrow, which is joy? I ask, and do not know, only that I need silence, and to be alone and to go out, and to save one hour to consider what has happened to my world, what death has done to my world.

"This then is the world that Percival sees no longer. Let me look. The butcher delivers meat next door; two old men stumble along the pavement; sparrows alight. The machine then works; I note the rhythm, the throb, but as a thing in which I have no part, since he sees it no longer. (He lies pale and bandaged in some room.) Now then is my chance to find out what is of great importance, and I must be careful, and tell no lies. About him my feeling was: he sat there in the centre. Now I go to that spot no longer. The place is empty.

"Oh yes, I can assure you, men in felt-hats and women carrying baskets—you have lost something that would have been very valuable to you. You have lost a leader, whom you would have followed; and one of you has lost happiness and children. He is dead who would

have given you that. He lies on a camp-bed, bandaged, in some hot Indian hospital while coolies squatted on the floor agitate those fans—I forget how they call them. But this is important; 'You are well out of it,' I said, while the doves descended over the roofs and my son was born, as if it were a fact. I remember, as a boy, his curious air of detachment. And I go on to say (my eyes fill with tears and then are dry), 'But this is better than one had dared to hope.' I say, addressing what is abstract, facing me eyeless at the end of the avenue, in the sky, 'Is this the utmost you can do?' 'Then we have triumphed. You have done your utmost,' I say, addressing that blank and brutal face (for he was twenty-five and should have lived to be eighty) without avail. I am not going to lie down and weep away a life of care. (An entry to be made in my pocket-book; contempt for those who inflict meaningless death.) Further, this is important; that I should be able to place him in trifling and ridiculous situations, so that he may not feel himself absurd, perched on a great horse. I must be able to say, 'Percival, a ridiculous name.' At the same time let me tell you, men and women, hurrying to the tube station, you would have had to respect him. You would have had to form up and follow behind him. How strange to oar one's way through crowds seeing life through hollow eyes, burning eyes.

"Yet already signals begin, beckonings, attempts to lure me back. Curiosity is knocked out for only a short time. One cannot live outside the machine for more perhaps than half an hour. Bodies, I note, already begin to look ordinary; but what is behind them differs—the perspective. Behind that newspaper placard is the hospital; the long room with black men pulling ropes; and then they bury him. Yet since it says a famous actress has been divorced, I ask instantly Which? Yet I cannot take out my penny; I cannot buy a paper; I cannot suffer interruption yet.

"I ask, if I shall never see you again and fix my eyes on that solidity, what form will our communication take? You have gone across the court, further and further, drawing finer and finer the thread between us. But you exist somewhere. Something of you remains. A judge. That is, if I discover a new vein in myself I shall submit it to you privately. I shall ask, 'What is your verdict?' You shall remain the arbiter. But for how long? Things will become too difficult to explain: there will be new things; already my son. I am now at the zenith of an experience. It will decline. Already I no longer cry with conviction, 'What luck!' Exaltation, the flight of doves descending, is over. Chaos, detail, return. I am no longer amazed by names written over shop-windows. I do not feel Why hurry? Why catch trains? The sequence returns; one thing leads to another—the usual order.

"Yes, but I still resent the usual order. I will not let myself be made yet to accept the sequence of things. I will walk; I will not change the rhythm of my mind by stopping, by looking; I will walk. I will go up these steps into the gallery and submit myself to the influence of minds like mine outside the sequence. There is little time left to answer the question; my powers flag; I become torpid. Here are pictures. Here are cold madonnas among their pillars. Let them lay to rest the incessant activity of the mind's eye, the bandaged head, the men with ropes, so that I may find something unvisual beneath. Here are gardens; and Venus among her flowers; here are saints and blue madonnas. Mercifully these pictures make no reference; they do not nudge; they do not point. Thus they expand my consciousness of

him and bring him back to me differently. I remember his beauty. 'Look, where he comes,' I said.

"Lines and colours almost persuade me that I too can be heroic, I, who make phrases so easily, am so soon seduced, love what comes next, and cannot clench my fist, but vacillate weakly making phrases according to my circumstances. Now, through my own infirmity I recover what he was to me: my opposite. Being naturally truthful, he did not see the point of these exaggerations, and was borne on by a natural sense of the fitting, was indeed a great master of the art of living so that he seems to have lived long, and to have spread calm round him, indifference one might almost say, certainly to his own advancement, save that he had also great compassion. A child playing—a summer evening—doors will open and shut, will keep opening and shutting, through which I see sights that make me weep. For they cannot be imparted. Hence our loneliness; hence our desolation. I turn to that spot in my mind and find it empty. My own infirmities oppress me. There is no longer him to oppose them.

"Behold then, the blue madonna streaked with tears. This is my funeral service. We have no ceremonies, only private dirges and no conclusions, only violent sensations, each separate. Nothing that has been said meets our case. We sit in the Italian room at the National Gallery picking up fragments. I doubt that Titian ever felt this rat gnaw. Painters live lives of methodical absorption, adding stroke to stroke. They are not like poets—scapegoats; they are not chained to the rock. Hence the silence, the sublimity. Yet that crimson must have burnt in Titian's gizzard. No doubt he rose with the great arms holding the cornucopia, and fell, in that descent. But the silence weighs on me—the perpetual solicitation of the eye. The pressure is intermittent and muffled. I distinguish too little and too vaguely. The bell is pressed and I do not ring or give out irrelevant clamours all jangled. I am titillated inordinately by some splendour; the ruffled crimson against the green lining; the march of pillars; the orange light behind the black, pricked ears of the olive trees. Arrows of sensation strike from my spine, but without order.

"Yet something is added to my interpretation. Something lies deeply buried. For one moment I thought to grasp it. But bury it, bury it; let it breed, hidden in the depths of my mind some day to fructify. After a long lifetime, loosely, in a moment of revelation, I may lay hands on it, but now the idea breaks in my hand. Ideas break a thousand times for once that they globe themselves entire. They break: they fall over me. 'Line and colours they survive, therefore . . .'

"I am yawning. I am glutted with sensations. I am exhausted with the strain and the long, long time—twenty-five minutes, half an hour—that I have held myself alone outside the machine. I grow numb; I grow stiff. How shall I break up this numbness which discredits my sympathetic heart? There are others suffering—multitudes of people suffering. Neville suffers. He loved Percival. But I can no longer endure extremities; I want someone with whom to laugh, with whom to yawn, with whom to remember how he scratched his head; someone he was at ease with and liked (not Susan, whom he loved but Jinny rather). In her room also I could do penance. I could ask, Did he tell you how I refused him when he asked me to go to Hampton Court that day? Those are the thoughts that will wake me leaping in anguish in the middle of the night—the crimes for which one would do penance in all the markets of the world bareheaded; that one did not go to Hampton Court that day.

"But now I want life round me, and books and little ornaments, and the usual sounds of tradesmen calling on which to pillow my head after this exhaustion, and shut my eyes after this revelation. I will go straight then down the stairs, and hail the first taxi and drive to Jinny."

"There is the puddle," said Rhoda, "and I cannot cross it. I hear the rush of the great grindstone within an inch of my head. Its wind roars in my face. All palpable forms of life have failed me. Unless I can stretch and touch something hard, I shall be blown down the eternal corridors for ever. What then can I touch? What brick, what stone? and so draw myself across the enormous gulf into my body safely?

"Now the shadow has fallen and the purple light slants downwards. The figure that was robed in beauty is now clothed in ruin. The figure that stood in the grove where the steep-backed hills come down falls in ruin, as I told them when they said they loved his voice on the stair, and his old shoes and moments of being together.

"Now I will walk down Oxford Street envisaging a world rent by lightning; I will look at oaks cracked asunder and red where the flowering branch has fallen. I will go to Oxford Street and buy stockings for a party. I will do the usual things under the lightning flash. On the bare ground I will pick violets and bind them together and offer them to Percival, something given him by me. Look now at what Percival has given me. Look at the street now that Percival is dead. The houses are lightly founded to be puffed over by a breath of air. Reckless and random the cars race and roar and hunt us to death like bloodhounds. I am alone in a hostile world. The human face is hideous. This is to my liking. I want publicity and violence and to be dashed like a stone on the rocks. I like factory chimneys and cranes and lorries. I like the passing of face and face and face, deformed, indifferent. I am sick of prettiness; I am sick of privacy. I ride rough waters and shall sink with no one to save me.

"Percival, by his death, has made me this present, has revealed this terror, has left me to undergo this humiliation—faces and faces, served out like soup-plates by scullions; coarse, greedy, casual; looking in at shop-windows with pendent parcels; ogling, brushing, destroying everything, leaving even our love impure, touched now by their dirty fingers.

"Here is the shop where they sell stockings. And I could believe that beauty is once more set flowing. Its whisper comes down these aisles, through these laces, breathing among baskets of coloured ribbons. There are then warm hollows grooved in the heart of the uproar; alcoves of silence where we can shelter under the wing of beauty from truth which I desire. Pain is suspended as a girl silently slides open a drawer. And then, she speaks; her voice wakes me. I shoot to the bottom among the weeds and see envy, jealousy, hatred and spite scuttle like crabs over the sand as she speaks. These are our companions. I will pay my bill and take my parcel.

"This is Oxford Street. Here are hate, jealousy, hurry, and indifference frothed into the wild semblance of life. These are our companions. Consider the friends with whom we sit and eat. I think of Louis, reading the sporting column of an evening newspaper, afraid of ridicule; a snob. He says, looking at the people passing, he will shepherd us if we will follow. If we submit he will reduce us to order. Thus he will smooth out the death of Percival to his satisfaction, looking fixedly over the cruet, past the houses at the sky. Bernard, meanwhile, flops red-eyed into some arm-chair. He will have out his notebook; under D, he will enter

'Phrases to be used on the deaths of friends.' Jinny, pirouetting across the room, will perch on the arm of his chair and ask, 'Did he love me?' 'More than he loved Susan?' Susan, engaged to her farmer in the country, will stand for a second with the telegram before her, holding a plate; and then, with a kick of her heel, slam to the oven door. Neville, after staring at the window through his tears will see through his tears, and ask, 'Who passes the window?'—'What lovely boy?' This is my tribute to Percival; withered violets, blackened violets.

"Where shall I go then? To some museum, where they keep rings under glass cases, where there are cabinets, and the dresses that queens have worn? Or shall I go to Hampton Court and look at the red walls and courtyards and the seemliness of herded yew trees making black pyramids symmetrically on the grass among flowers? There shall I recover beauty, and impose order upon my raked, my dishevelled soul? But what can one make in loneliness? Alone I should stand on the empty grass and say, Rooks fly; somebody passes with a bag; there is a gardener with a wheelbarrow. I should stand in a queue and smell sweat, and scent as horrible as sweat; and be hung with other people like a joint of meat among other joints of meat.

"Here is a hall where one pays money and goes in, where one hears music among somnolent people who have come here after lunch on a hot afternoon. We have eaten beef and pudding enough to live for a week without tasting food. Therefore we cluster like maggots on the back of something that will carry us on. Decorous, portly—we have white hair waved under our hats; slim shoes; little bags; clean-shaven cheeks; here and there a military moustache; not a speck of dust has been allowed to settle anywhere on our broadcloth. Swaying and opening programmes, with a few words of greeting to friends, we settle down, like walruses stranded on rocks, like heavy bodies incapable of waddling to the sea, hoping for a wave to lift us, but we are too heavy, and too much dry shingle lies between us and the sea. We lie gorged with food, torpid in the heat. Then, swollen but contained in slippery satin, the sea-green woman comes to our rescue. She sucks in her lips, assumes an air of intensity, inflates herself and hurls herself precisely at the right moment as if she saw an apple and her voice was the arrow into the note, 'Ah!'

"An axe has split a tree to the core; the core is warm; sound quivers within the bark. 'Ah!' cried a woman to her lover, leaning from her window in Venice. 'Ah, ah!' she cried, and again she cries 'Ah!' She has provided us with a cry. But only a cry. And what is a cry? Then the beetle-shaped men come with their violins; wait; count; nod; down come their bows. And there is ripple and laughter like the dance of olive trees and their myriad-tongued grey leaves when a seafarer, biting a twig between his lips where the many-backed steep hills come down, leaps on shore.

"'Like' and 'like' and 'like'— but what is the thing that lies beneath the semblance of the thing? Now that lightning has gashed the tree and the flowering branch has fallen and Percival, by his death, has made me this gift, let me see the thing. There is a square; there is an oblong. The players take the square and place it upon the oblong. They place it very accurately; they make a perfect dwelling-place. Very little is left outside. The structure is now visible; what is inchoate is here stated; we are not so various or so mean; we have made oblongs and stood them upon squares. This is our triumph; this is our consolation.

"The sweetness of this content overflowing runs down the walls of my mind, and liberates understanding. Wander no more, I say; this is the end. The oblong has been set upon the square; the spiral is on top. We have been hauled over the shingle, down to the sea. The players come again. But they are mopping their faces. They are no longer so spruce or so debonair. I will go. I will set aside this afternoon. I will make a pilgrimage. I will go to Greenwich. I will fling myself fearlessly into trams, into omnibuses. As we lurch down Regent Street, and I am flung upon this woman, upon this man, I am not injured, I am not outraged by the collision. A square stands upon an oblong. Here are mean streets where chaffering goes on in street markets, and every sort of iron rod, bolt and screw is laid out, and people swarm off the pavement, pinching raw meat with thick fingers. The structure is visible. We have made a dwelling-place.

"These then are the flowers that grow among the rough grasses of the field which the cows trample, wind-bitten, almost deformed, without fruit or blossom. These are what I bring, torn up by the roots from the pavement of Oxford Street, my penny bunch, my penny bunch of violets. Now from the window of the tram I see masts among chimneys; there is the river; there are ships that sail to India. I will walk by the river. I will pace this embankment, where an old man reads a newspaper in a glass shelter. I will pace this terrace and watch the ships bowling down the tide. A woman walks on deck, with a dog barking round her. Her skirts are blown; her hair is blown; they are going out to sea; they are leaving us; they are vanishing this summer evening. Now I will relinquish; now I will let loose. Now I will at last free the checked, the jerked-back desire to be spent, to be consumed. We will gallop together over desert hills where the swallow dips her wings in dark pools and the pillars stand entire. Into the wave that dashes upon the shore, into the wave that flings its white foam to the uttermost corners of the earth I throw my violets, my offering to Percival."

- Total number of literary devices noted: 89
  - Asyndeton: 25; polysyndeton: 8; homeoteleuton: 8; repetition: 34; second person singular: 9; parentheses: 5

II. Appendix II: Tests

1. *Demographics*

<u>Gender</u>
Male
Female
Other/Rather not say

<u>Grade</u>
9th/Troisième
10th/Seconde
11th/Première

12th/Terminale

<u>Age</u>
13
14
15
16
17
18

<u>Language spoken best</u>
English
French
Both/same
Other

<u>Reading habits</u>
I never read for leisure
I only sometimes read
I read all the time

2. *Questionnaire*

<u>Narrative understanding</u>
(C = comprehension; I = interpretation; F = focus, EC = ease of cognitive access)
C1: Bernard is an aspiring author.
C2: Percival was loved by Bernard, Rhoda, and the rest of the characters mentioned (Neville, Jinny, etc).
I1: Bernard admired Percival greatly.
C3: Rhoda still feels that she has companionship despite Percival's death. (--)*
I2: Rhoda has the most intense reaction to his death.
F1: The more I read, the more effort it took to focus.
EC1: I had a hard time recognizing the thread of the story. (--) (Busselle, Rick et al qtd. Appel et al., 2002).*

<u>Narrative presence</u>
(LT = loss of time; LS = loss of self; NP = narrative presence)
LT1: The excerpt seemed to drag. (--) (Busselle, Rick et al).
LS1: At times while reading, I completely forgot that I was in the middle of an experiment. (Busselle, Rick et al).
LT2: After having finished reading, I was surprised that it was over so quickly. (Busselle, Rick et al).

LS2: I forgot my own problems and concerns while reading. (Busselle, Rick et al).

LS3: While reading, I found myself thinking about what I had done before the experiment or what I would do after it. (--) (Busselle, Rick et al).

NP1: At times, the story world was closer to me than the real world. (Busselle, Rick et al adapted from Kim & Biocca, 1997).

NP2: My attention was focused more on my surroundings than on the excerpt. (--) (Busselle, Rick et al).

NP4: While reading, my body was in the room, but my mind was inside the world created by the story. (Busselle, Rick et al adapted from Kim & Biocca, 1997).

NP3: The excerpt created a new world, and then that world suddenly disappeared when I finished reading. (Busselle, Rick et al adapted from Kim & Biocca, 1997).

Affective empathy

(EP = empathy)*

EP1: At key moments, I felt I knew exactly what the characters were going through emotionally. (Busselle, Rick adapted from Cohen, 2001).

EP2: At important moments, I could feel the emotions the characters felt. (Busselle, Rick adapted from Cohen, 2001).

EP3: I never really shared the emotions of the characters. (--) (Busselle, Rick et al).

EP4: The story affected me emotionally. (Busselle, Rick et al qtd. Green & Brock, 2000).

Cognitive empathy

(CP = cognitive perspective-taking)*

CP1: I could understand why the characters felt the way they felt. (Busselle, Rick et al).

CP2: My understanding of the characters is unclear. (--) (Busselle, Rick et al adapted from Cohen, 2001).

CP3: It was difficult to understand why the characters reacted to situations as they did. (---) (Busselle, Rick et al).

CP4: I could easily imagine myself in the situation of some of the characters. (Busselle, Rick et al adapted from Cohen, 2001).

Internal and external distractions

(D = internal distraction; ED = external distraction; NR = narrative realism)

D1: While reading, I found myself thinking about other things. (--) (Busselle, Rick et al qtd. Appel et al., 2002).

D2: I had a hard time keeping my mind on the excerpt. (--) (Busselle, Rick et al).

ED1: Something unrelated to the excerpt and questionnaire occurred in the room that made me significantly lose focus.

NR1: I understood why the characters reacted a certain way in regards to each event.

NR2: At some points in the story, it was not quite clear why something happened. (--) (Busselle, Rick et al).

NR3: At points, I had a hard time making sense of what was going on in the excerpt. (--) (Busselle, Rick et al).

* (--) = Reverse coded statements
* Ease of cognitive access (EC) = the feeling that it is easy to maintain focus on the story in order to then have any NP in the first place.
* Empathy (EP) = affective empathy
* Cognitive perspective-taking (CP) = cognitive empathy