

Corpus Based Analysis of Literary Works of A Thousand Splendid Suns

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ABSTRACT

In recent years, many scholars at home and abroad have applied corpus research methods to the field of literature and used corpus retrieval software to analyze literary texts. This paper aims to explore the application of corpus retrieval software WordSmith Tool 8.0 and AntConc in literary discourse analysis. WordSmith Tools is a software package primarily for linguists, in particular for work in the field of corpus linguistics. It is a collection of modules for searching patterns in a language. The software handles many languages. AntConc is a program for analysing electronic texts (that is, corpus linguistics) in order to find and reveal patterns in language. It was created by Laurence Anthony of Waseda University. The target literary work is *A Thousand Splendid Suns*, a 2007 novel by Afghan-American author Khaled Hosseini. The story is set in the early 1970s when people in Afghanistan suffer from wars and is mainly about the lives of two heroines. Mariam, an illegitimate teenager from Herat, is forced to marry a shoemaker from Kabul after a family tragedy. Laila, born a generation later, lives a relatively privileged life, but her life intersects with Mariam's when a similar tragedy forces her to accept a marriage proposal from Mariam's husband. After they start to live under the same roof, their relationship goes through different stages, and in the end, they become the support for each other. The results of the analysis contains three aspects. One is that the lexical flow of the novel is medium. Another is the characters and surroundings of the two heroines. The third one is the way the author sets the plot to express the main concept of the novel.

Keywords: *Corpus, Thousand Splendid Suns, Writing characteristics, Literary text*

1. INTRODUCTION

Corpus and corpus linguistics has developed rapidly in the world over the past decades. Contemporary corpus linguistics puts the practical application of language in the primary position. Driven by the real language data, it can find and analyze the information inherent in language. Therefore, it is widely used in various fields related to language. Former research is a bold exploration, which can bring great enlightenment to literary researchers. However, we also see that their research scope is relatively narrow, limited to the use of simple word frequency statistics and keyword search to analyze the text. This paper uses corpus retrieval software such as WordSmith Tool and Antconc to analyze the basic story line and important contents of the works based on scientific data. "The corpus contains a large amount of relevant information and is equipped with different retrieval means, which can study the linguistic features and combinations of various texts, so as to analyze the

textual or stylistic features of the constructed texts"[1]. Using WordSmith Tool's wordlist and AntConc's KWIC and Plot, this paper analyzes the text features, main contents, characterization and writing intention of the novel, so that readers can see the unique advantages and development potential of corpus method in this research field.

2. RESEARCH DESIGN

To collect statistics on the basic information about the works, use the Wordsmith software's wordlist tool. The main statistical items of the thesaurus include tokens, types, type / token ratio (TTR), standardized TTR, mean word length and sentences[2]. The following statistics are obtained through the analysis of works. The number of tokens and types in "*A Thousand Splendid Suns*" is 105957 and 11114. The TTR is 11.1%, which is less than the standard ratio, indicating that the vocabulary flow of the work is not high.

N	text file	file size	tokens (running words) in text	tokens used for word list	sum of entries	types (distinct words)	type/token ratio (TTR)	standardised TTR	STTR std. dev.	STTR basis	mean wordlength (in)	word sen...ces	mean (in words)	
	Overall	1,362,548	105,957	105,540	0	11,114	10.53%	46.90%	52.27	1,000	4.31	2.08	9,091	11.61
1	A_Thou...(1-50	252,204	19,526	19,415	0	3,757	19.35%	45.54%	50.36	1,000	4.27	2.05	1,618	12.00
2	A_Thou...1-150	292,954	22,962	22,891	0	4,541	19.84%	47.80%	48.12	1,000	4.31	2.10	2,156	10.62
3	A_Thou...1-200	288,398	22,454	22,369	0	4,416	19.74%	47.70%	48.50	1,000	4.34	2.08	1,899	11.78
4	A_Thou...1-250	264,928	20,667	20,596	0	4,291	20.83%	45.99%	51.08	1,000	4.28	2.08	1,713	12.02
5	A_Thous...51-100	264,064	20,348	20,269	0	4,104	20.25%	47.24%	49.07	1,000	4.33	2.07	1,705	11.89

Figure 1: Text Statistics

The average word length is 4.13, indicating that the words used in the works are mostly common words. According to the above data analysis, the whole work is easy to understand[3]

3. ANALYSIS

3.1 Subject word analysis

3.1.1 Nouns and pronouns.

In “*A Thousand Splendid Suns*”, the two most frequently used theme words are Laila and Mariam, which represent the main heroines of the story[3]. Other keywords are male character names Rasheed and Tariq. It is worth noting that compared with people's names, others with higher frequency are mostly personal pronouns, such as ‘he’, ‘his’, ‘him’. It can be inferred that the number of male characters in the story may be more than two, and it can also be found that men are also an important part of the story. Because the frequency of female personal pronouns ‘her’ and ‘she’ is higher than that of male personal pronouns, it can be inferred that the story is mainly narrated from the perspective of women, or the author takes women as the protagonist. However, due to the high frequency of ‘I’ and ‘me’, the author mostly narrates from a female perspective. In addition, ‘they’ and ‘all’ appear frequently as well, which indicates the experience of the two characters. They are often excluded from the group, and their lives are often influenced by others. It is also worth mentioning that the nouns with higher frequency are ‘Mammy’, ‘mam’, ‘girl’, ‘Nana’, ‘children’ and ‘women’, which reveals that the novel contains a review of the characters' lives from childhood to adulthood. The nouns ‘house’ and ‘home’ reflect the scenes where most of the stories take place.

3.1.2 Verbs.

In “*A Thousand Splendid Suns*”, the verbs with high frequency and importance are: ‘said’, ‘say’, ‘thought’, ‘looked’. The author focuses on the description of character language, psychology and action.

3.1.3 Description of Appearance and Scene Indicator.

It is noteworthy that the words ‘hands’, ‘voice’, ‘face’ and ‘lips’ reflect the author's detailed description of the characters. There are also some words, such as ‘street’, ‘window’, ‘door’, ‘nights’ and ‘days’, which reflect the scene of the story. According to the frequency of these words, it can be inferred that most of them play a role in promoting the mainline. Based on the previous analysis of the house, the storyline should take place in this scene. In addition to assuming the scene of the story, these words can also help analyze the characters. Since there are fewer words expressing emotion in the thesaurus and more words involving various parts of the body, such as ‘belly’, it can be inferred that the author intends to map the character's psychology through the response to the character's body. At the same time, the author also strengthens the readers' common-sense experience through a series of detailed descriptions. In addition, the keywords ‘Afghanistan’ and ‘war’ reflect the background of the story. In this context, it is reasonable for the characters to bury their feelings.

3.2 Keyword analysis

KWIC means keywords in context. Entering the obtained subject word can get the phrases and sentences of the word, which is helpful for further analysis of the work. Search and analyze some subject words with the help of KWIC under Antconc[4].

Left Context	Hit	Right Context
What will happen to your children if you' re caught? "	Laila' s eyes brimming, stinging. " Who will take care of	
long hal- lway. He works the lock, lets her in.	Laila' s eyes find the TV in the corner. They	
the green veil that the mullah draped over their heads,	Laila' s eyes met Tariq' s. There were no tears,	
girl looks up. Puts down the doll. Smiles. Laila jo?	Laila' s eyes snap open. She gasps, and her body	
doctor said, " Take heart, little sister. " She bent over Laila.	Laila' s eyes snapped open. Then her mouth opened. She	
saw Aziza flung onto the bed. He let go of	Laila' s hair, and she felt the toe of his	
this despondent country altogether, Mariam said, running her hands through	Laila' s hair, and go someplace remote and safe where	
trigger. One after another, thin jets of warm water struck	Laila' s hair, then her palm when she raised it	
look at him, Laila jo? " Mariam twiddled a strand of	Laila' s hair, untangled a stubborn curl. " For me, it	
his mother caught Laila ste- aling a glance at him.	Laila' s heart jumped, and her eyes fluttered guiltily. She	
and sa- id something in his ear. The militiaman nodded.	Laila' s heart plummeted. " You two, with the child, step	
That' s where I met your friend, Mohammad Tariq Walizai. "	Laila' s heart sped up. Tariq in a hospital? A	
with him. " She says it' s been letting in bees. "	Laila' s heart went out to him. Babi was a	
it does. " It was this story that was circling in	Laila' s head after she gave Rasheed the news about	
and the doctor. Mariam positioned herself behind the crown of	Laila' s head and lowered her face so their cheeks	
in the gate, less than three fingers away from where	Laila' s head had been, that shook Mammy awake. Made	
Laila' s shoulders. With clothespins, the nurse who' d cleansed	Laila' s belly pinned a sheet to them. It formed	
hung by a clothespin over the sink. She pushed on	Laila' s belly with one hand and slid the other	
the few things they shared a com- mon taste for.	Laila' s favorite part of Mammy' s good days was	
s grip and got up. 34. Laila Of all earthly pleasures,	Laila' s favorite was lying next to Aziza, her baby'	
too, some thirty kilome- ters from Murree, where Tariq holds	Laila' s hand as they walk the tree- shaded road	
him pick so- mething up from the ground. She watched	Laila' s hand rise overhead, hold, then come swooping down	
sight of him, Aziza shrieked and buried her face in	Laila' s armpit. Rasheed began nailing boards across the window. * * *	
father, he uttered an excited squeak and impatiently wriggled from	Laila' s arms. Aziza' s greeting to Rasheed was rigid	
her as they did the wash, Mariam' s knuckles bumping	Laila' s as they scrubbed shirts and trousers and diapers.	

Figure 2: Laila as the KWIC

Left Context	Hit	Right Context
Seh, Zalmai bounced in Rasheed' s arms, and Aziza held	Mariam' s hand as she walked quickly beside her. The	
is sacred You see- " He pulled his chair closer, took	Mariam' s hand in both of his own. " You see,	
all right, aren' t we, Mariam, where we' re going? "	Mariam' s hand slid across the bench and closed over	
And another. And then she was running. 43. 194 Madam Upstairs, in	Mariam' s room, Zalmai was wound up. He bounced his	
pain. She saw his foot kick open the door to	Mariam' s room, saw Aziza flung onto the bed. He	
s belt buckle. Wincing, she quietly left the bedroom. In	Mariam' s room, the light was a shade darker than	
infidels who commit crimes against Islam! " Rasheed was smirking. In	Mariam' s arms, Aziza began to cry. * * * The following day,	
See? Go on, now. " As soon as she was in	Mariam' s arms, Aziza' s thumb shot into her mouth	
handful of seconds that she was in Jalil' s garden,	Mariam' s eyes regist- red seeing a gleaming glass structure	
collaredpoosincoats to passersby. But it was the women who drew	Mariam' s eyes the most. The women in this part	
her hands idle on Mariam' s shoulders, eyes locked on	Mariam' s face in the mirror. Out the words came,	
his collarbone. Outside, the light was fading, the shadows deepening.	Mariam' s face looked thin and drawn in this light,	
crossly. He reached into the pocket of his pants, uncurled	Mariam' s fingers, and pushed a handkerchief into her palm.	
off evil. It was this last piece that slipped from	Mariam' s fingers, that fell to the wo- oden floorboards	
mullah motioned toward the veil, and Nargis arranged it on	Mariam' s he- ad before taking a seat. Mariam looked	
they were giving her. There was an unpleasant hum in	Mariam' s he- ad. Her throat burned. She drank some	
Here, Laila can lay her cheek on the softness of	Mariam' s lap again, can feel Mariam swaying back and	
look after Aziza for a few moments. Aziza leaped onto	Mariam' s lap and clung to her. " We' re just	
of the taxi, they did not speak. Aziza sat on	Mariam' s lap, clut- hing her doll, looking with wide-	
She crawled back to Mariam, looking bruised and confused. In	Mariam' s lap, she sucked her thumb cheerlessly and watched	
a pause. " He says he died years ago, back in 1987. "	Mariam' s stomach fell. She' d considered the possibility, of	
had called for her. " You have a suitor, " Khadija said.	Mariam' s stomach fell. " A what? " she said through suddenly	
homesick. It was with the sun' s westward crawl that	Mariam' s anxiety really ratcheted up. Her teeth rattled when	
Her knees weakened. Laila suddenly wanted, needed, to grope for	Mariam' s arm, her shoulder, her wrist, something, anything, to	
girl. He was sitting on a folding chair besi- de	Mariam' s bed, where the girl lay. " Lucky for you,	

Figure 3: Mariam as the KWIC

Combining the KWIC results of the names ‘Laila’ and ‘Mariam’, the story content and characters can be analyzed. Laila loses her parents and lover Tariq during the war and is forced to marry Rasheed. Based on the author's description of Laila, it indicates that Laila is very reluctant to give up her lover and that her life is full of depression after she is forced to marry Rasheed. Laila, who assumes her lover has left her, is extremely sad, but she chooses to stay at Rasheed's house in order to survive. At first, Mariam thinks Laila takes away her husband, so she treats Laila badly. But then Laila helps Mariam when she was nearly beaten to death by Rasheed. Friendship begins to sprout between the two women and there also exists a mother-daughter connection within them. Mariam, ever since she married Rasheed, she has suffered from domestic violence. As it can be seen from the results from the graph, Mariam's status at home has always been lower than Rasheed. All her life is to take care of the family's daily life. In such a bad situation, she is more like a servant in this family. The only thing that supports her is her children. After experiencing the pain of losing her son, she loses her goal in life. At the same time, she has no other choice but to bear all of Rasheed's disrespect and speechless violence because she knows that there is no chance that she could survive if she leaves Rasheed. Her mother committed suicide when she was young. As an illegitimate daughter, she was abandoned by her biological father. For her, the only place to live was Rasheed's home. All these changes after Laila came in

and helped her avoid being violently beaten by Rasheed. Both women have tragic pasts and suffer from everyday humiliation from Rasheed. They support each other. Although there is a large gap in age, the relationship between them has gradually grown closer as time goes by. The description of these two characters involves Rasheed's harm to them. Domestic violence is what the author wants to show. In the context of war, women bear the heavy pressure of poverty and violence. The sadness and patience contained in their hearts are revealed through these two characters in the author's works. In addition, regarding the setting of children, the author also shows the tenacious character of women in order to protect children. The birth of the child also further shortens the distance between the two roles. Laila's first child added unprecedented warmth and laughter to the lives of Laila and Mariam. The only child became one of the few glories in their lives. However, because is not satisfied with the baby's gender, the atmosphere in the house is still under great depression from Rasheed. Facing these pressures, the two women begin to help and look after one another. At the same time, Mariam and Laila jointly hide the real father of the child, which also paves the way for the climax of the later novel. The name Tariq, which appears in the keyword results after searching the name Laila, also promotes the development of the story plot to a climax. The heavy pressure of the family borne by the two women can also be seen in the author's description of Rashid.

Left Context	Hit	Right Context
mounds of flyblown garbage littering the street here and there.	Rasheed'	s house had two stories. Mariam could see that
unlocked the front door and let her into the house.	Rasheed'	s house was much smaller than Jalil' s, but,
air. * * * On the way to Karteh- Seh, Zalmi bounced in	Rasheed'	s arms, and Aziza held Mariam' s hand as
knuckle of her thumb. She slung her free arm over	Rasheed'	s back and her fingers dug at his shirt.
Mariam. After, she had run upstairs and thrown herself on	Rasheed'	s bed. Downstairs, Mariam was still yelling, " Dirt on
her arms, her thighs, all engraved with the cuts of	Rasheed'	s belt buckle. Wincing, she quietly left the bedroom.
Laila' s hands, blood flowing from the open gash on	Rasheed'	s cheek, blood down his neck, on his shirt.
guide the spoke, if indeed she co- uld ever love	Rasheed'	s child as she had Tariq' s. In the
pooped, marbles; when he lit matches; when he chewed on	Rasheed'	s cigarettes. When Zalmi was born, Rasheed had moved
unfinished crib in the toolshed or the suede coat in	Rasheed'	s closet. The baby came to life then and
the girl out of the corner of her eye as	Rasheed'	s demands and judgments rained down on them like
candy, then retrieved from the flap- door coin return below.	Rasheed'	s eyebrows shot up when the seller quoted him
it blotted out by the shuttered darkness. In the dark,	Rasheed'	s face was like a sunspot. Brief little bursts
vindication. Other days, Mariam was besieged with anger. It was	Rasheed'	s fault for his premature celebration. For his foolhardy
too dry, the bread declared too doughy or too crispy.	Rasheed'	s faultfinding left her stricken in the kitchen with
were passing through the front door and into the yard,	Rasheed'	s foot caught against the doorframe and his leg
gun fire. Laila closed her eyes. She woke again to	Rasheed'	s heavy fo- otsteps in the hallway. She dragged
the correct street but suddenly could not remember which was	Rasheed'	s house. She ran up then down the street,
relations with Na- na out of wedlock. Which was worse,	Rasheed'	s magazine or what Jalil had do- ne? And
ordinary his faults seemed now, how forgivable, when compared to	Rasheed'	s malice, or to the brutality and violence that
Yes? * * * I' d just as soon we get it done. "	Rasheed'	s mouth opened, then spread in a yellow, toothy
can' t see this. * * * Mariam fished the bedroom key from	Rasheed'	s pocket before they wrapped him in a bedsheet.
day at the tandoor stir- red in her stomach, but	Rasheed'	s presence was of some comfort, and, after a
more than dangle from it. She did succeed in slowing	Rasheed'	s progress toward Ma- riam. " Let go! " Rasheed cried. "
the blanket, breathing out short little answers to Mariam and	Rasheed'	s questi- ons. Some days she was childlike, whipped

Figure 4: Rasheed as the KWIC

From Laila's perspective, it's hard for her to love Rasheed's children as much as she loves Tariq's children. The former is the blessing and the proof of the love between her and Tariq, and the existence of the latter constantly reminds her of the unfair treatment she has suffered. Here, Laila's different psychological reaction to the two children also paves the way for the later secret exposure. In addition, in Mariam's eyes, Rasheed is cold and full of oppression, however, he provides the place for her to live. Out of fear, Mariam followed Rasheed's request. Years of oppression make Mariam cherish the company of Laila and her first child. They are like the only light in Mariam's world. She is willing to sacrifice everything to protect them. This emotion also echoes Mariam's later choice of killing Rashid to protect Laila.

3.3 Plot Arrangement Analysis

Because the main characters of this paper are Laila and Mariam, when Laila and Mariam are input into Antconc respectively, the following results are obtained.

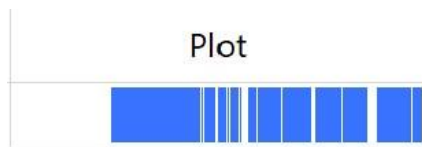


Figure 5: Plot of Laila



Figure 6: Plot of Mariam

Figure 5 shows the frequency of the name 'Laila', and Figure 6 indicates the frequency of the name 'Mariam'[5]. It is shown from the above two pictures that the story begins with Mariam's single story, explaining her earlier experience and providing a background introduction for shaping the character image. Then the story of Mariam is interspersed in the narrative of Laila, which indicates the next meeting between the two characters. In the latter part, the proportion of the two characters is equal. It is illustrated that at this time, the author mainly describes the common life of the two characters. Near the end, Laila and Mariam each have missing elements of each other, which means that the two characters have different endings.

4. DISCUSSION

To reflect the tragic experience of women during the war as the theme of the novel, the author chooses to reveal this sad and helpless core by carefully depicting the character's experience and image. Thanks to its emphasis on the description of the characters, the novel does not have a too sad atmosphere, but highlights the tenacious quality of women under the unfortunate fate.

The friendship and family affection between the characters also reflect the greatness of love, sublimate the work, and express one of the author's writing intentions: praising the women who helped each other in the war and the precious friendship between them. At the same time, Mariam's regrettable ending is also a setting for the author to expose the cruelty of war. Love and war, in the process of repeated interweaving, arouse readers' thinking. In writing, the author uses chronological order to narrate and methodically show the readers the two women's different experiences, their lives together, and their different endings. Mariam's role has set a tragic tone for her life from the beginning. Born as an illegitimate daughter, she has never felt loved and cherished in her life. Fortunately, she met Laila and her first child. Their existence makes Mariam have the experience of being equal and friendly with others, being needed and appreciated by others for the first time. In order to protect this hard-won friendship, she has no time to worry about the fear of being controlled by Rasheed all the year round, and saved Laila from being nearly beaten to death by him. This time, she gets rid of Rasheed and was liberated from perennial depression. But the invisible shackles of fate do not let her go. She finally sentences to death and ends her life. There seems to be a perfect ending for Laila of raising the child together with her lover. However, on reflection, can Laila really be happy without Mariam, a close friend who sacrifices her life to protect her like a mother? This ending also implies the fact that it is difficult to heal the pain brought by war and causes readers to think about war and peace.

5. CONCLUSION

The above content indicates that the lexical flow of the novel is medium, analyses the characters and surrounding of the two heroines and points out the way the author sets the plot to express the main concept of the novel. The corpus based analysis method of literary works "although there is no major breakthrough in the judgment of language features, it is fast, accurate, time-saving and labor-saving, and the evidence is substantial and convincing".

With the help of the complete scientific data obtained by the corpus retrieval tool, we can analyze and summarize the vocabulary, vocabulary change degree, work difficulty, character image and story plot arrangement of literary works, which avoids the possible data statistical leakage in manual analysis to a certain extent. However, while affirming the convenience of corpus method, we cannot ignore the importance of reading through the complete works. Only based on knowing all the works, can corpus tools play their role and help us further understand the significance of literary works. Therefore, we need to combine our literary reserves with scientific tools to make a valuable analysis of literary works.

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