Grammatical Cohesion: An Application of Halliday's Systemic-functional Grammar to Hemingway's *The Old Man and the Sea*

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**ABSTRACT:**

The purpose of this study is to examine and investigate the relative frequency of grammatical cohesive devices in Hemingway's famous-world novel *The Old Man and the Sea*. Cohesion is normally defined as the use of grammatical and lexical devices to guarantee text integrity. It gives the quality of wholeness and unity to a text. Cohesion occurs where the interpretation of certain elements in the discourse is dependent on that of the other. The one presupposes the other in the sense that it can only be effectively decoded by recourse to it thus establishing the relationship of cohesion between the two elements, that is, presupposing and the presupposed. (Halliday & Hasan, 1976, p. 4) Having analyzed grammatical cohesion, the findings indicate that the use of grammatical cohesive devices and their function as a cohesive linking in different discourses may help unfold the hidden implications of the writing style. The thesis attempts to combine a discourse-stylistic approach to the cohesive devices and the novella under analysis. It also aims to reveal that examining the language of a literary text could be a means to a fuller understanding and appreciation of the writer's artistic achievement as well. The novel is the best illustration of Ernest Hemingway's "powerful style-forming mastery of the art of writing modern fiction" (McGowan, 2011, p. 95) and is also earned him the Pulitzer Prize in 1953 for fiction and the Nobel Prize for Literature in 1954. The novella, meanwhile, is a final summary of Hemingway's language techniques and artistic features; his implicit and profound thoughts – "grace under pressure" embodied in the story are well displayed in the simple, colloquial and concise language.

**Keywords:**
Grammatical Cohesion, substitution, ellipsis, conjunction, cohesive devices

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I- INTRODUCTION

Since Cohesion Theory was established in 1976, some linguists and researchers have begun to introduce its achievements into their own studies, so that they can conduct observation and make a systemic exposition on cohesive devices practice. They have received many linguists' challenges, too. Among those challenges, Gutwinsky, Brown & Yule, Beaugrande & Dressler are relatively more influential. Also, many other linguists who have been concerned about providing their own definitions of this term are Quirk (1985), Leech and Svarvik. The study briefly reviews some previous challenges that may help researchers see Halliday & Hasan's cohesion theory more clearly.

Among these studies, Gutwinsky (1976, p. 26) defines cohesion as the relations among the sentences and clauses of a text. Its focus on the potential stylistic applications of cohesive studies has provided a starting point for some research studies in stylistics. Fowler (1977, p. 72) takes the view that cohesion is a linguistic pattern that contributes to the impression of texts that hang together. Moreover, from the viewpoints of Beaugrande & Dressler (1982, p. 3), all the functions, which can be used to signal the relations among surface elements, are included under the notion of cohesion; besides, they indicate cohesion as one of the standards that make up a discourse. According to them, there are seven standards: cohesion, coherence, intentionality, acceptability, informativity, situationality and intertextuality. Unless it includes all the seven standards, a discourse won't have communicability. Hoey (1991, p. 1) states that "cohesion may be crudely defined as the way certain words or grammatical features of a sentence can connect that sentence to its predecessors and successors in a text." He also makes a number of suggestions. In particular, he notes that a text is in part organized and created by the presence in each sentence of those elements that require the reader to look to the surrounding sentences for their interpretation.

According to Widdowson (1990, p. 104), by interpreting meaning, grammatical cohesion serve as directions, instructing discourse participants to make a particular kind of connection between the linguistic sign and the relevant aspects of their schematic knowledge. Thus, Widdowson (1992) points out the role of grammatical cohesion in the negotiation of pragmatic meaning: Over recent years, we have seen the restoration of grammatical cohesion from its temporary exile. But we surely do not want it restored under the old dispensation. We need to enquire into the way it relates to lexical cohesion, how it operates as a complement to context in the achievement of pragmatic meaning, how it functions in the regulation of language use.

It is clearly noticed, from the comment above that, Widdowson's focus is specifically on the way grammar relates to lexis and the way it operates as a complement to the context.

Thompson (1996) considers cohesion as some of the resources for creating 'texture'; the quality of being a text rather than a collection of unconnected words or clauses:
they are grouped together under the label of cohesion. Moreover, Thompson explains that cohesion refers to the linguistic devices by which the speaker can signal the experiential and interpersonal coherence of the text and is thus a textual phenomenon.

In Thornborrow & Wareing (1998, p. 127), the term 'cohesion' literally means 'sticking together'. For a conversation or indeed any text to be understandable, it must be cohesive. In other words, the parts of the text must relate to one another. They hold that if a text lacks cohesion, it will appear very disjoined, and will not seem to make any sense. What makes a text 'cohesive' is that all the information in it relates to what has already been told or written. James Paul Gee (1999) states the point: Speakers and writers have to do more than connect clauses within sentences. They must also connect sentences across whole texts. The grammatical devices we use to create such connections are called cohesive devices. They signal to the hearer the connections between the sentences of a text and are part of what makes a text sound like it 'hangs together' (p. 159)

Gee also lists six major classes of cohesive devices and shows how the member of that class is represented in examples. They are pronouns, determiners and quantifiers, substitution, ellipsis, lexical cohesion, conjunction and other conjunction-like links. Gee tries his best to answer the following questions with cohesive devices examples: how does cohesion work in the text to connect pieces of information and in what ways; how does the text fail to connect other pieces of information and what sort of sense are these connections making or falling to make and for what communication ends.

In studying cohesion, Brown & Yule (1983) pay adequate attention to reference: …that function whereby speakers (writers) indicate, via the use of a linguistic expression, the entities they are talking (writing) about. Successful reference depends on the hearer's identification, for the purpose of understanding the current linguistic message, the speaker's intended referent, on the basis of the referring expression used." (p. 205)

In addition, they discuss reference in detail: where their interpretation lies within a text, they are called endophoric relation and form cohesive ties within the text. Endophoric relations are of two types: those looking back in the text for their interpretation, which Halliday & Hasan (1976) call 'anaphoric relations,' and those looking forward in the text for their interpretation, which are called 'cataphoric relations'. Also, on substitution, Brown & Yule state:
Substitution cannot take place on a strict replacement of an anaphoric form by an antecedent. " The reappearance of identified entities with different descriptions attached to them does suggest that we need some model of processing which allows entities to accumulate properties or to change states as the discourse progresses." (Brown & Yule 1983, 202).

**Aim of the study:**
The present study is an attempt to investigate and analyze the grammatical cohesive devices in Hemingway's *The Old Man and the Sea* to reveal which cohesive devices have been more frequently used in the novella; and how they contribute to the integration of the text.
Scope of the study:
For the purpose of investigation, all examples of grammatical cohesive devices have been selected from the corpus of *The Old man and the Sea*. Therefore, Hemingway's other novels are not emphasized.

Research questions:
This study is supposed to find answers to the following questions:
"What are the grammatical cohesive devices in Hemingway's novella?"
From this question, the following questions emerged:

a) Which grammatical cohesive devices have been more frequently used in the novella?
b) How do these cohesive devices contribute to the integration of the text?

Procedures:
Halliday (1976) introduces five types of cohesion: reference, substitution, ellipsis, conjunctions and lexical cohesion, the first four are known to form grammatical cohesion. Depending mainly on Halliday's cohesion theory as an analytical framework, the present study identifies the grammatical cohesive devices used in the novella. In order to get the goal of the analysis, the study takes the following two measures:

First, the frequency data of each cohesive device is collected and checked as data for analysis. All the data are processed and analyzed by Wordsmith Tools (version 7.0), then the data of each category of cohesion is put into computer to calculate the percentage.

Second, with the help of the accurate data, the study analyzes the function of these cohesive devices performed in the whole literary work: how these ties dig out the theme of the novella; and how the linguistic coherent texture contributes to the writer's point of view.

Data collection and Analysis:
Descriptive analyses of the quantitative data are conducted using Wordsmith Tools (version 7.0). In order to test the validity of the analysis, a number of passages are selected and analyzed

I. RELATED STUDIES
Reviewing the literature in the field of cohesion analysis in literary texts, the researcher observes that there are several studies conducted over the years. The most common example of studies which combine systemic-functional linguistics and literary analysis is that by Norgaard (2003). The study provides an extensive analysis of cohesion in two texts by James Joyce; the short story *Two Gallants* and the novel *Ulysses*.

In regard to cohesion in *Two Gallants*, Norgaard discusses the foregrounded patterns that show how Joyce uses cohesive devices to construe the characters' points of view. For example, Norgaard analyzes a part in the story where a participant who has already been presented in the narrative is referred to as if she appears to the
audience for the first time: "A woman came running down the steps...". Norgaard argues that this is a conscious choice on Joyce's part because he is narrating the story from a specific character's point of view: "The indefiniteness reflects the fact that this is how Lenehan perceives things. From a distance, Lenehan simply cannot see who the woman is, hence the indefinite expression, which in turn encodes the perspective" (Norgaard, 2003, p. 144)

Norgaard also explains how the use of "unresolved cohesion" can influence the readers' interpretations in different ways. One example of unresolved cohesion is the reference to "the city" at the beginning of the story, where the identity of the referent is mentioned neither within nor outside the text. Most readers would infer that "the city" refers to Dublin in this story given the title of the book it appears in. On the other hand, Norgaard (2003) points out that readers who do not have such background would interpret the city as "just any city" depending on the effect of drawing their attention to the spatial setting. She also claims that this sort of cohesion creates the impression that the reader has a "shared experience" with the writer and that the text they are reading is a 'slice' of a larger text. (Halliday & Hasan, 1976, p. 298)

Norgaard discusses the interplay between reference and the construal of perspective in "Ulysses". The stream-of-consciousness technique that Joyce weaves into the narrative to make it seem like the reader can 'listen in' on the character's thoughts is characterized by use of unresolved exophoric reference (Norgaard, 2003, p. 178-9), that is, exophoric reference to things which are accessible to the character inside the fictional reality, but which have not been introduced into the discourse. This reference remains unresolved, and thus urges the readers to infer the meanings of these references as far as they go. According to Norgaard, Joyce's use of unresolved cohesion proves how difficult it is to represent reality through language, since [our] perception of the world is always subjective (Norgaard, 2003, p. 182).

II. DATA ANALYSIS AND DISCUSSION

1. Reference:

Halliday and Hasan (1976, p. 32-33) present situational and textual references. Textual reference is reference to another item within the text derived from situational reference which is considered to be the prior form of reference. That means reference in a linguistic context is only secondary or derived from a reference in situational context. There are special terms for situational and textual reference: reference items may be either exophora or endophora. An exophoric item refers to a thing as identified in the context of situation. Exophoric reference refers to the creation of text; it links the language with the context of situation. Its reference is not cohesive, because it does not bind two elements into the text; it takes readers outside the text for interpretation. Only endophoric reference is cohesive and it contributes to the integration of the passage with another to form coherent text. These two instances demonstrate that a reference item is not exophoric or endophoric itself, it simply has the property of reference. (Halliday and Hasan, 1976, p. 37)
An accurate account of the whole novella reveals that the referential cohesive devices are used almost in every sentence and each of them plays a very important role in the construction of the novella. Dozens of passages are collected for analysis. After that each of the referential cohesive devices in the citations is identified by using the Oxford WordSmith Tools (Version 7.0). What follows are three successive tables of data figures of personal reference, demonstratives and comparatives respectively:

**Table 1. Data Analysis of Personal Reference**

<table>
<thead>
<tr>
<th>(Pronoun)</th>
<th>Head</th>
<th>Frequency</th>
<th>Determiner</th>
<th>Modifier</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>mine</td>
<td>518</td>
<td>8</td>
<td>my</td>
<td>50</td>
</tr>
<tr>
<td>me</td>
<td>yours</td>
<td>59</td>
<td>1</td>
<td>your</td>
<td>28</td>
</tr>
<tr>
<td>you</td>
<td>ours</td>
<td>192</td>
<td>0</td>
<td>our</td>
<td>14</td>
</tr>
<tr>
<td>we</td>
<td>his</td>
<td>45</td>
<td>4</td>
<td>his</td>
<td>438</td>
</tr>
<tr>
<td>us</td>
<td>hers</td>
<td>11</td>
<td>0</td>
<td>her</td>
<td>9</td>
</tr>
<tr>
<td>he</td>
<td>theirs</td>
<td>1166</td>
<td>1</td>
<td>their</td>
<td>42</td>
</tr>
<tr>
<td>him</td>
<td>its</td>
<td>225</td>
<td></td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>she</td>
<td>one’s</td>
<td>8</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>her</td>
<td></td>
<td>22</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>they</td>
<td></td>
<td>150</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>them</td>
<td></td>
<td>96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>it</td>
<td></td>
<td>491</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>one</td>
<td></td>
<td>75</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 2. Data Analysis of Demonstrative Reference**

<table>
<thead>
<tr>
<th>Semantic category</th>
<th>Selective</th>
<th>Non-Selective</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Modifier/Head</td>
<td>Adjunct</td>
</tr>
<tr>
<td>Class</td>
<td>Determiner</td>
<td>Frequency</td>
</tr>
<tr>
<td><strong>Proximity</strong>:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Near</td>
<td>this</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>these</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>that</td>
<td>108</td>
</tr>
<tr>
<td></td>
<td>those</td>
<td>7</td>
</tr>
<tr>
<td>Far</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neutral</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3. Data Analysis of Comparative Reference

<table>
<thead>
<tr>
<th>Grammatical Function</th>
<th>Modifier: Deictic/Epithet</th>
<th>Sub-modifier/Adjunct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Class</td>
<td>Adjective</td>
</tr>
<tr>
<td>General comparison</td>
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<tr>
<td>Identity</td>
<td>same</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>identical</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>equal</td>
<td>1</td>
</tr>
<tr>
<td>General similarity</td>
<td>similar</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>additional</td>
<td>0</td>
</tr>
<tr>
<td>Difference</td>
<td>other</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>different</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>else</td>
<td>2</td>
</tr>
<tr>
<td>Particular comparison</td>
<td>better</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>more</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>much</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As indicated in the three tables above, the overall reliability of the data is satisfactorily high and the frequencies of each referential item are also evident. Thus, the frequency of cohesive devices can be put into further study. On the basis of the above figures, the study may come to the fact that, though it is just a 27,000-word novel, reference is used heavily and appears almost in every sentence to show its cohesive function by linking sentences together. In order to make the data more self-sufficient, some typical samples are chosen to test the data results above.

1.1. **Discourse-stylistic effect of reference**

Personal reference, particularly the first and the second personal pronouns are typically exophoric, though sometimes may refer anaphorically, and the third personal pronouns are not only typically endophoric, but also exophoric in the context of situation and function as a cohesive link. In an attempt to investigate the 3rd person pronouns’ cohesive function, the passage below is taken from the novella as an example:

1. The old man and the boy sat on the Terrace and many of the fishermen made fun of the old man and he was not angry. Others, of the older fishermen, looked at him and were sad. But they did not show it and they spoke politely about the current and the depths they had drifted their lines at and the steady good weather and of what they had seen. The successful fishermen of that day were already in and had butchered their marlin out and carried them laid full across two planks, with two men staggering at the end of each plank, to the fish house where they waited for the ice truck to carry them to the market in Havana. Those who had caught sharks had taken them to the
shark factory on the other side of the cove where they were hoisted on a block and tackle, their livers removed, their fins cut off and their hides skinned out and their flesh cut into strips for salting. (pp, 1-2)

They and their appear 6 times respectively and them appears 3 times. This is a typical sample of well-organized third-person-plural-pronoun passage; the pronoun they and the possessive determiner their both refer anaphorically to the preceding items, i.e., the first two their's also refer to others, of the older fishermen, but the last four their's refer back to 'sharks' instead, while the pronoun them refers back to marlin and the shark in the text. The amount of usage of the third personal pronoun shows us how the third person plays a cohesive functional role to bond the whole passage together and avoid the unnecessary repetition.

Using a number of personal references, Hemingway describes the old man as a laughingstock of his small village for he went fishing for eighty-four days without catching a fish. For that reason, Santiago makes up his mind to sail out further than any fisherman has done before, to where promises a big fish, testifying to the depth of Santiago’s pride from another angle. His sense of failure makes him resign himself into a state of unbearable tension, therefore, he decides to gamble with his luck and, maybe, die in the process: "I’ll fight them until I die." (Hemingway 1993, p. 104). Yet it also shows his determination to change his luck that constitutes the very basis of the major conflict of the novel; that is his struggle against the greatest fish of his long career for three days.

In addition, the novel begins with the cataphoric pronoun [He] whose task is to introduce the main character (the old man), that is the protagonist. The same pronoun can also be correlated to a late indefinite noun phrase included in the title of the novel, which informs the reader about the existence of a certain being 'the old man'. In this case, 'he' performs as both a cataphoric and anaphoric proform:

(The Old Man and the Sea) He "was an old man"

<table>
<thead>
<tr>
<th>anaphoric</th>
<th>cataphoric</th>
</tr>
</thead>
</table>

Demonstrative reference is described as a form of verbal pointing. The referents are identified by locating it by proximity. Halliday and Hasan (1976, p. 58) define the proximity usually from the speaker's point of view. These expressions are used to point to a location of the process in space or time (here, there, now and then). According to Yule (1996, p. 13), the expressions pointing to location here and there belong to spatial deixis. He observes that the location from the speaker’s perspective can be fixed mentally as well as physically. The speaker uses here if the place is not only physically close but also psychologically. Also, he/she uses there, that for something which is physically and psychologically distant. These expressions are context dependent items and require contextual information about the place of utterance. This is especially relevant in the literary texts, where the inner feelings towards particular objects are unfolded. Lyons (1995, p. 305) notices that demonstrative adverbs there and then are negatively defined in relation to here and
now because there means not here and then means not now. He observes that the
dctic context depends upon the speaker's here-and-now. It basically refers to
whoever is speaking at the moment and the role of speaker passes from one person to
another in the conversation, so the deictic context switches back and forth, together
with the reference of I and here. The reference of now does not switch back and forth
in the same way, but it is still referring to the act of utterance. Halliday and Hasan
(1976, p. 59-74) present linguistic items which belong to the category of the
demonstrative reference:
1) the demonstrative pronouns this-these, that-those
2) the definite article the
3) the demonstrative adverbs here, there, now and then.

Demonstratives this/these, that/those occur with a noun phrase and have anaphoric
function. Demonstratives here, there, now and then refer directly to the location of the
process in space or time not via person participating in the process.

The definite article signals the definiteness of the noun it modifies, it shows that the
information is presented or given. The is a referential item that belongs to the group of
demonstratives even though it does not point to the exact place of the referent. It only
helps to create a link between a sentence in which it is used and the one in which the
referent occurs. The neutral demonstrative the was the most commonly used in the
analyzed novel.

2- When the boy came back the old man was asleep in the chair and the sun was
down. The boy took the old army blanket off the bed and spread it over the back of the
chair and over the old man’s shoulders. They were strange shoulders, still powerful
although very old, and the neck was still strong too and the creases did not show so
much when the old man was asleep and his head fallen forward. His shirt had been
patched so many times that it was like the sail and the patches were faded to many
different shades by the sun. The old man’s head was very old though and with his eyes
closed there was no life in his face. The newspaper lay across his knees and the weight
of his arm held it there in the evening breeze. He was barefooted. (p. 11)

Essentially, the like other demonstratives is a specifying agent, serving to identify a
particular individual or subclass within the class designated by the noun, but it does
this only through dependence on something else – it contains no specifying element of
its own. Here, Hemingway draws a rich portrait of the old man with the detailed
illustration of 20 neutral demonstrative references: ‘the head’ and ‘the shoulders’ are
very old but still powerful, so is the neck. By using the for 20 times and the words
‘although’ and ‘though’ to bring out the contrast between the head and youth, strong
shoulders, also bare-footed Santiago, all the above show the receiver Santiago’s simple
life, and underscores Santiago’s age and his "patched many times and faded, like an
old sail shirt". Everything about him was old except his eyes that were "the same color
as the sea and were cheerful and undefeated." (p. 3)

Hemingway describes the beauty of simplicity of Santiago’s life successfully. These examples contain the cataphoric reference since the use of the imply known or
given nouns and there are not any previous hints of the nouns, so it points reader's
attention forward in the text. The use of cataphoric reference of the definite article the is frequent compared to the use of anaphoric reference.

3- "Just then he saw a man-of-war bird with his long black wings circling in the sky ahead of him. ...He rowed slowly and steadily toward where the bird was circling." (24)

4- "There was a small sea rising with the wind coming up from the east." (52) "....the old man rode gently with the small sea and the hurt of the cord across has back came to him easily and smoothly." (54)

The two examples above illustrate the use of anaphoric definite article. Indefinite article a presents bird and small sea as new and unknown. Therefore the following sentences are using the demonstrative the to indicate the awareness of the information. Each is pointing back to the first mention of noun known as antecedent, whereas the bird and the small sea are called anaphoric expressions.

The previous analysis reveals that the definite article does not require prior mention of the referent, so its function as cataphoric reference is also evident. Moreover, the definite article could point to a noun from the text, showing its importance and referring to it as particular object.

The linguistic element this appeared not often in the analyzed novel. There are only 50 examples of the modifier this. The inherent use of demonstrative this is to indicate the nearest thing. It also belongs to "the class of determiners and it has a function of deictic; it can function as Modifier or as Head" (Verikaitė, 1999). A demonstrative functioning as Head is more like a personal pronoun and there are few examples of this case:

5- "This is the second day now that I do not know the result of the juegos, he thought." (55)

6- "This is a fish built to feed on all the fishes in the sea, that were so fast and strong and well armed that they had no other enemy." (84)

7- "Then live a long time and take care of yourself," the old man said. "What are we eating?" "Black beans and rice, fried bananas, and some stew."

The boy had brought them in a two-decker metal container from the Terrace. The two sets of knives and forks and spoons were in his pocket with a paper napkin wrapped around each set.

"Who gave this to you?" "Martin. The owner." "I must thank him." (12)

8- "He [the old man] held the line against his back and watched its slant in the water and the skiff moving steadily to the north-west." "This will kill him, the old man thought." (35)

The demonstrative this in the examples (5, 6) refers exophorically to the second day and a fish, which are known for the speaker and the addressee from the context of situation. It could easily be replaced with the pronoun it. In the examples (7, 8) this also functions as a Head, but it has the obvious referent the food and the line respectively: in example 7 the boy brought a meal of black beans and rice, fried bananas, and some stew, while in example 8 the old man thought that holding the line
in this way will kill the fish. Therefore, in order to know what this means it is necessary to know the context of the situation.

The other function of the determiner this in the novel is as Modifier:
9- "I am not religious," he said. "But I will say ten Our Fathers and ten Hail Marys that I should catch this fish, and I promise to make a pilgrimage to the Virgin of Cobre if I catch him. That is a promise." (52)
10 - "Now I must prepare the nooses and the rope to lash him alongside, he thought. Even if we were two and swamped her to load him and bailed her out, this skiff would never hold him." (79)
11- "Don't think, old man,' he said aloud. 'Sail on this course and take it when it comes." (87)
12- "Do you believe the great DiMaggio would stay with a fish as long as I will stay with this one." (56)
13- "I could not fail myself and die on a fish like this, he sail" (72)

These examples show the essential characteristics of the determiner this. It creates the cohesive ties with the noun phrase that it points to and its meaning is identical with the presupposed item. However this does not convey new information even though it is a part of the noun phrase as this fish, this skiff, this course and this one. It alerts the reader to look for more detailed information, as in the example (12), it is not clear to what entity the word one points to at first and it is necessary to return back a little to see that it is a fish. This course in the example (11) remains vague for the reader as it depends only on the context of situation.

There are only seven examples of the plural demonstrative these used by Hemingway when creating his novel. These functions either as a Head, whose referent exists already in the text as a type of anaphoric reference:
14- "I know where I can get four baits too.' I have mine left from today. I put them in salt in the box.' 'Let me get four fresh ones.' …' Two,' the boy said. 'Two,' the old man agreed. 'You didn't steal them?' 'I would,' the boy said. 'But I bought these." (7)
or as a Modifier, which limits, intensifies and adds to the meaning of the noun phrase such as:
15- "But none of these scars were fresh. They were as old as erosions in a fishless desert." (3)

These here refers to the deep-creased scars in the old man's hand resulting from handling heavy fish on the cords. The main purpose of the demonstratives this/these is to indicate proximity to the speaker, refer to some entity that is participating in the process and to point to this entity in particular giving it the emphasis which is necessary for the situation.

The use of the modifier that is significantly higher compared to the use of modifier this. The characteristics of that is quite similar to this. The only essential difference is that the demonstratives that and those imply distance from the speaker. They may indicate both psychological and physical distance. Another thing is that being used to refer to something that was said by others and this being used to refer to something
said by the speaker himself. *That* as well as *those* can function as a Modifier or as a Head:

16- "The successful fishermen of *that* day were already in and had butchered their marlin out." (5)

17- "How many did you ever kill, old fish? You do not have *that* spear on your head for nothing." (97)

18- "That's two dollars and a half. Who can we borrow *that* from?" (10)

19- "He never *went* turtle-ing. *That* is what kills the eyes. But you *went* turtle-ing for years off the Mosquito Coast and your eyes are good." (7)

20- 'When the old man had gaffed her and clubbed her, holding the rapier bill with its sandpaper edge and clubbing her across the top of her head until her color turned to a color almost like the backing of mirrors,… *That* was the saddest thing I ever saw with them, the old man thought." (39)

In the first two examples, *that* is used as a Modifier which distinguishes the presupposed item from the others; in example 16 *that* associates to the past tense therefore the day has already passed away, while in example 17 *that* specifies a particular spear, with which the old man could kill many sharks. He could not talk to the giant marlin as it had been so badly ruined. However, he wonders if the fish has killed many sharks, then what he could do if he had a spear like that.

As shown in example (18), demonstrative *that* functioning as a Head is more like a personal pronoun. It is still referring to the particular noun phrase 'a terminal of the lottery with an eighty-five,’ for the former, and 'two dollars and a half' for the latter. Since the use of *that* indicates the distance, Hemingway assumes that the old man and the boy do not have the money to buy the lottery with, and they have to lend or beg it. The first reference 'a terminal of the lottery with an eighty-five' can be broader, as it may refer to some other kind of lottery since the numbered ticket of eighty-five may be unattainable, and they should have bought a ticket of eighty-seven instead. Moreover, it is certainly true that Santiago’s eighty-four-day run of bad luck is an affront to his pride as a masterful fisherman, and that his attempt to bear out his skills by sailing far into the gulf waters leads to disaster. In spite of his persistent struggle against defeat, he sees his chance to catch a fish is something distant exactly as a sheet of lottery.

The demonstrative *that* refers not only to a particular word but to some event or situation as well. The extended references in examples 19 and 20 save the time, because there is no need to repeat the same long phrase all over again. Repeating these long phrases would not be good for literary works. The sentences 'He never *went* turtle-ing’. 'What kills the eyes is *went* turtle-ing’ (19) and "the old man had gaffed her and clubbed her, holding the rapier bill with its sandpaper edge and clubbing her across the top of her head, and *holding the rapier bill with its sandpaper edge and clubbing her across the top of her head* was the saddest thing I ever saw with them" (20) seem unnatural; there is no need to repeat the same thing after it was just said therefore *that* is very useful for text economy.
There are only seven examples of the plural demonstrative *those*, two of them function as a Modifier before the noun phrase, whereas the others are used as a Head referring back or forward to some particular entities in the text:

21- "In the other League, between Brooklyn and Philadelphia I must take Brooklyn. But then I think of Dick Sisler and those great drives in the old park." (13)

22- "I have *those prayers* I promised if I caught the fish, he thought." (98)

23- "Why did they make *birds* so delicate and fine as *those* sea swallows when the ocean can be so cruel? She is kind and very beautiful. But she can be so cruel and it comes so suddenly and *such birds* that *fly, dipping and hunting*, with their small sad voices are made too delicately for the sea." (21)

The use of the plural form is mostly the same as the singular. In the examples (21, 22) *those* is used as a modifying element of the noun phrases 'great drives' and 'prayers' respectively. The use of the modifier *those* is a reflection of the distance from the speaker, since it refers either to the longest ball hit by the player Dick Sisler in Brooklyn in the past, or to the ten Our Fathers and ten Hail Marys the old man could not say them then as he is too tired. Yet he promises to say those if he catches a fish. The reference in example 23 functioning as a Head refers to the birds *that fly, dipping and hunting in the sea*. Since there is a variety of birds on the sea, the use of *those* is necessary as it specifies the referent.

There are four demonstratives adverb *here, there, now and then*. The main purpose of these adjuncts is verb pointing and indicating place and time. The adverb *now* is used in the novel quite often. 172 tokens appear mainly in the dialogues to indicate the time of the utterance.

24- 'I am a strange old man. But are you strong enough *now* for a truly big fish?' (7)

25- 'A flying fish is excellent to eat raw and I would not have to cut him up. I must save all my strength *now*.' 'Christ, I did not know he was so big.' (53)

26- 'I have the gaff *now*,' he said. 'But it will do no good.' (94)

These utterances refer to the present time of the situation. The adverb *now* indicates the time of the speaker’s utterance. In literary works *now* shows the time of the developing situation in the text, but not the time at which the author produces the text. It is not relevant for telling a story, because it creates fictional time. In the analyzed novel, the adverb *now* is used heavily in the narrative:

27- 'It was dark *now* as it becomes dark quickly after the sun sets in September.' (61)

28- '...what could happen when he reached the inner part of the current? But there was nothing to be done *now*.' (87)

29- 'It was an easy shot *now* and he felt the cartilage sever.' (92)

Those refer to the time of the situation in the text, not to the time of the narration. There is no difference between the use of *now* in dialogues and narratives. However, the use of this adverb can be significant in some situations; especially in literature; it can raise some question for interpretation, for example:

30- 'But we will fish together *now* for I still have much to learn.' (106)
This novella in its plain language and simple plot contains a complex analysis. Even the use of this adverb whose purpose is to refer to the time of the utterance is hiding some details about the main characters of the novel. Although the old man states that he is not lucky any more, the boy intends to accompany him on his fishing journey saying there's still much to learn. It seems that the temporary feelings of the boy towards the frustrated man make him decide not to abandon his old friend; he does not care whatever his parents say. Yet, he is obviously unsure if he is going to do that later on. Therefore, now can indicate the temporality of the situations and actions.

The adverb then stands in opposition to another adverbial demonstrative now; it refers to a particular time in the past or future and also indicates something going immediately afterwards. The adverb then is used less frequently than the adverb now with 147 examples demonstrated in the novel:
31- 'The fish pulled part way over and then righted himself and swam away.' (77)
32- 'He [the old man] felt the iron go in and he leaned on it and drove it further and then pushed all his weight after it.' (78)
33- '…he saw the drops jumping from it in the sun. Then it started out and the old man knelt down and let it go back into the dark water.' (72)
34- 'The fish is calm and steady. I will eat it all and then I will be ready.' (47)

In the examples 31 and 32, then is used conjunctively. It seems that Hemingway uses the conjunctive then as frequently as using it anaphorically. In example 33, then refers back to the preceding sentence. As there is no exact time given, the actions of the character occur one after the other. As the giant marlin begins to circle under the water, the old man feels a faint slackening of the pressure of the line which begins to start out again. In example 34 then is also anaphoric and it refers to the future. For the old man, the state of being ready depends mainly on eating such 'a strong full-blooded fish', which can provide him with the strength he needs.

Taking into account, both time deixis now is used to refer to the presence of the situation and to emphasize the temporality, but then is used for references concerning the past and the future. Unlike the adjunct now, then may refer to the continuity of the situation. Also it is not very specific; it only shows the direction either the future or the past but not the exact time.

Place deixis indicates spatial locations of the participants in the utterance. The only deictic adverbs in English are here and there. Here indicates proximity, but there refers mainly to somewhere distant to the speaker. The locative here is extremely rare in the analyzed novel with only 13 examples; six of them are repetitions of the same clause:
35- 'If the boy were here he could rub it for me and loosen it down from the forearm, he thought.' (50)
36- 'If the boy was here he would wet the coils of line, he thought. Yes. If the boy were here.' (69)
37- 'I can reach him with the gaff and eat him here in comfort.' (45)
Far out in the Gulf Stream, when Santiago notices that the fish slows its speed; it finally jumps out of the water and he sees that it is a marlin, which is even longer than his boat. The fish is 5.40 m long and 340 kg heavy. The old man wishes that the boy were there to help him by killing the fish because his health is deteriorating. He repeats: "If the boy were here, if the boy were here." He feels very lonely and recognizes that the fish is much, much stronger than he himself is: "Man is not much besides the great birds and beasts. Still I would rather be that beast down there in the darkness of the sea. Unless sharks come. If sharks come, God pity him and me." By saying this, the old man reveals that he is afraid of sharks. As already mentioned, here shows proximity as it refers to a particular place in the waters off Cuba where the old man struggles with the giant marlin. In the researcher's point of view the examples above demonstrate the exophoric locative function of here.

The spatial deixis there appears more recurrently than here with 102 tokens all over the novel. An accurate analysis reveals that there is pointing to a particular location in the utterance:

38- 'He worked back to where he could feel with his foot the coils of line that he could not see. There was plenty of line still and now the fish had to pull the friction of all that new line through the water. (69)
39- 'It was quiet in the harbor though and he sailed up onto the little pitch of shingle below the rocks. There was no one to help him so he pulled the boat up as far as he could.' (102)
40- 'He went into the Terrace and asked for a can of coffee…. 'There has never been such a fish. Those were two fine fish you took yesterday too.' (104)

In the first example, the adverb there refers anaphorically to the coils of line which he could not see in the skiff, but he could feel it with his foot instead. The same thing for the second example; the deictic there is pointing back to the harbor where nobody helps the old man to pull the skiff up onto the beach. In the third one, there does not point to the Terrace in the preceding sentence, but it refers exophorically to somewhere beside the skiff where lies a skeleton of a very giant fish; eighteen feet from nose to tail as measured by one of the fishermen. As evident in the examples above, there can refer either anaphorically to a place in preceding sentences or exophorically to somewhere distant realized from the context of situation.

According to Halliday and Hasan (1976, 76-77), two types of comparatives could be demonstrated here: general and particular. General comparatives refer to particular things having either similarities or distinctions. They express likeness between things. This group is expressed by certain adjectives and adverbs. The adjectives function either as Deictic or as Epithet. The adverbs function as Adjunct in the clause. The analyzed novel contains these comparatives: same, other, so.

41- 'he tried it again and it was the same.' (78)
42- 'He didn't do so badly in the night.' (70)

The comparatives in these examples show likeness of some particular things. In the first example, the comparative same is used in relation to the old man's desperate
attempts to get the fish close to the shore. In each time, he drops the line and puts his foot on it and leaving the harpoon as high as he could with all his strength, but the fish rights himself and swims off again. The referent in this example is deleted as a type of ellipsis. The comparative so in the second functions as an Adjunct modifying the adverb badly to refer back to the verb 'didn't do' as a type of anaphoric reference. A small number of comparatives indicating similarity and identity is used in the novel.

There are some general comparisons referring to differences of two things too:

43- 'The other shark had been in and out and now came in again with his jaws wide.' (96)
44- 'Eat the other flying fish.' (71)
45- 'He ate the other part of the piece that he had cut in two.' (47)

The Epithet other is specific here; it refers to another shark, flying fish and the other part of the piece not those particular ones.

The other group of comparatives appearing in the novel is particular comparison. This group expresses comparability of the things according to particular property; it may be property of quantity or quality.

46- "Sometimes he would be so tired that he could not remember the prayer. (52)
47- "He came like a pig to the trough if a pig had a mouth so wide that you could put your head in it." (94)

While the first underlined comparative functions as a qualitative Epithet describing the old man, the second is a quantitative Epithet describing the mouth of the shark that gets close as if it were a pig. So wide refers forward to the clause 'you could put your head in it'.

48- "I shouldn't have gone out so far, fish." (93)
49- "He tried it once more and he felt himself going when he turned the fish." (77)

The above examples show the particular comparative functioning as numerical. The adjunct So far in the former example indicates a place where the old man should not have gone so as to catch the fish, whereas the comparative quantifier more that is qualified by once indicates his endless attempts to attain the fish.

Examples of Adjuncts as comparatives of quality are also found in the analyzed novel:

50- 'So I had better eat it all although I am not hungry.' (47)
51- 'I had better re-bait that little line out over the stern, he said' (53)
52- 'But he was such a calm, strong fish.' (69)
53- 'Never have I had such a strong fish nor one who acted so strangely.' (38)

In the first two examples, the comparative better is an adjunct, whose referent is not a noun phrase, but the verbs 'eat' and 're-bait'; in the former, it is better to eat the full-blooded fish than to eat a dolphin, as the sun may rot or dry what is left. In the latter example, the old man makes a comparison between two things: he had better to re-bait the line than waiting the fish to come, as he has nothing to eat except the dolphin.
As shown in examples 52 and 53, the other particular comparative *such* functions as a submodifier occurring with the epithets *calm* and *strong*. It is mainly used as an intensifier, indicating an extremely *calm, strong fish*.

2. **Substitution**

Different from reference, substitution is a grammatical relation not a semantic one, a relation in the wording rather than in the meaning; the different types of substitution are defined grammatically rather than semantically. The following is a data-list of the items that occur as substitutes; the list is very short and the frequency data is much less than that of reference.

<table>
<thead>
<tr>
<th>Type</th>
<th>Item</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Substitution</td>
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<td>9</td>
</tr>
<tr>
<td></td>
<td>ones</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>same</td>
<td>7</td>
</tr>
<tr>
<td>Verbal Substitution</td>
<td>do</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>did</td>
<td>6</td>
</tr>
<tr>
<td>Clausal Substitution</td>
<td>so</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>not</td>
<td>7</td>
</tr>
</tbody>
</table>

2.1. Discourse-stylistic effect of substitution

Since substitution is the replacement of one item by another, a substitute is a sort of item that is used in place of the repetition of a particular item. Being a common linguistic usage, substitution appears not only in the surface of a text but also within a text and mainly functions to avoid unnecessary repetition and guarantee the textual cohesion. For example:

54. 'Que va.' The boy said. 'There are many good fishermen and some great *ones*. But there is only you.' (15)

55. 'Today, I'll work out where the schools of Bonita and Albacore are and maybe there will be a big *one* with them.' (22)

In the examples above, both *ones* and *one* occur to refer anaphorically to preceding items in the text just in order to avoid unnecessary repetition, i.e., *one* to 'big fish' in the text and *ones* refers back to 'fishermen' mentioned in the previous sentences. On the one hand, Hemingway uses nominal substitution to perform cohesive function. On the other hand, he tries to give readers new information that Santiago is an expert fisherman not only in Manolin's mind, but also in everything in his real life: his commitment to sailing out farther than any other fisherman has done before, to where the big fish promised to be.

56. 'I do not think I could endure that or the loss of the eye and of both eyes and continue to fight as the fighting cocks *do*.' (55)

The word *do* in the example substitutes anaphorically for the verb *fight*, and it makes the whole sentence not only cohesive but also simple and clear. From another
point of view, this short monologue reflects the old man’s state of mind at that time. What the monologue emphasizes and thereby suggests is the old man’s resolution. He says, "If the fish decides to stay another night I will follow …" and from this point he strengthens his decision. Without the tone or reflection of his speech, Hemingway enforces the sound of the old man’s courage and firmness by intensive words such as 'endure' and 'continue to fight'. Also readers can respect the old man’s 'honour in struggle, defeat, and death'.

57- 'Fish,' he said, 'I love you and respect you very much. But I will kill you dead before this day ends.' Let us hope so, he thought.' (43)

As stated above so substitutes for the whole clause 'kill you dead before this day ends'. Here comes another type of substitution, clausal substitution, in which what is presupposed is not an element within the clause but an entire clause or its opposite meaning. With the old man’s soliloquy, readers can feel that the old man has a feeling of brotherhood with the big fish as well as the creatures in nature appearing in the novel: 'the turtles have a heart, feet and hands like his and the flying fish are his brothers since they play and make jokes with one another.' There is also a oneness between the old man and the big marlin: 'Fish … I love you and respect you very much. But I will kill you dead before this day ends' (p. 43). Just as any noble person can usually recognize nobility towards another person, so does the old man recognize the great nobility of the big fish, his brother in nature, but this does not lessen his determination to be the victor. Yet, the old man’s grateful sense of brotherhood with the creatures in the water and the air serves as a good example of compassion.

3. Ellipsis

Halliday & Hassan (1976, p. 88) interpret ellipsis as "the form of substitution in which the item is replaced by nothing". In other words, it can be seen as a type of substitution where the presupposed element is replaced by a void rather than a pro-form. It contributes to cohesion because it makes the reader "presuppose something by means of what is left out" (Halliday & Hasan, 1991, p. 296). Like substitution, ellipsis has three forms: nominal, verbal and clausal.

Nominal ellipsis occurs within the nominal group. The structure of the nominal group is that of a Head with optional modification; the modifying elements include some that precede the Head and some that follow it, referring to premodifier and postmodifier respectively. The modifier is combined with another structure, on the experiential dimension, which consists of the elements: Deictic, Numerative, Epithet, Classifier and Qualifier.

The elliptical verbal group presupposes one or more words from a previous verbal group. Technically, it is defined as a verbal group whose structure does not fully express its systemic features.

Clausal ellipsis usually means that the whole sentence of clausal element is omitted. In English, it is considered as the expression of the various speech functions, such as statement, question, response and so on. It has two-part structure consisting of modal element plus prepositional element. The modal element, which embodies the speech function of the clause, consists of the subject plus the finite element in the verbal
Grammatical Cohesion: An Application of Halliday's Systemic-functional Grammar to Hemingway's The Old Man and the Sea

group. The prepositional element consists of the complement of the verbal group or adjuncts that may be present. What follows is a frequency data of ellipsis as revealed in the novella:

Table 5. Frequency data of ellipsis

<table>
<thead>
<tr>
<th>Type</th>
<th>Item</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ellipsis</td>
<td>Nominal ellipsis</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>Verbal ellipsis</td>
<td>109</td>
</tr>
<tr>
<td></td>
<td>Clausal ellipsis</td>
<td>53</td>
</tr>
</tbody>
</table>

3.1. Discourse-stylistic effect of ellipsis

According to Halliday and Hasan (1976), "ellipsis is referred to cases in which there is a structural gap that can be completed by reference to a related structure in the immediate, usually preceding context" (p. 142). Ellipsis occurs typically in a dialogue sequence functioning as a cohesive device to guarantee that speakers are concentrating together on a single topic and on the background knowledge relevant to the topic. In Galperin’s (1981) opinion, ellipsis, when used as a stylistic device, always imitates the common features of colloquial language, where the situation predetermines not the omission of certain members of the sentence, but their absence. (p. 232)

To elucidate how Hemingway manages to employ these elliptical patterns as cohesive devices, the following passage is investigated:

"What have you got?" he asked.
"(______)Supper," said the boy. "We’re going to have supper."
"I’m not very hungry."
"Come on and eat. You can’t fish and (______)not eat."
"I have (______)" the old man said getting up and taking the newspaper and folding it.

Then he started to fold the blanket.
"Keep the blanket around you," the boy said. "You’ll not fish without eating while I’m alive."
"Then live a long time and take care of yourself," the old man said, "What are we eating?"
"(______)Black beans and rice, fried bananas, and some stew."

The boy had brought them in a two-decker meal container from the Terrace.

The two sets of knives and forks and spoons were in his pocket with a paper napkin wrapped around each set. . . . .

"I thanked him already," the boy said. "You don’t need to thank him."
"I’ll give him the belly meat of a big fish," the old man said. "Has he done this for us more than once?"
"I think so."
"I must give him something more than the belly meat then. He is very thoughtful for us."
"He sent two beers."
"I like the beer in cans best."
"I know (__________). But this is in bottles, Hatuey beer, and I'll take back the bottles."
"That's very kind of you," the old man said. "Should we eat?"
"I've been asking you to(______)." the boy told him gently. (11-13)

In this passage, Hemingway employs ellipsis to add vividness to the portrait of his characters in the novel; there is 6 ellipsis together. The typical verbal ellipsis and clausal ellipsis are 'I've been asking you to' and 'Black beans and rice, fried bananas, and some stew' respectively. Both of the two sentences should be 'I've been asking you to eat,' and 'We are going to eat black beans and rice, fried bananas, and some stew.'

Here comes another noteworthy thing: in his task of creating real life and real people, Hemingway presents a form as close to the dramatic as possible, with a minimum of explanatory comment. In the present dialogue, for example, such interpolations as 'he said' have frequently been omitted; thus the speech comes to the reader as if he were listening. Another noteworthy aspect in Hemingway's dialogue is his choice of a particular word in almost all passages of dialogue, from the first sentence in the whole novel of 'Santiago,' the boy said … to the last sentence 'I didn't either,' her male companion said. In all, 184 of these 'he said' situations, Hemingway employs the word 'said' 170 times. Even when he uses another word, this happens only when the choice is forced upon him. For example, he uses the verbal 'asked' instead of 'said' for eight times to follow or precede a question, and it could not be avoided to do so. The old man and the boy may mumble, shout or whisper, but according to Hemingway, they 'said', which reflects not only directions, but also Hemingway's typical refusal to draw conclusions for his readers.

4. Conjunction
Halliday and Matthiessen (2004) define conjunction as "a cohesive device which shows how one span of text elaborates, extends or enhances another, earlier span of text" (p. 539). These relations are marked by the use of conjunctive adjuncts (adverbial groups i.e. accordingly, furthermore, nevertheless or prepositional phrases i.e. on the contrary, as a result, in addition) as well as simple adverbs as and, or, nor, but, yet, so, then. Both Halliday & Hasan (1976) and Halliday & Matthiessen (2004) provide elaborate and detailed overviews over the classification of all kinds of conjunction. The present study attempts to explore only the main categories.

The elaborating relation has two subcategories, namely apposition and clarification. Apposition serves to "re-present or restate" an element either by exposition (i.e. in other words, that is) or by exemplifying (i.e. for example, instance, illustrate). Clarification serves to summarize or to make the preceding text appear more specific or in some other way clarified for purposes of the discourse.

The category of extension has the subcategories addition and variation. Addition 'expands' the text; it adds elements to the text using items that are classified as either positive (e.g. and, also ...), negative (nor), or adversative (e.g. but, however, yet...), while variation introduces elements that are in some way presented as 'alternatives' to
what has gone before, and includes items that are either replacive (e.g. instead), subtractive (e.g. apart from that) or alternative (e.g. or, else, alternatively).

The category of enhancement includes those items that are used to show how the elements in a text relate to each other in terms of cause and effect, time and space or what has been discussed elsewhere in the text. The enhancement category has the subcategories spatio-temporal, manner, causal-conditional and matter.

Spatio-temporal conjunctions mark spatio-temporal relations that exist both within the text (how the text unfolds in time) or in the outside world. These are known respectively as internal and external conjunctions. Spatio-temporal conjunctions are further divided into the categories simple and complex, depending on their semantic content. Halliday & Matthiessen (2004) explain that "those that are called 'complex' are the simple ones with some other semantic feature or features present at the same time" (p. 545). For example, the spatio-temporal conjunction next is simple, while next time or next day are complex.

Manner conjunctions have a comparative function and they create cohesion by contrasting an element with something that has been described in the preceding text (and this comparison may be positive i.e. 'is like' or negative 'is unlike') or expanding upon an element with focus on means (e.g. 'thus').

Causal conjunctions can be realized either by items that have a general causal meaning (e.g. therefore, hence, for, consequently), or items that have more specific meanings that express result, reason or purpose. The conditional conjunctions can be positive (i.e. in that case), negative (i.e. otherwise, if not) or concessive (i.e. yet, however). In Halliday and Hasan's view, some of the causal-conditional conjunctions can also be seen as being either external or internal in that they can express both causal relations or conditions in the real world and causes and conditions that lay the premises for the line of argument that is being presented in a given text (1976, 257).

Matter conjunctions create cohesion by linking an element in the text to what has been discussed earlier in the same text. Halliday and Matthiessen comment that "many expressions of matter are spatial metaphors, involving words like point, ground, field; and these become conjunctive when coupled with reference items" (2004, 547). Matter relation is either positive (i.e. there, in that respect) or negative (i.e. elsewhere, in other respect); either expanding on something in the preceding text or contrasting it with something.

Conjunctive elements are cohesive not in themselves but indirectly, by virtue of their specific meanings; they are not primarily devices for reaching out into the preceding (or following) text, but they express certain meanings, which presuppose the presence of other components in the discourse.
Table 6. Frequency data of conjunction

<table>
<thead>
<tr>
<th>Conjunction</th>
<th>Item</th>
<th>External Frequency</th>
<th>Internal Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additive</td>
<td>and</td>
<td>1282</td>
<td>besides 4</td>
</tr>
<tr>
<td></td>
<td>nor</td>
<td>21</td>
<td>thus 4</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td>57</td>
<td>For instance 2</td>
</tr>
<tr>
<td></td>
<td>yet</td>
<td>4</td>
<td>in fact 1</td>
</tr>
<tr>
<td>Adversative</td>
<td>though</td>
<td>26</td>
<td>actually 1</td>
</tr>
<tr>
<td></td>
<td>only</td>
<td>52</td>
<td>instead 5</td>
</tr>
<tr>
<td></td>
<td>but</td>
<td>230</td>
<td>rather 3</td>
</tr>
<tr>
<td>Causal</td>
<td>because</td>
<td>25</td>
<td>for 135</td>
</tr>
<tr>
<td>Temporal</td>
<td>after that</td>
<td>5</td>
<td>soon 12</td>
</tr>
<tr>
<td></td>
<td>First ...then</td>
<td>31</td>
<td>just then 6</td>
</tr>
<tr>
<td></td>
<td>next</td>
<td>8</td>
<td>at this point 1</td>
</tr>
</tbody>
</table>

4.1. Discourse-stylistic effect of conjunction

An accurate breakdown of the novel reveals that the most dominant conjunction word is the additive 'and', which appears 1282 times in the whole novel and whose frequency is secondary to that of neutral demonstrative 'the' in all data analysis. In the passage below, 'and' appears 13 times:

59- The line rose slowly and steadily and then the surface of the ocean bulged ahead of the boat and the fish came out. He came out unendingly and water poured from his sides. He was bright in the sun and his head and back were dark purple and in the sun the stripes on his sides showed wide and light lavender. His sword was as long as a baseball bat and tapered like a rapier and he rose his full length from the water and then re-entered it, smoothly, like a diver and the old man saw the great scythe-blade of his tail go under and the line commenced to race out. (50)

The reason why Hemingway avoids difficult grammatical subordination of ideas is that the flow should be as smooth as possible. Furthermore, as usual, Hemingway wants his readers to make their own connections and therefore uses the conjunctions and 13 times instead of using any other subordinating conjunctions. In other words, Hemingway manages to attain the effect of a movie camera, which snapshots the very tiny details. Also, it is a typical passage of Hemingway’s style to use conjunctions skillfully.

60- 'I had better re-bait that little line out over the stern,' he said. 'If the fish decides to stay another night I will need to eat again and the water is low in bottle. I don’t think I can get anything but a dolphin here. But if I eat him fresh enough he won’t be bad. I wish a flying fish would come on board tonight. But I have no light to attract them. A flying fish is excellent to eat raw and I would not have to cut him up. I must save all my strength now. Christ, I did not know he was so big.' 'I’ll kill him though,' he said. 'In all his greatness and his glory.'
Grammatical Cohesion: An Application of Halliday's Systemic-functional Grammar to Hemingway's The Old Man and the Sea

Although it is unjust, he thought. **But** I will show him what a man can do and what a man endures. 'I told the boy I was a strange old man,' he said. 'Now is when I must prove it.' (53)

Here comes another obviously conscious choice: the frequent placement of the coordinating conjunction as a sentence beginner. For this purpose, Hemingway uses 'but' 179 times, 'and' 25 times, 'because' 3 times, 'or' 6 times and 'nor' twice in the whole novel. Actually, Hemingway uses the coordinator 'but' more often to begin a sentence than to join parts of a sentence. Furthermore, this monologue reflects the old man’s state of mind. With the help of the three *buts* in the above passage, Hemingway shows readers that the old man is humble, yet he exhibits a justified pride in his abilities. His knowledge of the sea and its creatures like flying fish, and of his craft, is unequaled and helps him preserve a sense of hope regardless of circumstances. Throughout his life, Santiago has been presented with contests to test his strength and endurance, though it is beyond his imagination: "Christ, I did not know he was so big." Still the old man makes his decision 'I'll kill him … in all his greatness and his glory.' In this way, Hemingway confirms his proverb 'pride as a source of greatness and determination.'

While it is certainly true that Santiago’s eighty-four-day run of bad luck is an indignity to his pride as a masterful fisherman, and that his attempt to bear out his skills by sailing far into the gulf waters leads to disaster, Hemingway does not condemn his protagonist for being full of pride. On the contrary, Santiago stands as a proof that pride motivates men to greatness. Because the old man acknowledges that he killed the mighty marlin largely out of pride, and because his capture of the marlin leads in turn to his heroic transcendence of defeat, pride becomes the source of Santiago’s greatest strength. Without an awful sense of pride, that battle would never have been fought, or more likely, it would have been abandoned before the end.

61- 'The moon did not rise now until late and he had no way of judging the time. **Nor** was he really resting except comparatively.' (63)

The conjunctive *nor* is also additive; in this data, the person cannot predict when the sun will arise, because the moon does not rise as usual.

62- How did I let the fish cut me with that one quick pull he made? I must be getting very stupid. **Or** perhaps I was looking at the small bird and thinking of him.

The conjunctive *or* is part of simple additive relation (alternative). In this example, the conjunctive *or* connects both sentences as an alternative answer to what would happen next.

63- He did not remember **when** he had first started to talk aloud **when** he was by himself. He had sung **when** he was by himself in the old days and he had sung at night sometimes **when** he was alone steering on his watch in the smacks or in the turtle boats. He had probably started to talk aloud, **when** alone, **when** the boy had left. But he did not remember. *When* he and the boy fished together they usually spoke only **when** it was necessary. They talked at night or **when** they were storm-bound by bad weather. (29)
As mentioned before, Hemingway tends to use the subordinate conjunctions 'when', 'while' and 'as' to denote two or more actions which are merely coordinate at the same time. For instance, 'when' in this passage appears 9 times and most of them are of temporal coordination type. The simple use of Hemingway’s word-constructions of 'when' parallels the other simplicity of the hero in his novel: the old man is lonely and silent, so readers not only learn but also wonder when and why the old man developed his habit of talking to himself without any reason. It shows the loneliness of the hero. In addition, with the help of so many 'whens', the majority of sentences are long and declarative, arranged in a straightforward sequence determined by the internal logic of the action or situation. These different types of conjunctive relation function as cohesive devices rather than elementary logical relations that are expressed through the structural medium of coordination. Hemingway uses this temporal device to simulate the naturalness of speech, in which sentences often begin with coordinating words.

On the basis of the sixty-three citations and analysis above, the study comes to the conclusion that grammatical cohesive devices not only function as a cohesive link from semantic and logical perspectives but also create cohesive ties available in the discourse. It is of great importance to appreciate grammatical cohesion in the whole text, and the identification of them should not be neglected in linguistic activities. What follows is a general statistical table, which clarifies the frequency of each category of grammatical cohesion, putting them in order according to their recurrent usage in the whole text:

<table>
<thead>
<tr>
<th>Item</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference</td>
<td>6933</td>
<td>75.78 %</td>
<td>1</td>
</tr>
<tr>
<td>Conjunction</td>
<td>1915</td>
<td>20.93 %</td>
<td>2</td>
</tr>
<tr>
<td>Ellipsis</td>
<td>248</td>
<td>02.71 %</td>
<td>3</td>
</tr>
<tr>
<td>Substitution</td>
<td>52</td>
<td>0.58 %</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>9148</td>
<td>33.88 %</td>
<td></td>
</tr>
</tbody>
</table>

A thorough analysis of the novella demonstrates that grammatical cohesive devices are used in a large amount in this 27,000-word story. As the findings implied, grammatical cohesive devices do affect the construction of the whole novel as they represent one-third of the structure as a whole. Reference is a basic device indicating the highest portion among all grammatical cohesive devices with (6933 tokens). The frequency of instances has been demonstrated in the following chart:
Grammatical Cohesion: An Application of Halliday's Systemic-functional Grammar to Hemingway's The Old Man and the Sea

Figure 1: the relative frequency of referential cohesive devices

Figure 1 reveals that the majority of referential cohesion is composed of personals with 3685 of all instances that is 53 %, compared to demonstratives which are applied less frequently, namely 2971 tokens as 43 % of the total. Comparatives have the lowest frequency; the overall number of comparatives is 277 accounting for only 4 % of all examples collected.

As for personal reference, the frequency of the third person he indicates the highest number, (namely 1166) among other pronouns, and others like him, his, she, her, it, they, them, their exceed the number of first person pronouns including I, me, my, we, us, our. The first and the second person pronouns are essentially exophoric; they are defined as roles in the speech situation, whereas the anaphoric third person pronouns are the most frequent case referring to nouns that appear immediately in the preceding sentence to make a semantic linkage within the text. Moreover, the use of third person reference in the nominative group is more frequent than that of possessive determiners as revealed in Table 1 In contrast, cataphoric reference is an infrequent type device; yet it is an important text forming element because it makes the reader search for the necessary information, and it creates a sort of curiosity on the part of the reader to grasp the message being communicated.

With regard to gender, masculine pronouns as he, his and him are the most frequent with 1166, 438, 225 occurrences respectively, compared to those feminine references. This depends on the characters that are depicted in the text not on something in particular. The principal characters in the chosen novel are male represented in the old man and the boy. Even when Hemingway used the feminine pronouns she and her, this is only to refer to non-human entities such as the female fish in the sea.

As for demonstratives, the corpus analysis is carried out to determine that the neutral article the indicates the highest frequency among all other referential cohesive devices as 34 % of the total, namely 2365 tokens. As far as place deixis is concerned, the most common occurrence is of the demonstratives showing some kind of distance that, there and the use of references indicating proximity this, here is not so frequent in this novella. As for the time deictic expressions, now is not greatly frequent than then. This may reflect the continuity of the situation; two days and nights pass with Santiago holding onto the line. The old man continues to struggle with the giant marlin, which fiercely resists for three days. Probably, the demonstratives indicating distance help Hemingway to create a story based on his Iceberg Theory which
suggests revealing one-eighth part of the story and leaving the most of the story for the interpretation of the reader.

Comparatives occur in two groups: general and particular. General comparatives indicate likeness, similarity or difference. Yet, they do not demonstrate a significant occurrence in Hemingway's novel. Apparently, it can be noticed that the use of comparisons creates vivid and more expressive language of the text. Only by simple language and style, very complicated themes and ideas are detected. The simplicity in Hemingway's novel is his remarkable feature.

Conjunctive elements come a second after reference with 1915 occurrences as 20.93% of the total grammatical cohesion. The type of conjunctive relation found in the novella are as follows, additive, adversative, causal and temporal. Conjunctive elements are cohesive not in themselves but directly, by virtue of their specific meanings; they are not primarily devices for reaching out into the preceding (or following) text, but as Halliday & Hasan (1976) suggest, "they express certain meanings which presuppose the presence of other components in the discourse" (p. 266).

Ellipsis and substitution, as fascinating linguistic possibilities, involve leaving out certain linguistic elements and yet conveying the meaning of the elliptically dropped element. Used as a device or component of style by a great writer, however, ellipsis intimates extra layers of meaning as well. Rendering ellipsis as a stylistic feature is to let the reader experience the author's style as closely as possible.

III. CONCLUSION

This study has offered an overall analysis of the grammatical cohesive devices in the novella. There are four categories of grammatical cohesion: reference, ellipsis, substitution and conjunction. Reference is the basic device, instead of being interpreted semantically in its own right; it falls into exophoric and endophoric reference in situational and textual context. At grammatical level, reference can be divided into personal, demonstrative and comparative reference. Substitution as the replacement of one item by another and ellipsis as the omission of an item essentially can be divided into three categories: nominal, verbal and clausal.

Moreover, conjunctions are those cohesive devices that express further meanings by presupposing the presence of other components into the discourse. Four conjunctions have been investigated: additive, adversative, causal and temporal conjunction. These four categories belong to the grammatical aspect of cohesion.

Having analyzed grammatical cohesion, the aim of the present research has been fulfilled in accordance with the objectives presented in the introductory part of this study: to reveal, classify and analyze cohesion in Hemingway's novella *The Old Man and the Sea*; to show the relative frequency of grammatical cohesive devices in the text under analysis. Finally, the following conclusions have been made:

First, the analysis and the findings suggest that wherever there is a cohesive device, there is usually cohesive linking. The study also indicates that the analysis of cohesive devices does open one more possible way for the anatomy of the structure of a piece of complete discourse. How cohesive devices are used and how they function as a
cohesive linking in different discourses may help unfold the hidden implications of the writing style. The study attempts to combine a discourse-stylistic approach to the cohesive devices and the classic work *The Old Man and the Sea*. It also aims to show to English learners that examining the language of a literary text could be a means to a fuller understanding and appreciation of the writer's artistic achievement as well.

Secondly, special attention is given to the implications of the study, particularly to the teaching of English as a foreign language, and the discussion is devoted to considering how what has been analyzed and investigated affects the appreciation of literary work and the teaching of reading, lexis and writing. In short, there are three implications: shedding insight into understanding literary texts, helping a new method for teaching reading, and exploring a new method for teaching lexis.

REFERENCES

APPENDIX

1. Personal referential devices:

been seeing black spots before his eyes and the sweat salted his eyes and the sweat salted his eyes and salted the cut over his eyes and salted the cut over his eye and on his forehead. He

He is making the far part of his circle now, \'94\loch\f39 he

The strain will [86] shorten his circle each time. Perhaps in

with sweat and tired deep into his bones two hours later. But

the cut over his eye and on his forehead. He was not afraid

\loch\f39 I must hold his pain where it is, he

matter. I can control mine. But his pain could drive him mad }

\dbch\af31505\loch\f39 ater with his left hand and put it on his

jerking on the line he held with his two hands. It was sharp and

He is hitting the wire leader with his spear, he [87] thought. That

more and each time he shook his head the old man gave up a

could with his body and his legs. His old legs and shoulders

\loch\f39 After he judged that his right hand had been in the

of the fresh line cuts and shifted his weight [84] so that he could

weight [84] so that he could put his left hand into \hich\af39

and he would vomit and lose his strength. When his face was

and lose his strength. When his face was cleaned he

his face was cleaned he washed his right hand in the water over

\941\loch\f39 \hich\f39 he said to his left hand. \931\loch\f39

and gently. He used both of his hands in a swinging motion

pulling as much as he could with his body and his legs. His old

as he could with his body and his legs. His old legs and

ready, and he picked it up with his left hand and ate it chewing
Demonstrative referential devices:

forehead. He was not afraid of the black spots. They were
veat salted his eyes and salted the cut over his eye and on his
tension that he was pulling on the line. T \ich\af39\ spots. They were normal at the tension that he was pulling
lack spots before his eyes and the sweat salted his eyes and
shorter now and from the way the line slanted he could tell the
much shorter now and from the way the line slanted he
\loch\f39 For an hour the old man had been seeing
ay the line slanted he could tell the fish had risen steadily while
as a great temptation to rest in the bow and let the fish make
nd as the fish swam just below the surface the old man could
ue water. It raked back and as the fish swam just below the
could see his huge bulk and the purple stripes that banded
h swam just below the surface the old man could see his huge
and a very pale lavender above the dark blue water. It raked

But he was that big and at the end of this circle he came
ook so long [89] to pass under the boat that he could not
\dbch\af31505\loch\f39 the man saw his tail out of water
end of this circle he came to the surface only thirty yards
he would have a chance to get the harpoon in.\rltch\fcs1 \af0\ sun. On each calm placid turn the fish made he was
\t try for the head. I must get the \par \}pard \rpar\aj \l0\ri0\ \rquote \loch\f39 t try for the head. I must get the \par
from something else besides the sun. On each calm placid

But we will fish together now for I still have much to
any kind. He was past everything now and he sailed the skiff to
on her course. He sailed lightly now \ich\af39\dbch\af31505\ and bow well the skiff sailed now there was no great weight
shore. He knew where he was now and it was nothing to get
feel he was inside the current now and he could see the lights
\loch\f39 I cannot be too far out now, he thought. I hope no one
so they would take the pain now and would not flinch and

He had seen the second fin now coming up behind the first,
flattened, shovel-pointed heads now and their white tipped wide
did not want to look at the fish now. Drained of blood and
the brain. It was an easy shot now and he felt the cartilage
there was nothing to be done now.\rvltch\fcs1 \af0\afs24
\loch\f39 \ich\f39 Every minute now you are closer to home.
to eat than the bonito. But, then, nothing is easy.} and wiped it on his trousers. Then he shifted the heavy line sardine and tossed it over. Then he worked his way slowly thought. This part of it anyway. Then too, remember he . He let his hand dry in the air then grasped the line [73] with it great bursting of the ocean and then a heavy fall. Then he were feeding smoothly. Just then the fish jumped} fish that his cheek had crushed. Then he was on his knees and the ocean and then a heavy fall. Then he jumped again and onto it in the early dark and then the other lions came and have made salt, he thought. But then I did not hook the dolphin left hand resting on the gunwale. Then he leaned over the side nst the wood of the bow. Then he passed the line a little line tight in his right hand and then pushed his thigh against glimpse of vision that he had. Then\ichaf39\dbchla\af31505\ . But there was no hatchet and then there was no knife. fish had been ruined too badly. Then something came into his the sky before the moon rises. Then they were steady to see it to an oar butt, what a weapon. Then we might have fought 2. Comparative referential devices:

He tried it again and it was the same. So he thought, and he

[92] Twice more it was the same on the turns.} , and the stripes showed the same pale viol \ichaf39\ brain and he hit him again in the same place while the shark punched the shark exactly in the same spot again. He still hung into the air and return into the same hole they had made in the \dbchla\af31505\lochaf39 when same of the filaments would his eyes and they were the same color as the sea and it and the other lines at the same time for the fish might the oars to make a drag at the same time. I had

up or down. Then came the same delicate pulling touch
Conjunctions:

his head. Then he put more **on** and rubbed the back of his

\quote

\loch\f39 Il be up **soon** and I can last. You have to last.
\loch\f39 ater with his left **hand** and put it on his head. Then he

hit the wire several times **more** and each time he shook his

fish stopped beating at the **wire** and started circling slowly again.

\loch\f1 The Old Man and the Sea}{\tich\fcs1 \af0\t}

\t\loch\f39 temptation to rest in the **bow** and let the fish make one circle

on the circle and then stand **up** and work on him when he

He kneeled against the **bow** and, for a moment, sl \hich\af39

while he goes out on the **circle** and then stand up and work on
\hich\f39 I could not fail **myself** and die on a fish like this,\'94\t

will say a hundred Our Fathers and a hundred Hail Marys. But I

, he had felt faint and **dizzy** and that had worried him.

and salted the cut over his **eye** and on his forehead. He was

ice, though, he had felt faint and dizzy and that had worried

. It may make him jump **though** and I would rather he stayed

the opening of the hook **wound** and he can throw the hook.

. It was sharp and **hard-feeling** and \hich\af39\dbch\af31505\t

then he felt a sudden **banging** and jerking on the line he held

with his two hands. It was sharp and **hard-feeling** and \hich\af39\t

\quote \loch\f39 s **eye** and the two gray sucking fish

were each over three feet **long** and when they swam fast they

im. His dorsal fin was **down** and his huge pectorals were

dark blue water. It raked **back** and as the fish swam just below

old man could see his huge **bulk** and the purple stripes that

\loch\f39 harpoon long **before** and its coil of light rope was in

moving out too fast and too **far**. But perhaps I will pick up [34] a

his lines straight up and **down**. But he crowded the current a

more force in the evening **too**. But in the morning it is painful.

of the clouds over the **land**. But the bird was almost out of

ivy or poison oak can **give**. But these poisonings from the }

They were immune to its **poison**. But men were not and

on the surface of the **water** but some patches \hich\af39\t

place or even an **enemy**. But the old man always thought

love her say bad things of **her** but they are always said as

She is kind and very **beautiful**. But she can be so cruel and it

jack that had been used **before**; but they were in good condition

new day. It is better to be **lucky**. But I would rather be exact.

. Only I have no luck any **more**. But who knows? Maybe today.
\hich\af39\dbch\af31505\loch\f39 But, he thought, I keep them

line around my toe to wake me. But today is eighty-five days

see the green of the shore **now** but only the tops of the blue

the albacore that were **feeding**. But they are working far out and

moment he felt him stop **moving** but the weight was still there.
\dbch\af31505\loch\f39 t know. But \hich\f39 \quote \loch\f39 \loch\f39 **the line** **fast**. But then he could break it. I

other baits were still in the **water** but there was nothing to be