

A Comparison of Lexical Ties in the English Story Books Written by Natives vs. Non-Natives

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Abstract: *Every text type, including written texts as well as spoken texts, needs to possess some degree of go togetherness and coherence. One way to create the text coherence is to use lexical ties which have the capability of relating the parts of a text semantically. In this corpus-based study, the researcher investigated the use of lexical ties in English story books written by a native English speaker as opposed to a non-native English language user. Based on the research goals, the researcher selected two short stories, i.e. Aaron Trow and Amy Foster as the native and non-native corpus of the study, respectively. Then, he used Halliday and Hasan's (1976) concept of cohesion and taxonomy of cohesive ties for analyzing the samples of lexical ties and compared both short story writers' use of lexical ties through the use of Kruskal Wallis test. The results indicated that except for the use of synonyms, the two short stories were significantly different in repetition, use of general words, super-ordinates, and collocation as elements establishing lexical ties. The research findings of the present study have a number of implications for language instructors and non-native authors.*

Keywords: *short story, lexical ties*

1. INTRODUCTION

The major goal of the present study is to investigate the amount of lexical ties in English story books written by a native English speaker as opposed to a non-native English language user. As a matter of fact, this study manifests a relationship to discourse study and the use of specific discourse markers by authors using their native language and non-native language while producing written texts. That is, the researcher tries to examine the two types of lexical ties, i.e. reiteration and collocation, used by the writers of two different speech communities sharing a common language. That is, one uses English as his first language and the other writer uses English as a second language.

Establishing a relationship between two interlocutors has always been of concern to the language teachers and researchers. This relation may not be so difficult when the interlocutors are communicating through spoken discourse. However, when we are concerned with written discourse, the problems may arise if the text lacks some amount of go togetherness of the elements underlying it. Written texts, like spoken texts, need to possess some degree of coherence. One way of creating coherence is to use lexical ties. Lexical ties have the capability of relating the parts of a text semantically (Halliday & Hassan, 1976). In this study it is attempted to answer the following research question and accept or confirm one of the hypotheses:

Research question: Does the use of lexical ties vary in English short stories written by natives versus non-natives?

Null hypothesis (H₀): The use of lexical ties does not vary in English short stories written by natives versus non-natives.

Alternative hypothesis (AH): The use of lexical ties varies in English short stories written by natives versus non-natives.

2. REVIEW OF THE RELATED LITERATURE

2.1. The Way Cohesion is Achieved

One of the outstanding characteristics of a text is the concept of texture. Halliday and Hasan (1976) consider texture as a property which gives unity to the text with respect to its environment. Text can be defined with reference to the concept of cohesion. In this case, a text is a passage of discourse which is coherent either with respect to the context of situation or with respect to itself. However, these authors added the fact that the two conditions are necessary for the concept of text.

Beaugrande and Dressler (1981, as cited in Bloor & Bloor, 2007) introduced seven standards of textuality:

1. Cohesion: the ways the words are connected in sequence.
2. Coherence: the outcome of cognitive relations, such as mutual knowledge between the participants in the discourse.
3. Acceptability: the form of the text in terms of appropriateness to the cultural setting and the way in which it is received by those taking part.
4. Intentionality: the text procedures' discourse purpose, goals or plan.
5. Informativity: how far the degree of information transmitted is more or less suitable for the receivers in the circumstances.
6. Situationality: the factors which make a text relevant to the situation in which it occurs.
7. Intertextuality: the way in which a text relies on previous texts for its form and references and the ways in which it may incorporate other texts.

According to Halliday and Hasan (1976), the concept of cohesion is a semantic one and refers to the relations of meaning that exist within the text, and that define it as a text. They believe that cohesion occurs where the interpretation of some element in the discourse is dependent on that of another. The one presupposes the other, in the sense that it cannot be effectively decoded except by recourse to it. Halliday and Hasan (1976) assume that when this process happens, a relation of cohesion is set up, and the two elements are integrated into a text. Thus, the concept of cohesion needs to be studied in detail. Eggins (1994) described different types of cohesion as being lexical cohesion, reference, conjunction and conversational structure. Eggins (1994, p. 95) defined the reference as follow:

The cohesive resource of reference refers to how the writer/speaker introduces participants and then keeps track of them once they are in the text. Participants are the people, places, and things that get talked about in the text.

She further identified references as either being homophoric or exophoric. Whereas the former reference item can be retrieved from the general context of culture, the latter is usually derived from the immediate context of situation.

The second factor through which the cohesion of a text is achieved is referred to as lexical relations. The cohesive resource of lexical cohesion, as stated by Eggins (1994), is the ability of writer/speaker in using lexical items such as nouns, verbs, adjectives and adverbs and also event sequences, in providing consistency within the text. Eggins (1994) believes that lexical relations can be of taxonomic or expectancy type. In the case of taxonomic lexical relation, "one lexical item relates to another through either class/sub-class...or part/whole... relations (p.101)". In

contrast, “expectancy relations require a predictable relation between a process (verb) and either the doer of that process, or the one offered by it ... (p.101)”.

Moreover, Eggins (1994) introduced a third type of relation, namely conjunctive relations, which refers to how the writer creates and expresses logical relations between the parts of a text. In the case of conjunction relation, Eggins (1994) followed Halliday’s (1985) classification and considered conjunctive relations as being elaboration, extension or enhancement type.

In addition to references, lexical and conjunctive relations, Eggins proposed a fourth type of cohesive marker which is entirely allocated to the texture in spoken interaction. This type of relation which is called conversational structure is described by Eggins (1994) as how the interactants negotiate the exchange of meanings in dialogue and involves two components. The two components are the choice of speech functions and the type of exchange structure.

Halliday and Hasan (1976, p. 226) categorized cohesive ties into five different categories. In fact, they identified five different types of cohesion: reference, substitution, ellipsis, conjunction and lexical cohesion. They, also, defined cohesive ties as follows:

- ✓ References are deictic markers which point or refer to parts of discourse. To establish references we may use some lexical items including pronouns, demonstratives and comparatives (Halliday & Hasan, 1976).
- ✓ Substitution refers not to a specific entity but to a class of items which involve in replacing a class of items with another similar class of items (Halliday & Hasan, 1976).
- ✓ Ellipsis can be thought of as a zero tie because the tie is not actually said. One feature that ellipsis shares with substitution is that they can be used to create ties to nominals, verbals, and clauses (Halliday & Hasan, 1976).
- ✓ Conjunction is the fourth type of cohesive ties and includes such elements as additives, adversatives, causal's, and temporal (Halliday & Hasan, 1976).

Halliday and Hasan (1976) refer to the fifth type of cohesive ties as lexical ties which can relate parts of a text by repetition, synonym, super-ordinate and general words.

2.2. Lexical Ties

Meaning cannot be conveyed only through grammatical relations. What is required and needed in this part is to review lexical relations as well. One important issue in classification and categorization of lexical ties is that lexical ties have been classified differently by different authors. For instance, Firth (1957 & 1968 as cited in Martin, 1992) approached lexical meaning from two perspectives: context and collocation.

It needs to be mentioned that Halliday and Hasan’s (1976) categorization of cohesive ties which is an umbrella term for lexical ties has been collapsed and later on in 1985 they introduced repetition, synonym, antonym, hyponymy and meronymy as the elements of lexical ties. This was not an end in the study and categorization of lexical ties because Halliday (1985, as cited in Martin 1992) considered repetition and collocation as distinct categories, and grouped together synonymy, antonymy, meronymy and hyponymy under a general heading of synonymy. Lexical relationship was also renamed by Martin (1992) as ideational meaning and was categorized into four general types of lexical ties which can establish lexical relations in written as well as spoken discourse.

In this study, the researcher considers lexical ties under two general headings: reiteration and collocation. Halliday and Hassan (1976, p. 278) define reiteration as:

... a form of lexical cohesion which involves the repetition of a lexical item, at one end of the scale; the use of a general word to refer back to a lexical item, at the other end of the scale; and a number of things in between- the use of a synonym, near-synonym, or superordinate.

Nunan (1993) also categorized lexical ties of reiteration type into the following issues. Types and examples of reiteration are presented here (the examples are taken from Nunan, 1993):

- ✓ Repetition

What we lack in a newspaper is what we should get. In a word, a popular newspaper may be the winning ticket.

- ✓ Synonym

You could try reversing the car up the slope. The incline isn't all that steep.

- ✓ Superordinate

Pneumonia has arrived with the cold and wet conditions. The illness is striking everyone from infants to elderly.

- ✓ General Word

A: did you try the steamed buns?

B: Yes, I didn't like the things much.

The second type of lexical tie is the collocation. Collocation, which is one of the most problematical parts of lexical cohesion, refers to the association of lexical items that regularly co-occur (Halliday & Hasan, 1976). Moreover, as stated by Richards and Schmidt (1992), collocation relates to the way in which words are used together regularly. As Richards and Schmidt (1992) exemplify collocation, in English the verb *perform* is used with *operation*, but not with *discussion*.

The doctor performed the operation.

Any discourse which can take the form of a written and spoken text requires the use of such elements as lexical ties. That is, the use of reiteration and collocation is needed for creating a coherent discourse. However, Halliday and Hasan (1976) discuss the fact that there is not a case of there being particular lexical items which always have a cohesive function. In other words, the cohesive function is not created totally with the use of specific lexical items; rather cohesion can be established only by reference to the text. Generally, as stated by Halliday and Hasan (1976), it is the occurrence of the item in the context of related lexical items that provides cohesion and gives to the passage the quality of a text.

3. THE STUDY

3.1. The Corpus of the Study

Two English short story books were analyzed in this study. One of the story books which is named *Amy Foster* is written by Joseph Conrad a Polish author. Conrad wrote this story book in English in 1901. It was first published by Illustrated London News (December 1901), and was collected in *Typhoon and Other Stories* (1903). The story is about a Polish immigrant, called Yanko Goorall, who was shipwrecked on the shores of Kent, England. He is treated as a mad man and is imprisoned by the locals and is not able to speak English. Finally, a man called Mr. Swaffer gives him a job. As a result, he learns to speak English, and falls in love with Amy Foster, who was a kind English girl. Finally, they marry and have a son. Several months later, Yanko falls ill and, suffering from a severe fever, begins to talk frantically in his native language. Amy is frightened and takes their child and run away. The following morning, Yanko dies of heart failure. It is revealed that he had simply been asking, in his native language, for water. The character of Yanko Goorall shares some similarities with Conrad himself. Yanko's fever is based on an actual incident which occurred during Conrad's honeymoon. Conrad reverted to his native Polish when in fever and at first his wife was scared. The book is believed to reflect Conrad's own social alienation in English society.

The second short story is Anthony Trollope's *Aaron Trow*. It is a short story published in 1861 together with some other story books in 'Tales of All Countries'. This short story is about an English convict, Aaron Trow, who was sent to the penal colony at Bermuda under a life sentence for murder. He escaped from prison and hid in a remote cave. As nobody could find him, the search for him was abandoned. After a lot of search, Aaron who was hungry could find means to leave the island. He broke into the isolated cottage of Anastasia Bergen, demanding food and money. Since Anastasia was terrified by his appearance and manner, she prepared food for him, but when she failed to provide money he attacked, and nearly murdered her before help came.

Caleb Morton, Anastasia's fiancé at the risk of his life, cornered Trow in his cave and in the sea killed him.

3.2. Criteria for Corpus Selection

This research is a kind of corpus study. Van-Doorslaer (1995) pointed out that the criteria for corpus selection are often either random or textually motivated. Following what Van-Doorslaer (1995) stated, the researcher used the two criteria for selecting native and non-native English short story books. First of all, the researcher limited the type of text to English short story books only. Then, the next stage was to select two short stories, one written by an English author and one English short story written by an author whose native language was not English.

However, the process of corpus selection was not restricted to such general criteria and it inspired the researcher to take some minor steps as well. As a matter of fact, the researcher attended to specific short story-related criteria for corpus selection. By short story-related criteria, the researcher refers to those specific features of every short story which may affect the author and the audience of the short stories. The first criterion was to focus on the native language of the authors of the short stories. As the major challenge of the present study was to investigate the occurrence of lexical ties in English short story books written by natives vs. non-natives, the researcher needed to attend to the native language of the authors. The researcher selected Joseph Conrad as the non-native English author whose first language was Polish. In contrast, the English short story book written by a native author has been selected from Anthony Trollope's books.

Furthermore, the second criterion for corpus selection was related to the length of short story books. As the researcher of this study used Halliday and Hasan's (1976) taxonomy for estimating the frequency of lexical ties, he had to regard the length of the short story books as an important tool for estimating the number of lexical ties. Thus, the researcher limited the selected short story books with approximately similar length. The non-native English short story book consisted of approximately 12,477 words. Besides, the native English short story book contained a total of 12,322 words. Having finished the data collection procedure, the researcher analyzed the frequency of the use of lexical ties in English short story books written by natives vs. non-natives.

3.3. Procedures of Data Collection

The researcher of this study made an attempt to compare the amount of lexical ties used in English short stories. In fact, he studied the use of lexical ties in two short stories; one written by a native English speaker and the other short story written by a writer whose native language was not English. For this purpose, he selected *Amy Foster* which is a short story written by Joseph Conrad a Polish author. The other short story is *Aaron Trow* written by Anthony Trollope an English writer. Moreover, he investigated the type of lexical ties in English short stories written by natives versus non-natives.

The two short stories have communalities in their length and stage. The length is important since the analysis of lexical ties is highly related to the length of the two stories. In order to estimate the use of lexical ties, the researcher used Halliday and Hasan's (1976) concept of cohesion and taxonomy of cohesive ties for analyzing the samples of lexical ties. Later on, the researcher compared the native and non-native short story writers' use of lexical ties through the use of Kruskal Wallis test.

3.4. Data Analysis

This study possessed two variables; one independent variable and one dependent variable. The independent variable was categorical in nature and involves two categories; that is, one category was being native and the other one was being non-native. Besides, the dependent variable of this study consisted of the amount of lexical ties used by the two authors. In this content analysis study, the Kruskal Wallis test was used to compare the native and non-native short story writers' use of lexical ties. It is important to note that the Kruskal Wallis test is used when we have one independent variable with two or more levels and an ordinal dependent variable.

4. FINDINGS

4.1. Analyzing Native and Non-Native English Short Stories

This section is mainly concerned with determining the use of distinct lexical ties in the native English short story called *Aaron Trow* and non-native English short story named *Amy Foster* as two short stories written by Anthony Trollope and Joseph Conrad, respectively. In fact, the researcher did attempt to analyze the two short stories in terms of the use of reiterations (i.e. repetition, synonym, super-ordinate, and general word) and collocation. Presumably, the researcher attempted to estimate the frequency of five types of lexical ties, in these short stories. All these lexical ties will be separately analyzed and discussed in this section.

4.2. Repetition as a Lexical Tie in Native and Non-native English Short Stories

Repetition, which is defined by Halliday and Hasan (1976) as the repeating of the same word that has the same reference on all occasions of use, has been analyzed deeply and compared fully in both Anthony Trollope's *Aaron Trow* and Joseph Conrad's *Amy Foster*. As indicated by Halliday and Hasan (1976), in repetition we should consider the article 'the' which is accompanied by the repeated word. Thus, the researcher considered every detail of the descriptions about the repetition of lexical items and analyzed the two corpora. For the purpose of estimating the repetition of lexical items, the researcher calculated the number of repeated items which have been accepted as lexical cohesion markers and presented the results in Table 1.

Table 1. Repetition as a Lexical Tie in Native and Non-Native Corpora

Repetition as a lexical tie	Native Short story		Non-native short story	
	Frequency	Per T-unit	Frequency	Per T-unit
Immediate ties	63	0.13	34	0.06
Remote ties	98	0.20	55	0.09

According to the findings of the research which are shown in Table 1, the available corpora presented the use of both immediate lexical ties and also remote lexical ties. In fact, the authors of both native and non-native short stories created immediate as well as remote lexical cohesion. The results show that the frequency of immediate ties is 63 lexical items per 12,322 words used in the native corpus. Moreover, the researcher used Halliday and Hasan's (1976) idea in estimating the density of lexical ties in a text. Based on what stated by Halliday and Hasan (1976), cohesive ties' density can be anticipated by counting the mean number of cohesive ties per T-units. Thus, considering the number of T-units in the native English short story book which was 482 T-units, the researcher found out that 0.13 repetition has taken place per T-unit. However, these findings were related to the immediate repetition; in contrast, remote repetition was more frequent and the author of this corpus used 0.20 lexical repetitions per T-unit.

The same estimations have been conducted on the non-native English short story, *Amy Foster*. The number of repeated lexical items in this corpus was 34 and 55, respectively. Besides, the researcher found 0.06 and 0.09 lexical ties per 603 T-units.

Here is an example of repetition in *Aaron Trow* as the native short story; in fact, this repetition is considered as an immediate repetition which took place within a single T-unit:

There had been courage in the doing of the deed, and probably no malice; but the deed, let its moral blackness have been what it might, had sent him to Bermuda, with a sentence against him of penal servitude for life.

Another example of the repetition of the lexical items which has been created in the native short story was realized in remote t-units. The two t-unites have been separated from each other by eleven other T-units in between.

Some years ago, soon after the prison was first established on its present footing, three men did escape from it, and among them a certain notorious prisoner named Aaron Trow.

They did escape from the establishment into the islands, and though two of them were taken after a single day's run at liberty, Aaron Trow had not been yet retaken even when a week was over.

Likewise, repetition has been experienced in Joseph Conrad's *Amy Foster*. As an instance, Joseph Conrad used the lexical item true in a single T-unit.

If it's true, as some German fellow has said, that without phosphorus there is no thought, it is still more true that there is no kindness of heart without a certain amount of imagination.

Moreover, the author of this short story repeated 'farm' in two separate and remote T-units to establish lexical cohesion in the short story. The examples are as follows:

New Barns is an isolated farmhouse a mile away from the road, and she was content to look day after day at the same fields, hollows, rises; at the trees and the hedgerows; at the faces of the four men about the farm, always the same - day after day, month after month, year after year.

She would help her mother to give their tea to the younger children, wash up the crockery, kiss the little ones, and go back to the farm.

The words *farm* in the two examples have been separated from each other through the use of five T-units.

4.3. Synonym as a Lexical tie in Native and Non-native English Short Stories

The second type of lexical tie which has been analyzed in this study was the use of synonym by both native and non-native English authors. As a result, the researcher calculated the frequency of synonyms with reference to the total number of words used in each short story. The researcher, further, computed the mean number of lexical ties per T-unit. The results are presented in Table 2.

Table 2. *Synonym as a Lexical Tie in Native and Non-Native Corpora*

Synonym as a lexical tie	Native Short story		Non-native short story	
	Frequency	Per T-unit	Frequency	Per T-unit
Immediate ties	21	0.04	15	0.02
Remote ties	13	0.03	19	0.03

The above table indicates the results of one type of reiteration which takes the form of synonyms. According to the findings of this study, the author of the English short story used 21 synonyms within the same T-units. Based on this frequency estimation, the researcher calculated the mean number of synonyms per T-units. The results show that 0.04 synonyms have been used per T-unit. Besides, the frequency of the use of synonyms in remote T-units has been estimated and a frequency of 13 synonyms has been reported. Respectively, the researcher found 0.03 synonyms per T-units.

Similar calculations have been used to estimate the frequency of synonyms per total number of words and also T-units. Like the results of the native short stories, the findings of non-native short stories are presented in Table 2. This table shows that the author of non-native short story used 15 synonyms in immediate T-units and 19 synonyms in remote T-units. Afterwards, the researcher found the frequency of synonyms in relation to the number of T-units. The results show that 0.02 and 0.03 synonyms have been used in the native and non-native English short stories, respectively.

Some examples of the use of synonyms in immediate and remote T-units are given in the following paragraphs. As it is shown, Anthony Trollope has used *road* and *path* as synonyms in a single T-unit.

On the left of the road the land is cultivated in patches, and here, some half mile or more from the ferry, a path turns away to Crump Island.

Also, he used *land* and *ground* as two other lexical items which share the property of being synonym in two remote T-units.

As the main road approaches the ferry it runs through some rough, hilly open ground, which on the right side towards the ocean has never been cultivated.

On the left of the road the land is cultivated in patches, and here, some half mile or more from the ferry, a path turns away to Crump Island.

Besides, the researcher of this study presents some examples regarding the use of synonyms in non-native short stories. The first example contains *big* and *enormous* as two lexical items which bear the property of being synonym.

Raised above our heads upon the sky-line, it loomed up against the red sun, triumphantly big, enormous, like a chariot of giants drawn by two slow-stepping steeds of legendary proportions.

Furthermore, the words *land* and *ground* have been considered as synonyms with 10 T-units in between. In other words, the researcher considered these two words as remote lexical ties. The example is:

Beyond the sea-wall there curves for miles in a vast and regular sweep the barren beach of shingle, with the village of Brenzett standing out darkly across the water, a spire in a clump of trees; and still further out the perpendicular column of a lighthouse, looking in the distance no bigger than a lead pencil, marks the vanishing-point of the land.

There were some who sold their huts and their land because it cost a lot of money to get to America; but then, once there, you had three dollars a day, and if you were clever you could find places where true gold could be picked up on the ground.

4.4. Super-Ordinate as a Lexical Tie in Native and Non-Native English Short Stories

The third type of reiteration which was a kind of lexical tie was the use of super-ordinate which are the name of specific class of items. In this section, the researcher presented the results of the findings of estimating super-ordinate in the two distinct corpora used in this study, i.e. native and non-native short stories.

Table 3 shows that the number of immediate super-ordinates used in native and non-native short stories were same, i.e. 17. Also the estimation of immediate super-ordinates per T-units in the two corpora, i.e. native and non-native short stories, were close and 0.035 and 0.028, respectively. This table also gives information about the use of super-ordinates in remote T-units. The frequency of the use of super-ordinates in native short stories is 19 and its frequency per T-units is 0.04; in contrast, the non-native short story reveals the frequency of 11 super ordinates and a mean number of 0.02 per T-units. The results of data analysis are presented in Table 4.

Table 3. Super-Ordinates as a Lexical Tie in Native and Non-Native Corpora

Super-ordinates as a lexical tie	Native Short story		Non-native short story	
	Frequency	Per T-unit	Frequency	Per T-unit
Immediate ties	17	0.035	17	0.028
Remote ties	19	0.04	11	0.02

In this part, the researcher presents an example of super-ordinate in *Aaron Trow* as the native short story written by Anthony Trollope; in fact, this is an example of immediate super-ordinate in which the word *men* is the super-ordinate form for the lexical item *prisoner*.

The prisoners are, of course, white men, and the lower orders of Bermuda, among whom alone could a runaway have any chance of hiding himself, are all negroes; so that such a one would be known at once.

Also, the researcher found the same super-ordinates in two remote T-units. The example of remote T-unit is as follows:

The prisoners are, of course, white men, and the lower orders of Bermuda, among whom alone could a runaway have any chance of hiding himself, are all negroes; so that such a one would be known at once.

Some years ago, soon after the prison was first established on its present footing, three men did escape from it, and among them a certain notorious prisoner named Aaron Trow.

Similarly, super-ordinate has been used in *Amy Foster* authored by Joseph Conrad. For instance, this author used the terms canaries and bird to establish a kind of lexical tie within a single T-unit.

Smith, to their dogs, cats, canaries; and as to Mrs. Smith's gray parrot, its peculiarities exercised upon her a positive fascination. Nevertheless, when that outlandish bird, attacked by the cat, shrieked for help in human accents, she ran out into the yard stopping her ears, and did not prevent the crime.

Besides, he established a cataphoric reference between super-ordinate word *woods* and lexical item *trees*. The example is presented in the following paragraph and is created by four T-units in between.

He was so different from the mankind around that, with his freedom of movement, his soft - a little startled - glance, his olive complexion and graceful bearing, his humanity suggested to me the nature of a woods creature.

The light blur of smoke, from an invisible steamer, faded on the great clearness of the horizon like the mist of a breath on a mirror; and, inshore, the white sails of a coaster, with the appearance of disentangling themselves slowly from under the branches, floated clear of the foliage of the trees.

4.5. General Words as a Lexical Tie in Native and Non-Native English Short Stories

According to Halliday and Hasan (1976), general nouns are a small set of nouns having generalized reference within the main noun classes including nouns which are related to human (people, person), non-human animate (creature), inanimate concrete count (thing, object), inanimate concrete mass (stuff), inanimate abstract (business, affair, matter), action (move), place (place), and finally fact (question, idea).

Based on the general word classes given by Halliday and Hasan (1976), the researcher analyzed both native and non-native English short stories. The results of this analysis are presented in Table 4.

Table 4. *General Words as a Lexical Tie in Native and Non-Native Corpora*

General words as a lexical tie	Native Short story		Non-native short story	
	Frequency	Per T-unit	Frequency	Per T-unit
Immediate ties	111	0.23	125	0.21
Remote ties	29	0.06	36	0.06

As shown in this table, the author of non-native English short story outperformed the native author in using general words in establishing cohesive ties. In fact, the results of this table show that the frequency of the use of immediate general words in the native English short story was 111 per 12.322 words. Besides, he used 29 general words in establishing lexical ties beyond the boundaries of T-units. The amount of such immediate and remote general words per T-units was 0.23 and 0.06, respectively.

Moreover, the researcher analyzed the use of general words in the non-native corpora. The results which are presented in Table 4 show that the frequency of general words' use were 125 and 36 in immediate and remote T-units. The amount of general words per T-unit was 0.21 in immediate T-units and 0.06 in remote T-units.

The following example is about the use of a kind of general word used by Anthony Trollope in his English short story called *Aaron Trow*. In this example the author tries to establish a lexical relation by the lexical item *question* and relate it to *how the battle might have gone*.

His life was saved; but it may be a question how the battle might have gone had not that friendly oar been raised in his behalf

The remote lexical tie has been created by the word *idea* and an already stated expression which is presented here:

It was not only that they desired to inflict punishment on the miscreant in accordance with the law, but also that they did not desire that the miserable man should die in a hole like a starved dog, and that then they should go after him to take out his wretched skeleton. There was something in that idea so horrid in every way, that all agreed that active steps must be taken.

The following two examples are presented to show the use of general words in non-native English short story written by Joseph Conrad in *Amy Foster*. As it is shown, the word *thing* is lexically related to *house of water*.

They thought they were being taken to America straight away, but suddenly the steam-machine bumped against the side of a thing like a house on the water.

Also, the author of this short story created a remote lexical relation by binding *thing* to an expression which has been separated from its reference by about 4 T-units in between.

I have been telling you more or less in my own words what I learned fragmentarily in the course of two or three years, during which I seldom missed an opportunity of a friendly chat with him.

The next thing we know of him for certain is that he had been hiding in Hammond's pig-pound by the side of the road to Norton six miles, as the crow flies, from the sea.

4.6. Collocation as a Lexical Tie in Native and Non-native English Short Stories

In this section, the researcher presents the findings of research on analyzing the use of collocations in both native and non-native short stories. As pointed out by Halliday and Hasan (1976) and stated in chapter two, collocation is considered as one of the most problematical part of lexical cohesion and refers to the association of lexical items that regularly co-occur. Like previous lexical ties which were studied both in immediate and remote sentences, collocation has been analyzed deeply and with full attention. In fact, the researcher analyzed the collocation patterns both within the same sentence and across sentence boundaries.

The results of the analysis of the use of collocation in both short stories are given in Table 5. According to the findings of Table 5, the author of the English short story used 167 collocations within the same sentences. Based on this estimation, the researcher calculated the mean number of collocations per T-units. The results show that 0.35 collocations have been used within the sentences of the native short story. Besides, the frequency of the use of collocations in remote sentences was estimated. The results of this analysis show that 119 collocations were available in remote T-units. Based on this finding, the researcher estimated that 0.25 remote collocations per T-units have been used.

Likewise, similar calculations were used to estimate the frequency of collocations per total number of words and also T-units in non-native short stories. The results which are presented in Table 5 show that an average of 108 collocations per 12,477 words has been used by the non-native short story author. Also, remote ties in the non-native short story have been created by 99 collocations. The amount of collocations per T-unit was 0.18 among immediate sentences and 0.16 in remote sentences (see Table 5).

Table 5. Collocation as a Lexical Tie in Native and Non-Native Corpora

General words as a lexical tie	Native Short story		Non-native short story	
	Frequency	Per T-unit	Frequency	Per T-unit
Immediate ties	167	0.35	108	0.18
Remote ties	119	0.25	99	0.16

The following instances of the use of collocations give a clear picture of both immediate and remote collocation use both in native and non-native short stories. In *Aaron Trow*, the author used *considerable* as a collocation pair for portion. Furthermore, the next example shows the use of

day and *hour* as collocating each other. This is the same as the example given by Halliday and Hasan (1976).

For a considerable portion of the way there are no houses lying near the road, and there is one residence, some way from the road, so secluded that no other house lies within a mile of it by land.

Not if a certain friend of mine would come down and see me of evenings when I'm alone after the day. It seems to me that I shouldn't mind waiting as long as I had that to look for.

Women don't get into trouble as men do, and do not want anyone to help them. If you were done in the house you would have to go to bed without your supper, because you could not make a basin of boiled milk ready for your own meal. Now, when your reverence has gone, I shall go to work and have my tea comfortably.' And then he did go, bidding God bless her as he left her. Three hours after that he was disturbed in his own lodgings by one of the negro girls from the cottage rushing to his door, and begging him in Heaven's name to come down to the assistance of her mistress.

Besides, the researcher selected the following examples as presenting immediate and remote collocation-use in the non-native short story. In fact, the immediate tie is established by the word *getting* and *accepted*. Also the remote tie is shown by *float* and *sea*.

He himself had a great difficulty in getting accepted, and the venerable man in uniform had to go out of the room several times to work the telegraph on his behalf.

It is possible that a man (supposing he happened to be on deck at the time of the accident) might have floated ashore on that hencoop. He might. I admit it is improbable, but there was the man - and for days, nay, for weeks - it didn't enter our heads that we had amongst us the only living soul that had escaped from that disaster. The man himself, even when he learned to speak intelligibly, could tell us very little. He remembered he had felt better (after the ship had anchored, I suppose), and that the darkness, the wind, and the rain took his breath away. This looks as if he had been on deck some time during that night. But we mustn't forget he had been taken out of his knowledge, that he had been sea-sick and battened down below for four days, that he had no general notion of a ship or of the sea, and therefore could have no definite idea of what was happening to him.

4.7. Comparing the Use of Lexical Ties in Native and Non-native Short Stories

In order to compare the frequency of lexical ties in native and non-native English short stories, the researcher of this study provided a summary of the results of computation of five types of lexical ties in the two corpora (see Table 6).

Table 6. *Comparing Lexical Ties in Native and Non-Native English Short Stories*

Types of lexical ties	Native short stories		Non-native short stories	
	Frequency	Per T-unit	Frequency	Per T-unit
Repetition	161	0.33	89	0.15
Synonym	34	0.07	34	0.05
Super-ordinate	36	0.75	28	0.048
General word	140	0.29	161	0.27
Collocation	286	0.60	207	0.34
Total lexical ties	657	2.04	519	0.858

Besides, in order to test the existence of a significant difference between native and non-native English short stories in terms of the use of five distinct types of lexical ties, i.e. repetition,

synonym, super-ordinate, general word, and collocation, the researcher used Kruskal Wallis test. The results of the test are presented in Table 7.

Table 7. Kruskal Wallis Test to Compare the Use of Lexical Ties in Native and Non-native English Short Stories

	Chi-square	Df	Asymp. Sig.
Repetition	249.00	1	.000
Synonym	.000	1	1.000
Super-ordinate	63.00	1	.000
General word	300.00	1	.000
Collocation	492.00	1	.000
Lexical ties	1175.000	1	.000

According to the findings of research reported in Table 7 ($p= 0.00>0.05$), and regarding the use of four types of lexical ties, i.e. repetition, super-ordinate, general word and collocation, it is obvious that the authors did show significant differences. In other words, the author of native English short story and also the writer of non-native English short story were not similar in repeating, using super-ordinates and general words and also expressing collocation of words. However, the results of Kruskal Wallis test show that the two authors were not akin in giving synonyms ($p= 1.00>0.05$).

Regarding the total use of lexical ties, the author of native English short story differed from the author of non-native English short story ($p= 0.00>0.05$). That is, the results of Kruskal Wallis test show a significant difference in the two English short stories.

5. DISCUSSION

The researcher reviewed the related literature and categorized it in to two subcategories. In the first stance, he described and explained those researchers' findings that were interested in analyzing and describing the characteristics of short stories, linguistic elements and lexical features available in every short story. That is to say, he focused on presenting the research activities which analyzed elements of short stories, such as plots, characters, theme, point of view and conflicts. Moreover, he considered those researches that emphasized analyzing specific linguistic elements including grammatical or lexical ones.

Additionally, he reviewed a group of studies which had using short stories in the classroom as their central attention. Presumably, such studies were emphasized because of analyzing the potential effect of short stories in learning and teaching context. In this section, the researcher will discuss the findings of the present study and compare them with those of other researches.

The first lexical tie studied and analyzed in this study was the repetition of lexical items. The results showed that the two short stories, i.e. *Amy Foster* and *Aron Trow*, were not similar in the use of repetition and the native English author outperformed the non-native author in repeating lexical items. The next lexical tie which reported a significant difference in its use was referred to as super-ordinates. In fact, the research findings showed that the native author used more super-ordinates in comparison with a non-native English author. The use of general words was also analyzed by the researcher and the results showed that the non-native English author did not use as many general words as the native author. The last lexical tie which was used differently by the two authors was collocation. As before, the author of native short story, Anthony Trollope, used more collations than Joseph Conrad. However, the two authors were not different in the use of synonyms and their short stories were similar regarding the number of synonyms. Generally, the two short stories, i.e. native and non-native English short stories were different in terms of the use

of lexical ties. That is, the native English author used more lexical ties in comparison with the non-native author.

In a research conducted by Lee (2003), the same results have been achieved. In fact, Lee (2003) studied Chinese students' L1 and EFL writing and concluded that there was a remarkable difference in connector density. As the non-native English author of this study who used lexical ties to create cohesion in his text, Chinese colleague students do the same. In his study Zhang (2000) reported that Chinese college students employed a variety of cohesive ties in their English compositions, among which lexical category had the highest percentage, followed by the categories of reference and conjunction.

Also, one study was conducted in Iranian context by focusing on the use of cohesive ties in IELTS writing tasks. In this study Majdeddin's (2012) results after analysis of the data indicated that overt instruction is a predictor of success in the use of cohesive ties in IELTS writing tasks. In fact, non-native Iranian EFL learners used cohesive ties in their English language. This is the same as using lexical ties by non-native English authors.

This study has pedagogical implications for all the stakeholders in the realm of EFL context. Some of such people and organs who are affected by the results of this study will be discussed in this section. It was the availability of such implications which motivated the progress of this paper.

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