

A Contrastive Study of Lexical Cohesion in Introduction in Research Articles: Native English and Iranian Applied Linguistics

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Abstract

This study intended to contrast the frequency and density of the use of different types of lexical cohesion in introduction part of native English and Iranian applied linguistic research articles. The framework utilized for the analysis of lexical cohesion was the one employed by Halliday and Hasan (1976) in cohesion in English. Forty introduction parts of native English and Iranian applied linguistic articles; twenty from each group were selected. For contrastive analysis, the SPSS software was used. The results revealed some similarities and differences in the use of lexical cohesion sub-types in introduction part of native English and Iranian applied linguistic research articles in terms of frequency and density of utilization of sub-types of lexical cohesion. The statistical tool of the t-test was used to determine whether there was a significant difference among the lexical cohesion devices in both groups of native English and Iranian texts. Based on these findings, the frequency of sub-types of lexical cohesion was (Rept, Gen, N, Coll, Syn, Hypo, Ant, And Mero) in native English texts, while the frequency Iranian texts was (Rept, Gen, N, Coll, Syn, Ant, Mer and Hyp). Both native English and Iranian texts exhibited a general tendency in using repetition, general noun and collection but metonymy and antonym were the least used sub-categories in Iranian texts. The results indicated that there were statistically significant differences in the use of lexical ties in introduction part of native English and Iranian applied linguistic research articles. Regarding the density of the texts, the analysis indicated that introduction part of native English applied linguistic articles was denser than their corresponding Iranian ones. This study might have implications for teachers and researchers in the field of teaching English as a foreign language because of the fact that teaching sub-types of lexical cohesion to foreign language learners will improve the quality of their reading and writing.

Keywords: lexical cohesion, introduction, native English, Iranian, applied linguistics

INTRODUCTION

Research article is a kind of non-fiction text deals with a particular subject or professional activity (Hornby, 1999). The research article is usually written in specific language form and specific register. The word choice is not common word, but it is more

scientific word that based on the professional field. The concept of cohesion can therefore be usually supplemented by that of register. According to Halliday (1976) register is constituted by linguistic features that are typically associated with a configuration of situational features of a text concerning with external factors which are affecting the linguistic choice that the speaker or writer makes. It means that a register can be defined as a configuration that associates with a situation type. So, the reader can understand with the topics about based on the register of professional field.

Publishing importance is considered being prominent at the present time to the extent that numerous writers reified the magnitude. For instance, Malekzadeh, Mokari and Azarmina (2001) deemed that research articles and scientific publications are the main indicators of the scientific status of a country as well as of the desirable status in the world. They can exchange knowledge among members of the academic community (Flowerdew, 1999).

Halliday and Hasan (1976) see lexical cohesion as being formed of two aspects: Reiteration and collocation, under reiteration, include repetition, metonymy, hyponymy, antonym and general word (1976). Collocation is achieved through the association of lexical items that occur in the same environment regularly (1976). Halliday and Hasan (1976) provide a semantic description for concept of cohesion emphasizing the relations of the meaning units existing within the text. According to Halliday and Hasan (1976) cohesion is a semantic relation between an element in the text and some other element that is crucial to the interpretation of it. The cohesion refers to relation of meaning that exists within the text. It is a semantic relation among elements of the text makes a text meaningful. Lexical cohesion is the cohesive effect achieved by selection of vocabulary (Halliday & Hasan, 1976). It means the selection of vocabulary builds the connection within the text and makes relation between lexical cohesion and cohesion.

Lexical cohesion in Iranian EFL contexts needs further research since the official language of Iran is Persian. Cohesion with its important role in text processing and understanding does not receive its due attention. Iranian EFL students become familiar with cohesive markers through separate during long time of their studies from secondary school up to the university. And because of this separateness in their EFL education they have problems to understand connectedness and relations of sentence elements in written discourse. These challenges expose students to some dilemmas in written or spoken discourse. It is suggested that if sufficient time and energy be devoted to the teaching and organizing of lexical cohesion explicitly, then there must be positive outcomes in the future.

Iranian writers of English often have difficulty in writing their scientific articles and getting them published. Iranian English-major students, due to their weakness in general English, which influence their academic success, cannot communicate handle English after graduating from university (Maleki & Zangani, 2007).

Furthermore, there are very few writing courses designed for the university students, with actual problems in both language skills and writing skills, to help such students

write their articles and notes to an acceptable standard (Maleki & Shokrpour, 2007). Writing skills are even more problematic than language skills among Iranian students.

The use of cohesion ties as a means to enhance the coherence of any expository text plays an important role in the comprehensibility of the text on the part of the researchers. A successful communication of any written text depends highly on the appropriate use of cohesive and coherent devices. So the aim of this research is to conduct a comparative study between how native English and Iranian university scholars use cohesion devices in the introduction of their applied linguistic research articles. The usage of these lexical cohesion in terms of cohesiveness are also depends on the context where the writer put themselves in, the researchers discovered that the context which engaged the respondents determined the type of lexical cohesion used in their easy writing. In terms of textual coherence, the researcher identified that lexical cohesion also related with textual as the types of lexical cohesion used engaged with the surrounding which the writers operated in.

As asserted by Yunus and Harris (2014) the differences between writer's classification and the readers understanding depends on how they understood it.

- Writing is quite a difficult skill to be learned among SLL as second language is an official or societally main language used by minority group participants or immigrant who speaks other language natively. It is normally used for education, occupation or other basic resolve (Saville, 2012).
- Hence, it is beneficial for the learners to be introduced more about the usage of this lexical cohesion in producing more quality writing. As lexical cohesion provides the variety or diversity in creating better sentences, it will also help the learners to base their readers without losing track of the ideas transmit by the writers.

However, the teachers should also create awareness to the learners about the overused of certain types of lexical cohesion which might distract the readers to continue reading their writing. Teachers and students should concentrate on how to apply the lexical cohesion in producing a better writing. It should be stressed more during the lesson and the focus should not be on just one type, but the variety types it. Thus, it is recommended that other researchers in the future should focus more on this area as well as it is also a part of lexical cohesion and it might produce different result if it is analyzed in some other prospect.

With regard to the importance of academic publication in English of Iranian scholars know the current problems in this regard hence improve publication. The results of this study can be used as a basis for a theoretical description of lexical cohesion in Persian. Moreover, they can be utilized for pedagogical and translation purpose.

REVIEW OF LITERATURE

After the publication of cohesion in English, the concept of cohesion was applied to different field such as stylistic, discourse analysis, language teaching and learning, translation studies, psycholinguistics and sociolinguistics. Take language teaching, psycholinguistics and translation studies for example, in the fields of language teaching, many scholars have investigated cohesion in language teaching (e. g. Maccarthy, 1991; Carter, 1994; Lix, 1999; Zhang & Lix, 2003; Hyland, 2005; Rost, 2005; Zhang, Miao & Li, 2005). In the field of psycholinguistics, many scholars study the use of cohesion in discourse production and comprehension (e. g. Garrod & Sadford, 1999, Sanford & Garrfod, 1994).

Carrel (1982) explained that in her view, text cohesion is not necessarily a textual property that is manifested by means of grammatical or lexical connective ties, but rather that cohesion is an outcome of coherence when readers of text are able derive the connectivity of ideas from their knowledge of the world (and text schema). Carrell further reported that when readers are able to connect text? Ideas without relying on explicit devise, explicit cohesion, and explicit cohesive ties are not needed to unify text's ideas. Halliday and Hassan (1976) did not consider issues of language pedagogy in their research. Carrel (1982) further explained that in teaching L2 writing and Composition to native and non-native speakers, cohesive should play a secondary role instruction an organizing the flow of ideas in a text.

Similarly, McCarthy (1991) commented that matters of cohesion and cohesive devices usually play an important role in English texts and that they need to be explicitly taught in L2 reading and writing instruction. He pointed out that demonstrative pronouns and nouns associated with enumeration and causative resultative relationships of ideas in text require special attention from L2 teachers and learners.

McCarthy also reported that many non-native speakers have difficulty understanding how cohesive and logical ties are constructed in text and L2 instruction need to address the lexical means of marking causative and resultative relationships, which learners may find confusing. Scott (1996) also underscored the importance of teaching L2 linguistic and lexical means of cohesion in writing text because L2 learners often transfer from L1 to L2 rhetorical and syntactic device for constructing unified text, even when proximate cohesion devices cannot be found L2 in.

Halliday and Hasan (1976) provided two major subclasses of lexical cohesion: Reiteration and collocation: Reiteration includes five subclasses: same item, synonym or near synonym, super- ordinate item and a general item. Similarly, cutting (2008) identified four subclasses: repetition, synonyms, super- ordinates, and general words. Write and Fairley (1981) securitized Halliday's and Hassan's (1986) taxonomies in relation composition and writing research.

Hoey (1991) developed the notion of lexical cohesion by introducing simple and complex system of repletion. Unlike Halliday and Hasan (1976) who were interested in the categories and classification of cohesion Mehrabi (2014) compared the textual links or lexical cohesive enlisted in the psychological abstract from Persian and English

articles. The frame work serving for analyzing lexical cohesion markers was derived from Halliday and Hasan (1976). The results revealed that lexical links of synonymy and repetition were more frequent than other cohesive devices in both English and Persian abstracts. The findings revealed that the university students majoring in the psychology journals. This findings revealed that university students majoring in the psychology field indicated a greet tendency towards the use of repetition, as a lexical cohesive subtypes in writing abstracts. The results of this study may also have some implication for improving proficiency in the reading comprehension of students because if learners become aware of the textual specifications of different texts utilizing different links of textuality, and more specifically different lexical devices, they may be able to interact with and comprehend the text with less difficulty. Alotaibi (2015) used taxonomies of cohesive ties presented by Halliday and Hasan (1976).

They are two prominent works in presenting detailed and thoughtful analysis of repetition occurrence in text. The model deals with lexical and its subclasses, namely, repetition, synonymy, metonymy, hyponymy, general item and collocation. The results showed that the paper that received the lowest rating in terms of the writing quality was the one that included the largest number of repetition occurrences of the same type. This study concluded by arguing that repetition may not be considered as monolithic, and suggested that every type of repetition needs to be examined individually in order to determine what enhanced and what deteriorates the writing quality. Theoretical framework of the present study was based on Halliday and Hasan's lexical cohesive including reiteration and collocation. According to Halliday and Hasan (1976) reiteration can be categorized into repetition, synonymy, antonym, hyponymy and metonymy and general nouns.

1. Repetition

Repetition is a sort of lexical cohesive marker that repeat a constituent in a text.

e.g: Ali met a bear. The bear was bulgy.

2. Synonymy

This was created by the selection of a lexical item that is in some way. Synonymous with the proceeding one.

e.g: What people want from the government is frankness. They should explain to the Bulic (Hoey, 2000).

3. Hyponymy (Specific- General)

It was a relationship between two words, in which the meaning of one the words includes the meaning of the other.

e.g: A flamingo lives in water. This bird is white. (Halliday, 1976).

4. Metonymy

This results from the selection of a lexical item that was in some sense in part- whole relationship with a preceding item.

e.g: I live in a large house. The yard is full of trees. (Haliday, 1976).

5. Antonym

In this type of lexical cohesion, cohesion came about by the selection of an item an item which was opposite in meaning to a preceding lexical item.

e.g: I usually wear dark colors. I don't look nice in light colors. (Rynckman, 2004)

6. General nouns

In this type of cohesion two items had the same referent.

e.g: Military actions against Iraq was not successful. The mores were illegal. (Yarmohammd, 1999).

7. Collocation

This type of lexical cohesion results from the association of lexical items that regularly Co-occurred.

e.g: Jam spent three hours in the garden yesterday. He was digging potatoes.

METHOD

Corpus of the study

The data consisted of introduction part of 40 native English and Iranian applied linguistics research articles (20 from each one). Native English and Iranian applied linguistic research articles randomly selected from journals.

Data analysis procedure

The use of lexical cohesion in introduction parts of both native English and Iranian applied linguistic research articles will be identifies and marked. To concern a t-test was used. Then they were analyzed based on Halliday and Hasan's framework (1976). All texts content analyzed and compared on-by one in order to investigate the frequency and density of the lexical cohesion sub-types use in introduction parts of native English and Iranian applied linguistic research articles for three months. Finally the data will be analyzed by SPSS software.

RESULTS

The findings revealed some similarities and differences in the use of lexical cohesion sub- types, in both corpora, in terms of frequency and density, the t-test was run to determine whether there was a significant difference among the lexical cohesion of sub-types in both groups. The statistical analysis was done in order to determine the density of both texts. The results of findings indicated according to tables 1.

Table 1. Percentage of frequency of lexical cohesion sub-types in introduction parts of native English and Iranian applied linguistic.

	Re	Syn	Hyp	Mero	Anto	Goen	Coll
Number of sub-types in introduction parts of native English applied linguistic research articles	86.8	187	37	18	23	295	20
Percentage of frequency in introduction parts of native English applied linguistic research articles.	17.36	3.74	74	0.36	4	5.26	5.14
Number of sub-types in introduction parts of Iranian applied linguistic research articles	92.2	125	12	14	30	263	319
Percentage of frequency in introduction parts of Iranian applied linguistic research articles.	18.9	2.52	0.24	2.28	0.6	6.38	526

Table1 shows the average percentages of lexical cohesion in introduction parts of English native and Iranian applied linguistic research articles. As it is displayed in tables 1, repetition is the most frequency used sub- type of lexical cohesion in native English texts.

The next frequent lexical cohesion devices are general noun, followed by collocation, synonymy, hyponymy, antonym and metonymy, respectively. It is clearly that, like English texts, repetition is the most frequent sub- type, employed in the Iranian texts. However, general noun, collocation, synonymy, antonym, metonymy and hyponymy are sub-types with lower frequencies. Both native English and Iranian texts revealed general tendency toward the use of repetition lexical cohesion sub- type more than others, surprisingly, the average number of repetition in Iranian texts is considerably higher than that of native texts (922 Vs. 868). In both texts, antonym seemingly plays minor role in producing cohesion.

However, synonymy is used more frequency in native English texts compared with Iranian texts (187 Vs. 126). General noun is used more frequently in Iranian text compared with native English ones (319 Vs. 295). Ultimately, the frequency of collection is almost the same in both native English and Iranian texts (280 Vs. 263).

In order to determine whether the differences between the frequencies of lexical cohesion sub- types in introduction part of native English and Iranian applied linguistic research articles is statistically significant; a t-test was run. According to table 1, the results of t-test revealed that there is a statically significant difference between lexical cohesion devices in both native English and Iranian texts in terms of synonymy, hyponymy and metonymy.

Table 2. Results of t-test

	Re	Syn	Hyp	Mero	Anto	Goen	Coll
Lerene's test for quality of variance F	0.629	5200	9.886	0.009	0.017	0.0975	
Sig	0.433	0.028	0.008	0.927	0.897	0.330	3.011
t-test for Equality	0.624	0.007	0.056	0.001	0.795	0.585	0.65
Sig (2- tailed)	0.624	0.007	0.073	0.003	0.796	0.585	0.883
Df	38	38	38	38	38	38	38

As the figures in table 2, indicated in the case of synonymy, metonymy and hyponymy the differences are statistically significant. The densities of lexical cohesion in both text were determined by dividing the total number of lexical ties in each language by the total number of it seems that introduction part of native English and Iranian applied linguistic research articles exhibit a general tendency toward the use of repetition un this tests, however, Iranian texts were characteristically different because they used a higher density of repetition unlike native English texts on the contrary in native English texts, synonymy was more frequent than its corresponding occurrence in Iranian texts. In native English texts the order of lexical cohesion was repetition, general noun, collocation, synonymy, hyponymy and metonymy. While in Iranian texts it was repetition, general noun, collocation, synonymy, antonym, metonymy and hyponymy with decreasing percentages of occurrence, respectively. So the second hypothesis of the study is partially rejected in that there are no significant differences in introduction part of native English and Iranian applied linguistic research articles in terms of frequency of lexical cohesion sub-types.

To see whether the differences between the mean percentages of lexical cohesion sub-types in introduction part of native English and Iranian research articles sentences (According to Halliday and Hasan formula). The obtain figures are 34.16 and 33.72 for native English and Iranian texts, respectively. By running a two- tailed – test, it become clear that the difference was statistically significant. Thus native English texts are denser than their corresponding Iranian ones.

DISCUSSION AND CONCLUSION

The findings of this study indicated that, the order of sub-types of lexical cohesion in introduction part of native English are (Rep, Con, Coll, Syn, Hyp, Ant, and Mero) and in Iranian texts the order of numbers of lexical cohesion are (Rep, Gen, Coll, Syn, Ant, Mer and Hyp.). Thus the first hypothesis of the study which is there are similarities and differences in introduction part of native English and Iranian applied linguistic articles regarding to number, degree, and type of sub- types of lexical cohesion is confirmed. Both groups are similar in types and degree but there are differences in numbers are statistically significant or not, for each case of two- tailed t-test was run, the results showed that in synonymy, metonymy and hyponymy the differences are statistically significant ($p < 0.05$).

The density of lexical cohesion in the text was determined by dividing the total number of lexical cohesion ties in each language by the total number of sentences in that language. The obtained figures are 33.72 and 34.16 for the Iranian and English texts, respectively. By doing two-tailed test, it becomes clear that the difference is statistically significant. Thus, English texts are denser than their corresponding Iranian ones. So the third hypothesis of the study is rejected in that there are no significant differences in density of sub- types of lexical cohesion in introduction part of native English and Iranian applied linguistic research articles.

However, to part emphasis on the results, it is worthwhile to present other writer's research results about lack of proficiency in Iranian linguistic research articles. Amirian, Kassaian and Tavakoli (2008), for instances, compared the discussion sections of English journals and professional Persian journals. The results revealed considerable difference across the three corpora regarding the generic features under investigation. Finding of the investigation of discourse markers in descriptive compositions of 90 Iranian students that was done by Jalilifar (2008) showed that Iranian students employed discourse markers with different degrees of occurrence.

Results also revealed that graduate students used more discourse markers, and this led to more cohesive and qualitative texts. A research conducted by Fallahzadeh and Shokrpour (2007) was conducted with EFL writing problems university Iranian students face when writing their report. Yarmohammadi and Saddigh (1995) also conducted a similar study in which the aim was to determine the frequency of different types of lexical cohesion in English and Persian journalistic political texts. The results revealed that all lexical cohesion devices in English texts had a higher frequency than Persian texts. Mehrabi (2014) compared the lexical cohesion in the psychological abstract written by Persian and English writers. The results revealed that lexical links of synonymy and repetition were more frequent than other cohesive devices in both English and Persian abstracts.

In general, based on what mentioned above, learning academic writing is necessary for Iranian writers. These scholars must know that there are a lot of factors that can lead to this weakness. For example, they may have poor reading skills that prevent them from writing about something that they have read. They may need to improve their knowledge of words and grammar. Above all, as the results of this study indicated, higher level skill of cohesion must be reinforced.

This study, in line with other studies regarding text analysis of articles (e. g. Adnan, 2009; Arvani, 2006; Ansari & Babaii, 2009; Amirian, Kassain & Tavakoli, 2008, Jalilifar, 2008; Lillis & Curry, 2006) intended to analyze Iranian and English native articles according to seven general categories of cohesion proposed by Halliday and Hasan (1976). In this research Similar to other studies writing system of two languages was compared. The results indicated that in sub- types of repetition, general noun and collection, Iranian writers and native writers acted similarity. However, findings reveled native writers extra use of synonymy, antonym, metonymy and hyponymy compared with Iranian writers. Through analyzing twenty articles, to be exact, writing system of two languages some problems of Iranian scholars were known. This research is optimistic about helping novice Iranian scholars to be acquainted with their positive aspects and negative aspects so as to solve their problems. On the whole, if it is supposed that cohesion can be made only through Halliday and Hasan (1976) seven general categories, Iranian scholars are suggested to use all the elements of the lexical cohesion in their writing more to make their article more and more cohesive.

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