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A CORPUS-BASED STUDY OF CONJUNCTIVE COHESION IN PAKISTANI RESEARCH ARTICLES

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Abstract

Conjunctive cohesion is an indispensable linguistic signpost that writers use to create a logical relationship between the parts of the text (Halliday and Hasan, 1976). In the present study, the conjunctive analysis of Pakistani Social Science Articles (PSSA) has been carried out. This study is corpus-based, and the corpus comprised 250 articles that were taken from five Social science disciplines: Applied Linguistics (AL), English Literature (EL), Business Administration (BA), Sociology (SL), and Psychology (PL). The distribution of 50 articles from each discipline had been retrieved from online sources. The frequencies of conjunctive features (CFs) were counted and compared, and conjunctive features (CFs) were studied functionally. A comprehensive model on conjunctive cohesion (CC) has been proposed for the classification of cohesive devices. The results revealed that all the writers used extension conjunction more frequently than other conjunctions. Additive cohesion, a sub-category of extension conjunction, was used more frequently across the academic writings of all disciplines in general and discipline of EL in particular. The sub-categories of elaboration and enhancement conjunction, exemplification and causative, were also found to be used more frequently in addition to the additive cohesion. Consequently, it was concluded that the academic writings of EL had high frequencies of conjunctive cohesion, and various categories of conjunctive cohesion were used to serve certain purposes. This study has practical implications for social science teachers and scholars in addition to EFL/ESL students.

Keywords: Conjunctive analysis, Pakistani Social Science Articles (PSSA), corpus-based

1. Introduction

A text has "linguistic features which are often known as adding to its total unity and giving it texture" (Halliday & Hasan, 1976, p.1-2). What makes texture is a latent cohesive association between cohesive items. Cohesion can be the distinctive factor between texts and non-texts and helps readers and listeners to create continuity to what has been said before, what is said and what will be said, using appropriate and obligatory grammatical and lexical cohesive devices. Cohesion occurs when the semantic perception of certain linguistic elements in the discourse is influenced by another. According to Halliday and Hasan (1976, p. 222), "Conjunctive elements not in themselves are cohesive, but indirectly, with the help of their explicit meanings; they are not predominant devices for reaching into the preceding text, but they convey definite meanings that presume the occurrence of other components in the discourse".

For the unity of the text, the writers imply conjunctions, and their use of conjunctions across disciplines and subject is variant as the demands of the texts vary from subject to subject (Jamalzadeh, 2017). He also highlighted the differences in the use of conjunctions across various sections of the research articles of even the same discipline and subject. The research studied variant use of conjunctions across four sections of the article, but no study has been conducted in Pakistan to analyze the use of conjunctions across the research articles of various disciplines at once.

In the context of Pakistan, no study has been conducted to analyze the use of conjunctive cohesion across academic writings of various disciplines at once. Therefore, based on Batool (2020), the present study was conducted to analyze the use of conjunctions across five disciplines of Social Science, and across the sub-sections of the articles of these disciplines. The Social Science disciplines that were selected for the analysis includedApplied Linguistics (AL), English Literature (EL), Business Administration (BA), Sociology (SL), and Psychology (PL). The corpus of 250 articles, 50 articles from each discipline, was constructed and analyzed.

Objectives of the study

The objectives of the present study have been given below:

- 1. To assess the frequencies of the conjunctive features
- 2. To classify the conjunctive features found in the corpora

3. To analyze the functions of conjunctive cohesion by comparing their usage across disciplines (Applied Linguistics (AL), English Literature (EL), Business Administration (BA), Sociology (SL), and Psychology (PL)) and sections of articles

Research Questions

The present study answers the following questions:

- 1. What are the frequencies of conjunctive cohesion in Pakistani social science articles?
- 2. Under what classificatory categories do these conjunctive features come?
- 3. To what extent are there meaningful similarities and differences of conjunctive cohesion across social science disciplines (Applied Linguistics (AL), English Literature (EL), Business Administration (BA), Sociology (SL), and Psychology (PL)) and among six sections of academic writings (Abstract, Introduction, Literature Review, Methodology, Results and discussion and Conclusion)?
- 4. What is the functional role of conjunctive cohesion in academic writing?

Significance of the study

The significance of the present study lies in the fact that it has implications for social science teachers and scholars in addition to EFL/ESL students as the findings of this study provide useful information to scholars, teachers, and learners to improve the way they analyze, teach and use conjunctive features.

2. Literature Review

The studies have been conducted to analyze the use of conjunctive cohesion in the written discourse. The researchers have tried to assess the purposes that conjunctive cohesion serves in various texts. Significant corpus-based studies, that aimed to analyze the use of conjunction in writings, had been reviewed to support this study.

Hutton and Curzan (2019), for example, studied conjunctions to examine the point of view about the linguistic change regarding the status of conjunction. They took data of 850 million words from a corpus of COHA, COCA, and BNC. The researchers used a statistical tool to analyze the data. The results indicated how usage of the conjunction was modified. Alasmriand Kruger (2018) studied the use of conjunctive markers in Arabic translated and non-translated legal and creative fictional texts to compare the frequencies and functions of conjunctive features. The said study was corpus-based, and the data of 1000 words was taken from parallel

corpora of Arabic translated and non-translated texts. The researchers used the tool WordSmith Tools 7 to analyze the data. The results showed that Arabic translated, and non-translated legal and creative texts had differences in the usage of conjunctions. Another corpus-based conjunctive analysis was carried out by Chen (2017)on written assignments of Chinese EFL learners. He compared the use of conjunctions by Chinese EFL learners with native English writers. The findings of the study suggested that Chinese EFL learners used conjunctions less frequently than native English writers. Furthermore, Khan and Choudhary (2017) carried out a Corpus-based study of conjunctions used in Mohsin Hamid's novels.

The scholars have also studied the use of cohesive elements in the research articles. For instance, Jamalzadeh (2017) conducted a corpus-based study on cohesive conjunctions used in medical research articles to examine the differences in the use of cohesive conjunctions by Iranian and Non-Iranian Authors. He emphasized that differences in the use of conjunctive cohesion in many sections of the research articles of even the same discipline and subject can be witnessed. The study investigated the different use of conjunctions across four sections of the articles. Trebit(2009), Michel (2013), Mohammad (2015), *Ketabi and Jamalvand* (2009) and Bahaziq(2016) also analyzed the use of conjunctive features in their studies.

In the context of Pakistan, no study has been carried out to analyze the use of conjunctions across the research articles of various disciplines at once. Therefore, the present study is pioneering one in the field as it investigates the use of conjunctive cohesion across five academic articles of five disciplines and sections of the same article at once.

3. Materials and Methods

Overall Methodological approach

The research is mixed-method in nature. The quantitative data was used to calculate the frequency of different types of conjunctive cohesion, and the types and functions of the conjunctive features were elaborated and described qualitatively.

Corpus Development

The corpus consisted of 250 articles from the five disciplines of Social Science. The corpus contained 50 articles from each discipline. The five disciplines for analysis were Applied Linguistics, English Literature, Business Administration, Sociology and Psychology.

Size of Corpus

The following table shows the size of the corpus in five disciplines (Applied Linguistics, English Literature, Business Administration, Sociology and Psychology)

Table 3.1 Size of the corpus in five disciplines

Disciplines	Total Words	Percentage
Applied Linguistics	191225	21.08%
Literature	187812	20.70%
Business Administration	169588	18.69%
Sociology	181187	19.97%
Psychology	177413	19.56%
Total	907225	100%

Criteria for developing Corpus

The articles were selected based on the following criteria:

- 1. Written by Pakistani authors
- 2. The equal number of articles from the five selected disciplines.
- 3. Accessibility (online resource)

Data Retrieval

A proper mechanism was devised so that the data might be retrieved easily when required. The steps which were taken in this regard have been given here:

- 1. The articles were saved in word files.
- The second stage was to keep the record of data in Microsoft Excel for easiness by putting file number, token type, word type, data source, the title of data, date of publication, and name of scholars.
- 3. Word files were renamed for classification of different disciplines.
- 4. The date of issue and publication, name of author and university name was removed.
- 5. Word files were converted into notepad files
- 6. 250 files were compiled as Applied linguistics (1-50), English Literature (51-100), Business Administration (101-150), Sociology (151-200) and Psychology (201-250).

Instruments for Data Analysis

A comprehensive model for the analysis of conjunctive cohesion was developed which classified conjunctive cohesion into three categories i.e. elaboration, extension, and enhancement. It was practised in a pilot study as well. Furthermore, the software AntConc (3.4.4.0) was used to

process the data for the pilot study and the current study of conjunctive cohesion for analysis. The software helped in counting the frequencies of conjunctive cohesion. The discussion on the results also included the qualitative account of the functions of conjunctive features.

Proposed Model for the study

For the current study, a new model was devised to classify all major and minor conjunctive features. The model has been presented in Table 3.1

Table 3.2

Proposed Model for Conjunctive Cohesion

	1.Exemplification						
	2.Restatement						
	3.Identification						
Elaboration	4.Clarification	Correct					
ati		Distractive					
2		Particularizing		Specifica	ation		
[]		Resumption		1 1 1			
_		Summative	Conclusive		Culminative		
					Internal		
		Verificative					
	5.Additive	Argumentative					Positive
		Divergence					Negative
	6.Alternative						
	7.Adversative	Adversative relation		Sin	mple		
				Co	ontaining		
00				En	npathic		
Extension		Contrastive relation		ļ.	1	Inter	nal
xte		Contrastive Telation				Exter	
	8. Variation	Subtractive				2	
		Replacive					
	9.Location	Temporal			Following		
						Simultaneous	
			Sim	ple	Preceding		
					Concessiv		
					Immediate		
					Interrupted Repetitive		
			Com	plex	Specific		
			•	•	Durative		
		(Sequential)			Terminal		
		(Sequential)			Punctiliar		
'n		Spatial	Concrete	e			
me			Abstract				
nce	10.Manner	Comparison	Similarity			Positive	
Enhancement		r	Difference			Negative	2
豆		Means					
	11.Causative	General					
		Specific		Result			
				Reason			
				Purpose			
				Behalf	Posi		
	10.14	D. W.			Neg	ative	
	12.Matter	Positive					
	12 Contingonary	Negative Condition			D	Hirra	
	13.Contingency	Condition				itive ative	
		Concessive			neg	auve	

Default

Data Analysis

To count the frequency of conjunctive features, the text processor (AntConc. 3.4.4.0) was used. Then, the items taken to be conjunctive cohesion were classified according to the proposed model. Furthermore, the comparison between five disciplines and sections of articles in terms of frequencies of conjunctive cohesion was drawn. Finally, the functions of conjunctive features were explained qualitatively.

Pilot study

A set of 50 Social Science articles, 10 from each discipline (AL, EL, BA, SL, and PL), were selectedfor the pilot study. The corpus for the pilot study comprised 203154-word tokens and 47074-word types. The following table shows the size of corpus across various sections of articles as well as disciplines.

Table 3.3

Pilot study for Sections of Articles in five disciplines

Sections of	Applied L	inguistics	Literature	:	Business Sociology Administration		Psychology			
Articles	Word Types	Word Tokens	Word Types	Word Tokens	Word Types	Word Tokens	Word Types	Word Tokens	Word Types	Word Tokens
Abstract	501	1373	1924	6370	607	1702	537	1720	537	1491
Introduction	2113	9373	2985	11327	1530	5834	1602	6042	2620	12773
Literature Review	2527	11170	1541	6690	1958	10066	1744	5963	1422	4618
Research Methodology	3426	2129	2544	11042	1083	6668	1238	5246	1367	5645
Results and Discussion	1598	6998	4845	27936	964	5939	1947	13368	1782	7619
Conclusion	819	2589	834	2151	1116	4581	868	2383	772	2339
Total	8707	33641	14673	65516	7258	34790	7936	34722	8500	34485

The findings of the pilot study indicated that extension conjunction, particularly additive category, was used more frequently as compared to other conjunctive features. The additive

conjunction was more frequently used in the results and discussion section of the discipline of English Literature as compared to other disciplines and other sections of the articles. The additive conjunction was used 1171 times.

4. Results and Discussions

Analysis for Abstract Section

The obtained results, after analysis, of conjunctive cohesion in the abstract section across five disciplines haven been presented in Table 4.1

Table 4.1 The results of conjunctive cohesion in the abstract section across five disciplines corpora

			Numer	rical Outcomes of A	Abstract	
Conjunctive Cohesion		Applied Linguistics	Literature	Business Administration	Sociology	Psychology
	Exemplification	103	149	61	71	40
 Elaboration	Restatement	3	12	4	5	4
Elaboration	Identification	14	37	23	21	10
	Clarification	367	107	41	53	30
	Additive	389	944	426	417	438
Entonoi on	Variation	30	43	12	12	13
Extension	Adversative	31	67	25	22	10
	Alternative	7	7	3	1	1
	Location	68	169	44	65	47
	Manner	180	227	107	110	106
Enhancement	Causative	221	384	195	214	162
	Matter	18	30	11	13	14
	Contingency	60	62	32	23	24

The table presents that results and discussion section of AL contain frequent use of additive and clarification conjunctions having the frequencies of 389 and 367 respectively. AL articles contain few conjunctions of restatement (3 times). In EL, BA, SL, and PL, there is the frequent use of additive conjunctions with frequencies of 944, 426, 417 and 438 respectively. The less frequent conjunctions in EL, BA, SL and PL are alternative (7 times), alternative (3 times), alternative (1 time) and alternative (1 time) respectively.

Analysis for the Introduction section

The results of conjunctive cohesion in the section of Introduction across five disciplines have been given in table 4.2.

Table 4.2

The results of conjunctive cohesion in introduction section across five disciplines corpora

Conjunctive Cohesion		Numerical Outcomes of Introduction				
Conjunctive Cohesion	Applied	Literature	Business	Sociology	Psychology	

		Linguistics		Administration		
	Exemplification	492	320	351	471	882
 Elaboration	Restatement	15	3	18	15	22
Elaboration	Identification	77	63	86	137	171
	Clarification	218	295	183	408	426
	Additive	1536	1417	1632	2568	3753
Extension	Variation	83	74	77	97	124
Extension	Adversative	95	166	119	142	224
	Alternative	14	33	11	25	29
	Location	275	744	359	524	681
	Manner	394	288	398	521	798
Enhancement	Causative	877	705	782	1288	1716
	Matter	50	79	64	121	164
	Contingency	174	148	163	224	296

Table 4.2 shows that the most frequent conjunctive cohesion in AL is "additive" conjunction, and it is used 1536 times. Moreover, the "causative" conjunction is used 877 times in AL, and less frequent conjunctive cohesion is "alternative" conjunction, it is used 14 times. In EL, the two most frequent conjunctive cohesions are "additive" conjunction (1417 times) and "location" conjunction (744 times). The less frequent conjunctive cohesion of EL is "restatement" conjunction and it is used 3 times. In BA, the most frequent conjunctive cohesions are "additive" conjunction (1632) and "causative" conjunction (782) respectively. Less frequent conjunction in articles of this discipline is "alternative", and it is used 11 times. In SL, both "additive" (2568 times) and causative" (2568 times) conjunctions are more frequent. "Restatement" is the less frequent conjunction of SL discipline, and it is used 1 time. "Additive" (3753) and "causative" (1716 times) conjunctions are more frequent in PL discipline. Less frequent conjunction of PL is "restatement", and it is used 22 times.

Analysis for Literature Review section

The frequencies of conjunctive cohesion found in the literature review section across five disciplines have been presented in Table 4.3.

Table 4.3

The results of conjunctive cohesion in the literature review section across five disciplines corpora

Conjunctive Cohesion		Numerical Outcomes of Literature Review					
		Applied Linguistics	Literature	Business Administration	Sociology	Psychology	
		Linguistics		Aummstration			
Elaboration	Exemplification	415	165	405	184	250	
	Restatement	22	5	21	11	3	
	Identification	40	33	112	44	45	

	Clarification	269	75	402	132	104
Extension	Additive	1483	587	2551	1357	945
	Variation	260	114	82	43	16
	Adversative	116	29	180	82	55
	Alternative	22	5	28	8	8
Enhancement	Location	318	93	442	209	161
	Manner	443	106	500	449	211
	Causative	872	274	1435	623	412
	Matter	83	10	106	52	34
	Contingency	139	46	213	66	71

The table shows that the literature review section of AL contains frequent use of additive conjunction 1483 times and causative conjunction with frequency of 872 respectively. The less frequent conjunctions in AL are the restatement and alternative having the frequencies of 22. Additive conjunctions are more frequent in EL with the frequency of 587. In EL, the less frequent conjunctions are restatement and alternative, and each of these having the frequency of 5. similarly, BA, SL, and PL contain additive conjunctions with high frequencies, having the numbers 2551, 1357, and 945 respectively. The less frequent conjunctions in BA, SL and PL are restatements, alternative and restatement respectively having the frequencies of 21, 8 and 3.

Analysis for the section of Methodology

Table 4.4 The results of conjunctive cohesion in the methodology section across five disciplines corpora

			Numeric	al Outcomes of Mo	ethodology	
Conjuncti	Conjunctive Cohesion		Literature	Business Administration	Sociology	Psychology
	Exemplification	82	74	272	193	239
Elaboration	Restatement	24	4	18	20	14
Elaboration	Identification	7	9	71	36	45
	Clarification	487	22	76	120	137
	Additive	1504	376	1079	990	1346
Extension	Variation	64	26	57	25	57
Extension	Adversative	68	24	52	40	35
	Alternative	22	2	15	17	8
	Location	329	53	293	254	321
	Manner	764	67	403	314	409
Enhancement	Causative	367	181	743	499	557
	Matter	80	15	35	51	68
	Contingency	126	14	124	80	93

The table shows that the methodology section of AL contains frequent use of additive conjunction and it is 1504 times. The less frequent conjunctions in AL are the identification and alternative having the frequencies of 7 and 22 respectively. Additive conjunctions are frequent

in EL with the frequency of 376. In EL, the less frequent conjunctions are restatement and alternative having the frequencies 4 and 2.Similary, BA, SL, and PL contain additive conjunctions with high frequencies, having the numbers 1079, 990, and 1346 respectively. The less frequent conjunction in BA, SL and PL are restatement and alternative respectively having the frequencies of 18,20,14 and 15,17,8.

Analysis for Results & Discussion section

The frequencies of conjunctive cohesion found in the results and discussion section across five disciplines have been presented in table 4.5.

Table 4.5

The results of conjunctive cohesion in results & discussion section across five disciplines corpora

-		Numerical Outcomes of Results & Discussion						
Conjunctive Cohesion		Applied Linguistics	Literature	Business Administration	Sociology	Psychology		
	Exemplification	287	1546	355	528	333		
Elah anati an	Restatement	74	39	38	43	18		
Elaboration	Identification	19	264	92	156	58		
	Clarification	609	1082	248	401	190		
	Additive	3695	5857	1693	2920	1687		
E-stancian	Variation	220	405	99	642	55		
Extension	Adversative	237	750	155	186	116		
	Alternative	72	117	28	24	6		
	Location	865	1441	380	691	310		
	Manner	1881	1415	524	761	362		
Enhancement	Causative	1200	3500	1041	1911	971		
	Matter	231	346	53	172	87		
	Contingency	250	691	154	224	113		

The table presents that results and discussion section of AL contain frequent use of additive and causative conjunctions having the frequencies of 3695 and 1200 respectively. AL articles contain few conjunctions of identification (19 times). The disciplines of EL, BA, SL, and PL have frequent use of additive conjunctions with frequencies of 5857, 1693, 1920 and 1687 respectively. The less frequent conjunctions in EL, BA, SL and PL are restatement, alternative, alternative with frequencies of 39,28, 24 and 6 respectively.

Analysis for the Conclusion section

The frequencies of conjunctive cohesion found in the conclusion section across five disciplines have been presented in table 4.6.

Table 4.6

The results of conjunctive cohesion in the conclusion section across five disciplines corpora

	•		Numeri	cal Outcomes of Co	onclusion	•
Conjunctive Cohesion		Applied Linguistics	Literature	Business Administration	Sociology	Psychology
	Exemplification	22	83	169	199	90
The bounding	Restatement	5	2	17	13	7
Elaboration	Identification	1	14	36	40	15
	Clarification	129	77	147	128	86
	Additive	579	355	918	1104	444
E-tomoion	Variation	27	17	46	56	26
Extension	Adversative	56	40	74	88	23
	Alternative	4	6	12	14	2
	Location	85	234	167	188	72
	Manner	240	82	203	214	84
Enhancement	Causative	184	168	519	648	255
	Matter	34	16	41	54	25
	Contingency	58	39	90	62	40

The table shows that the conclusion section of AL contains frequent use of additive conjunction and it is 579 times. The less frequent conjunctions in AL are the identification and alternative having the frequencies of 1 and 4 respectively. Additive conjunctions are frequent in EL with the frequency of 355. In EL, the less frequent conjunctions are restatement and alternative having the frequencies 2 and 6.Similarly, BA, SL, and PL contain additive conjunctions with high frequencies, having the numbers 918, 1104, and 444 respectively. The less frequent conjunction in BA, SL and PL were restatement and alternative respectively having the frequencies of 17,13,7 and 12,14,2.

Discussing Functions of The Conjunctive Cohesion

The findings of the study reveal that additive conjunctions are used more frequently across the articles of five disciplines and the sections of the article. In addition to that, the findings reveal that identification and alternative sub-type conjunctions have the least frequencies in the abstract section of SL and PL and conclusion section of AL. The findings of this study are in line with studies of Trebit (2009), Michel (2013) Jamalzadeh (2017) Mohammad (2015), and Bahaziq (2016) as all these studies conclude that additive conjunctions are used more frequently than other categories of conjunctions.

The comparison of the data provided the significant evidence that the corpus of EL contained frequent use of conjunctive features. The results show that conjunctive cohesions were used more frequently in the discipline of EL and results and discussion sections of the articles.

Three main categories and the sub-categories of conjunctive cohesion have been used to serve a certain purpose by the writers. Few examples, from corpora, of the use of certain conjunctive cohesion serving specific purposes have been given below. It has also been mentioned with the examples from which discipline and section these were taken.

Exemplification

The functions of this feature are to provide lear instances, to add maximum information, and to define, persuade, elaborate, or illustrate the idea

1. 'This paper focuses on the key components of each of the above-mentioned issues <u>e.g.</u> cultural issues i.e. language, shopping habits, and use of credit etc'(Abstract section, Business Administration)

In the above-mentioned example, the scholar has employed e.g. conjunction to introduce an example in the article and e.g. is the abbreviation of for example.

2. Certain other terms also exist with the attitude, <u>for instance</u>, ego, empathy, perceiving, feeling, extravert, introvert, pride, haughtiness, etc. (Abstract Section, Literature)

In the above instance, the scholar has used conjunctive cohesion for instance to provide further meaning with the help of examples.

3. Barring a few exceptions, one can readily see the implications of the above objectives for teaching and learning English as a Second Language. For example, the ability to think critically and interact with people of diversified social and linguistic backgrounds is germane to the importance of successfully performing in a global society. (Results and Discussion section, Applied Linguistics)

In the example, the use of for example shows that something has taken place in other text, but the scholar is adding a similar thing in the present text.

Restatement

It describes the comprehensive and in-depth information; either by rephrasing the information or by repeating the information, usually rewording the information. The examples have been given below:

1. The present study is the analysis of secondary data which aims to identify the potential areas of gender gaps <u>i.e.</u> education, health, political participation, employment, etc in Pakistan(Abstract section, Sociology)

In this example, the scholar used i.e. to introduce the new statement in the article which is related to the former statement.

2. The word fear is derived from the Old English faer, which means sudden calamity or danger, and was later used to describe the ensuing emotion (Burchfield, 1956). (Literature Review section, Psychology)

In the example, the conjunction which means is treated as CC that is used to rephrase the first statement, and it is stated again to describe something more convincingly and more clearly.

Identification

Identification expresses a broad variety of means through which anyone can set up the shared sense of interest and values with the audience, and its function is to provide detailed information.

1. Various schools of stylistics <u>namely</u> sociolinguistic stylistics, feminist stylistics, functionalstylistics, pragmatic stylistics, and pedagogical stylistics have been briefly overviewed.

(Introduction, Applied Linguistics)

In the example, the scholar has used 'namely' to describe different branches in a more detailed way.

2. A 'migrant' can be <u>defined as</u> a person who leaves his native land to settle in a country or cultural community that is initially strange to him. (Introduction, Sociology)

In this instance, CC 'defined as' has been used. Defined as is used when more precise and thorough information is being conveyed to the readers.

3. In the early period of the reformation of religion in Europe, two fundamental trends had emerged, <u>viz</u>. those of regionalism and rationalism. (results and discussion, Literature)

In the above instance, the use of Conjunctive cohesion viz is visible. The Function of viz is to describe more accurate and detailed information.

Clarification

The function of clarification conjunction is to make something easy to comprehend, generally by elaborating it in a more comprehensive form. It is used to emphasize the fact that one statement can be elaborated in the comprehensive meaning of others. An example containing such conjunctions from the corpora is given here.

The use of technology and Information Technology(IT) <u>in particular</u> is essential to the successful operations of today's organizations. (particularizing)
 (Abstract, Sociology)

In the above instance, the conjunctive cohesion 'in particular' is used. The CC has been used to provide an explicit idea in the article.

2. In Pakistan, comprehensive research on Pakistani English has not been conducted yet.

<u>Anyhow</u>, efforts have beenmade on various levels to prove that Pakistani English (PE) is a variety in the making. (dismissive) (Literature review, Applied Linguistics)

In this example, 'anyhow' has been employed by the scholar that supports and emphasize the already said statement.

3. <u>The most important</u> reason which the qualitative interviews showed was that the burden of more responsibilities was kept them far away from continuing their education. (particularizing) (Results and Discussion, Sociology)

In the given example, conjunctive cohesion the 'most important' has been used to indicate the significant idea in the article.

Additive

It describes that second item, phrase or clause involves further information that is associated with the first item, phrase, or clause. Addition can be positive (and further), negative (not), simple or complex.

1. A-Priori sample size was calculated to estimate minimum sample size that was 974 to remove biasness; I was taken twenty three respondents <u>additionally</u> from each university. (Abstract, Psychology)

The CC has been used to give some extra information here.

The study consists of the following steps like Corpus Compilation, POS tagging, and study of concordance lines. (Methodology, Applied Linguistics)
 In the case of this example, by using 'and', scholar adds another piece of information.

Alternative

The function of alternative conjunctions is to show choice between statements, it is used to show an alternative association between two statements, phrases, or clauses it joins. For

instance, some words such as either, neither, either or, and neither nor etc. are used to express alternative conjunction.

1. They hardly think of other <u>alternatives</u> considering the ready-made sources as the only teaching aids.

(Abstract, Applied Linguistics)

Here, 'alternatives' has been used to give the idea that is different from the previously given idea.

2. Perhaps the low self-esteem people who reach college take on qualities and utilize strategies that differentiate them from other people with low self-esteem. <u>Alternatively</u>, it may be that only a subset of people with very low self-esteem suffers from extreme self-loathing and maladaptive behavior patterns. (Introduction, Psychology)

Likewise, 'alternatively' has been used by the scholar to replace one statement with another statement by indicating the relation between two statements.

3. Pfeffer and Fong(2002) shocked the business academia through their findings that the business schools have not been very effective in reducing unemployment, and <u>neither</u> possessing a MBA degree <u>nor</u> the good grades have any correlation with future success in career of the graduates.

(Literature Review, Business Administration)

In this example, 'neither, nor' has been used. By using conjunctive cohesion 'neither- nor' the writer expresses the choice of two or more possibilities that are impossible or not true in the statement.

4. Importantly, they identified themselves mostly <u>either</u> through Urdu <u>or</u> English or both. (Methodology, Applied Linguistics)

Similarly, in this example, either- or has been used by the scholar to show the choice of two or more than two possibilities in the text.

5. Some researchers have reported that organizational commitment differs considerably among male and female employees. <u>Conversely</u>, Khatibi et al., (2009) refuted this finding and asserted that no important difference in organizational commitment was found between male in addition to female employees. (Sociology)

In the case of this example, conjunctive cohesion 'conversely' has been used by the scholar to begin the statement that is reverse of the previous statement.

Variation

The function of variation is to show that one statement is totally or partially replacement of the other statements. The examples of the use of 'variation have been given below.

1. The basic point is to serve humanity as much as, it could be. <u>Apart from</u> Sufi tradition, one can uphold Sufi spirit, by simply taking into consideration, the small acts of virtue. (Abstract, English Literature)

Here, 'apart from' has been employed by the scholar to indicate the exception in the simple statement.

2. In United States the investors normally do not prefer to invest in equity market, <u>instead</u> they favor to invest in international equity Funds.

(Introduction, Business Administration)

The use of instead has been witnessed by the scholar to show replacive statement that is under discussion and it is used when a specific thing has taken place instead of another thing in the statement.

3. Infidelity has long been equated with extramarital sex referring to sex with someone other than the primary partner (Atkins, Baucom, & Jacobson, 2001). (Psychology)

In the given example, 'other than' has been used by the scholar. The scholar has employed 'other than' as CC in a negative sense to indicate the exception for the specific person in the statement.

Adversative

It is used to show the opposition or contrast between two statements in the text. For instance, different words i.e. nonetheless and nevertheless etc. are used to express adversative conjunction. The examples for this category of conjunction from the corpora have been given below.

1. There are a number of studies on attitudes towards English <u>but</u> there is almost no research on attitudes of English language users in Pakistan.

(Abstract, Applied Linguistics)

In this example, conjunctive cohesion 'but' has been seen. The scholar has used but to join two statements when a later statement is adding the different thing. Therefore, the conjunctive cohesion but has been used to show contrast.

2. Although mutual funds have been used consistently by advanced countries <u>yet</u> it is relatively new area in the developing countries including Pakistan. (Business Administration)

In the instance, the use of yet has been practised by the scholar in negative senses that is under discussion, and it is used whether something that is expected has taken place in the sentence.

3. Since it is not a treaty, the standards of behaviour that it defines have the status of only non-binding norms, but the document is <u>nonetheless</u> of enormous legal and political importance, for it provided the foundation not only for later legally-binding international treaties but also for many national governments' rights frameworks. (Literature Review, Sociology)

Likewise, the 'nonetheless' as CC has been used to show contrast.

Location

It describes when (time) and where (place) something happens, and spatial information can be concrete and abstract. In the text, the place can be conjunctively used e.g. there and here, and other spatial circumstance, for instance, near and behind. On the other hand, the temporal element describes the variety of various relations; it is easy to differentiate between simple temporal and complex temporal. (Halliday and Matthiessen, 2014). The examples from the corpora have been given here.

1. The paper shows that the response of literature towards political mechanics has been inconsistent with the most important works of this nature published either <u>immediately</u> after partition or more <u>recently.</u> (temporal)

(Abstract, English Literature)

The conjunctive element is functioning here to tell something about the time.

2. <u>Finally</u>, it will describe some management implications for conducting successful e-Business in the country. (sequential)

(Introduction, Business Administration)

The scholar has employed this sequential conjunction to make his writing more directional for the reader as well as to show how he has organized different ideas via this conjunctive adjunct.

Causative

This conjunctive adjunct describes the purpose of the realization of the process. It is classified into two categories general (simple) and specific (result, reason, purpose, and behalf) category. The examples from the corpora have been given here.

1. Income funds appear to have suffered <u>as a consequence of</u> the underdeveloped bond market, and very high t-bill rates have resulted in negative excess returns during the period. (consequence)

(Abstract, Business Administration)

In the above example as a consequence of has been employed by the scholar to show the result of something.

2. The Dar-ul-Aman is a government agency and therefore, operates under legal rules. (result)

(Introduction, Psychology)

In the mentioned example, 'therefore' has been used to express the results of something that has just been discussed.

Manner

It expresses how or in what manner the process is actualized. This conjunctive adjunct creates cohesion within the text via means (with what), and comparison (like). Means describes the means through/ whereby the process occurs, a comparison is described by conjunctive adjuncts like (similar) or unlike (different). The examples from the corpora have been given here.

1. The current study was conducted to <u>compare</u> students of Pakistani British and White British on study habits in addition to their academic performance.(comparison)

(Abstract, Applied Linguistics)

In the instance, the conjunctive adjunct'compare' has been employed by the scholar to examine the diversity or alikeness.

2. The various characters, under <u>different</u> circumstances, behave and react <u>differently</u>. (comparison) (Results and Discussion, Literature)

In the given example, the scholar has used two conjunctive adjuncts different and differently. The major function of these conjunctive adjuncts is to indicate the variability of elements in the statement.

Contingency

It describes the items on which realization of the process is dependent. It is further categorized into three categories: condition, concession, consequence, and default.

1. Statistical analysis revealed that <u>although</u> White British students had significantly better study habits than the Pakistani British but no significant difference was found in their academic performance. (concessive)

(Abstract, English Literature)

In the given example, 'although', a conjunctive adjunct has been used to indicate the introduction of the second statement which has made the first statement of the article unexpected and unpredictable.

2. <u>Despite</u> the inconsistencies in results, an in-depth review reveals that usually a strong, negative relationship is found between job satisfaction and work-family conflict. (concessive)

(Results and Discussion, Business Administration)

Here, 'despite' has been used by the scholarto indicate the happening of something even though the hurdles were there.

Matter

It is realized by "What about" interrogation. This is used when someone talks about or writes about something. It is actualized by the conjunctive adjunct regarding, concerning, with reference to, and about, etc. The examples from the corpora have been given here.

1. The policy options for USA towards Pakistan and Pakistan's towards USA <u>considering</u> global realities in different aspects is also discussed. (Abstract, Sociology)

In the given example, the conjunctive adjunct considering has been used. The function of this conjunctive adjunct is to express the act by which global actualities has been considered.

2. There was no awareness <u>regarding</u> the other areas of education. (Introduction, Psychology)

Usually, this conjunctive adjunct is used to answer the question of 'about what?'. The scholar has employed this here to show the topic.

5. Conclusion

The numerical results showed the frequencies of all types of conjunctions, while the functions of the conjunctive cohesions were presented theoretically. On the empirical basis, the results of this study showed that the most dominant conjunctive cohesion category across five

disciplines was extension category, and the influential feature was additive conjunction, a subcategory of extension category. More precisely, extension category of conjunctive cohesionwas found to be more frequent in the all disciplines in general and in the discipline of English Literature (EL) in particular, while other categories such as elaboration and enhancement were less frequently used in the other corpora (e.g. AL, BA, SL & PL). It was also revealed that identification and alternative conjunctions had the least frequencies in the abstract section and conclusion section of SL and PL and AL. Therefore, the study concludes that conjunctive cohesion is used distinctively by the writers of all the disciplines. It also concludes that the extension category of the cohesion is a frequently used cohesive feature in academic writing. Furthermore, it concludes that the devised model is useful in classifying different cohesive links used in academic writing to hold the text together. Finally, the study concludes that certain cohesive categories serve certain purposes.

6. Suggestions/ Recommendations

The findings of the present corpus-based analysis can be utilized as the direction to provide suggestions on English language teaching as Conrad et al. (2003) recommended corpus-based studies might throw light on basic conventions of the grammar of English and, consequently, provide the chance of proper and effective pedagogical application. The study also suggests that there is a need to conduct corpus-based studies on Pakistani English writers across various discipline by constructing more lengthy corpora to study other linguistic features along with the conjunctive cohesion.

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