The use of conjunctions as cohesive devices in Iranian sport live radio and TV talks

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Conjunctions are the most obvious clues for restricting the interpretation of a semantic relation in order to be well understood (Dooley & Levinsohn 2001). This study investigates conjunctions in Iranian sport live radio and TV talks based on Dooley & Levinsohn (ibid.). Selecting 200 minutes of 20 different sport live radio and TV recorded programs, we present conjunctions functionality by comparing their extent of occurrence frequency using T-test. Results supports that associatives are most frequently used while adversatives are the least. Additives, adversatives, and developmental markers (but not associatives) hold a meaningful difference between their applications in the corpus. Finally, conjunctions are reported to have a significant relation in their utilization in the two sets of data.

Keywords*: Conjunctions, Associative conjunctions, Additive conjunctions, Adversative conjunctions, Developmental markers, Radio, TV, Live talk*

1. Introduction

Cohesion system was mainly introduced by Halliday & Hasan (1976). They argued that cohesion has a semantic concept, which refers to relations of meaning that exist within the text and define it as a text. Halliday (1989) confirms that cohesion occurs where the interpretation of some elements in discourse is dependent on that of another. Cohesive devices or 'cohesive ties' might be grammatical or lexical and consist of words, phrases or clauses that link the discourse items together. More precisely, the cohesive relations are made by the ways two or more items are semantically joined to each other in a text. Based on Morris & Hirst (1991), cohesion is the textual quality that makes the text sentences hang together.

After the publication of Halliday & Hasan's (1976) work about cohesion concept, many scholars attempted to explain different aspects of this feature in speech, among which are Dooley & Levinsohn's (2001) view which is taken primarily from Halliday & Hasan (1976) and Brown & Yule's (1983) framework. Dooley & Levinsohn (2001) have divided cohesion devices into six categories, namely, descriptive expressions, identity, lexical relations, morpho-syntactic patterns, signals of relations between propositions (conjunctions), and intonation patterns. According to Dooley & Levinsohn (ibid.), the conjunction device, in turn, contains four elements including associatives, additives, adversatives, and developmental markers.

Live talks have been selected as the research data because they are regarded as a dynamic genre: they are the most important aspect of radio and TV programs. Good choice of speech leads to proper engagement of radio and TV programs with their audiences and causes the desired response of their audience (Tolson 2009). Tolson (ibid.) states that spoken discourses on radio and TV programs are different in essence. As opposed to radio, TV is audiovisual i.e., as well as verbal interaction, visual elements are of advantage to TV programs. Such visual elements are like the speakers' gestures, body movements, the use of various images and written materials. Nevertheless, radio programs concentrate only on sounds, like signature tones and the speakers' discourse. In order to have appealing programs

which attract many audiences, radio and TV style of program presentations should be analyzed (ibid). Having attracted many audiences, radio and TV programmers can initialize social interactions with audiences and invite their audiences to interact with them. Therefore, it is useful to examine to what extent the use of cohesive devices like conjunctions supports them in attracting more audiences.

Thus, we can assess the extent of utilization of conjunctions in sport live radio and TV talks. By doing so, their percentage of occurrence in the research corpus can be compared as well. In this regard, this research specifically addresses the following main research question: Do conjunction devices have the same frequency of occurrence in sport live radio and TV talks? Besides, the minor research questions are:

1. Do associative conjunctions have the same frequency of occurrence in sport live radio and TV talks?
2. Do additive conjunctions have the same frequency of occurrence in sport live radio and TV talks?
3. Do adversative conjunctions have the same frequency of occurrence in sport live radio and TV talks?
4. Do developmental markers have the same frequency of occurrence in sport live radio and TV talks?

According to the research questions given above, the research main null hypothesis is: "Conjunctions do not have the same frequency of occurrence in sport live radio and TV talks." In addition, the research minor null hypotheses are:

1. Associative conjunctions do not have the same frequency of occurrence in sport live radio and TV talks.
2. Additive conjunctions do not have the same frequency of occurrence in sport live radio and TV talks.
3. Adversative conjunctions do not have the same frequency of occurrence in sport live radio and TV talks.
4. Developmental markers do not have the same frequency of occurrence in sport live radio and TV talks.

By examining these questions and hypotheses, the similarities and differences between the utilization of conjunctions in the radio and TV data collected can be identified. Also, it can be investigated that to what extent the application of each sub-type helps the participants of sport live radio and TV talks to make such oral texts cohesive.

In the following sections, we will review the literature regarding the role of cohesive devices like conjunctions in making a text hang together. Then, we will introduce the research framework. Further, we will outline the method of analysis applied to the present research data, and talk about the research results and discussions. Finally, the research conclusions will be provided.

2. Literature review

Since the introduction of cohesion by Halliday & Hasan (1976) a large number of studies were performed on cohesion analysis. Most of these studies analyzed the function of cohesion in text analysis. Recent studies in this field have mainly been done on grammatical cohesion such as reference, substitution, ellipsis, and conjunction of English written texts e.g., Bennet-Kastor (1986); Coulthard (1994); Gutwinski (1976); Parsons (1991); Parsons

(1996); and Stotsky (1983)). In addition, other languages have been examined in this respect as well; e.g., Russian in Simmons (1981); English and Hindi in Kachroo (1984); Spanish in Mederos Martín (1988) and Casado Velarde (1997); English and Japanese in Oshima (1988); Persian in Roberts, Barjasteh Delforooz, & Jahani (2009).

Noor-Mohammadi (1984) investigated a contrastive study on the application of cohesion devices in English and Persian. Kavoosi-Nejad (1993) explored ellipsis in noun phrases, verb phrases and sentences, and indicated the differences between ellipsis and substitution. Based on Halliday & Hasan (1976), Fazl-Ali (1995) explored ellipsis in Persian stories of Al-e-Ahmad and Daneshvar, and revealed that verbal ellipsis is less frequent.

Shoghosho`ara (1996) examined conjunctions as a cohesive device in Persian stories at children and adults level to see whether there are differences in the application of conjunction in such texts. She concluded that writers at both levels use all four kinds of conjunctions. In addition, statistics showed that in both groups the frequency of additive conjunctions were higher than other conjunctions. The frequency of causatives in adults` stories was twice as much as children's. The use of adversatives was almost the same in the corpus. Furthermore, temporal ones in children's stories were 2.5 times more than their adults` counterparts. Therefore, he concluded that when writing a story, writers should pay attention to who are their audiences.

Mozaffar-Zadeh (1998) analyzed ellipsis and substitution in science books at guidance level and concluded that Halliday & Hasan's classification (1976) on ellipsis and substitution can be extended to Persian. Tseng & Liou (2006) inquired about the effects of online conjunction materials on college EFL students` writing. They argued that inappropriate utilization of conjunction in English, which leads to incoherent writing, is because of first language interface, misleading lists of connectors, and improper exercises. They also informed that pedagogical instructions for teaching online conjunction materials would assist EFL learners to have more writings that are coherent.

Roberts et al. (2009) following Dooley & Levinsohn`s (2001) analytical methodology described different aspects of discourse analysis including an introductory description of cohesion and coherence in 16 Iranian stories. They have also shown the style of working on discourse studies in Persian language. They have stated that their study is just an introductory work which guide people in knowing how discourse studies in Persian can be managed based on Dooley & Levinsohn (2001). In analyzing cohesive ties in English as a foreign language students' writing, Rostami Abu-Sa`eedi (2010) investigated about the most frequently used cohesive device in his sample. He came to surprising conclusions. Poor students were expected to have low density of cohesion, because they could not combine sentences together coherently, e.g. by the use of conjunctions. So, he realized that, in his study, conjunctions are not a discriminating factor between good and poor students. Also, it was observed that the frequency of additives were higher in both groups, followed by temporals. In addition, adversatives and causals had almost the same frequency of occurrence.

Seddigh, Shokr-Pour, & Kafi-Pour (2010) analyzed lexical cohesion in English and Persian abstracts based on Seddigh & Yarmohamadi's (1996) lexical cohesion framework. They used the SPSS package for contrastive analysis. The results indicated that there were some similarities and differences in the application of lexical cohesion in their corpus. All sub-types had nearly the same occurrences in the two sets of data and the two-tailed t-test revealed that the differences between their applications in English and Persian abstracts are not statistically significant. Both languages reported repetition as the most frequent sub-type, but synonymy and meronymy were the least used sub-categories.

Gonzalez (2011) investigated lexical cohesion in multiparty conversations. He presented an integrated model of lexical cohesion called 'associative cohesion'. His research data consisted of 15,683 word-corpuses of broadcast discussions. The analysis of 11,199 lexical ties illustrated that repetition (59%) is the most frequent sub-category of lexical cohesion, followed by associative cohesion (24%) and inclusive relations (8.2%).

San`atifar (2011) studied differences and similarities between pro-form substitution as a cohesive device in English and Persian with regard to form/ function, the relationship between them, and their frequency of occurrence. Sarli & Ishani (2011) explored the theory of cohesion and cohesive harmony and its usage in a minimal Persian story (The Tale of a Ladder) based on Halliday & Hasan's (1976) theory that has been revised by Halliday (1985) and Hasan`s (1984) concept of cohesive harmony. They concluded that it is possible to apply this new method in any texts and that we can compare the quantitative extent of utilization of cohesion and coherence of texts.

More recently, Yang & Sun (2012) explored the use of cohesive devices in argumentative writing by Chinese sophomore and senior EFL learners. The results of ellipsis and substitution analysis revealed that the two devices were mostly found in spoken language and were seldom used in formal written discourse. About 56.67% of the sophomores and 70% of the seniors had not used these devices; because they had become aware of the inappropriateness of using ellipsis and substitution in formal writing.

It is noteworthy that as far as the authors of the present study have searched, most of the studies on cohesion of languages are based on Halliday & Hasan (1976). Also, Dooley & Levinsohn's (2001) framework is just an introductory work. Thus, the authors did not find any similar paper that have chosen Dooley & Levinsohn's (ibid.) point of view, in order to compare their findings with the results of the present article. So, the authors' purpose is to illustrate the presented concepts of Dooley & Levinsohn (ibid.) by examining further texts than those they have prepared, to see whether Dooley & Levinsohn`s (ibid.) framework can be extended to Persian speech analysis or not.

3. Research framework

There is a general principle in human language called Behaghel's Law. It says, "Items that belong together mentally are grouped together syntactically" (MacWhinney 1991: 276). So, whenever two sentences are adjacent, or two clauses are adjacent within a sentence, (in case other things are equal) the propositions they bear should be regarded to be in a close conceptual relation. Therefore, juxtaposition can lead to cohesiveness. However, it may not signal a specific conceptual (semantic) relation by itself. Conceptual relations in sentences are sometimes referred to as coherence relations. Sometimes these are made explicitly by conjunctions, like example (1), which is derived from a computer software brochure (Dooley & Levinsohn 2001: 15):

(1) "For the first time, you can display Help and work on your document at the same time. For example, you could display and read the procedure for creating a glossary entry at the same time you create one in your document."

Here, the word *for example* may not be strictly necessary for the hearer to come up with enough mental representation to link the sentences, but it makes the speaker`s interpretation

easier. This coherence and semantic relation that is settled by conjunctions in sentences is called conjunctive cohesion. Based on Dooley & Levinsohn (ibid.: 47), "the most obvious kind of clue constraining the interpretation of a semantic relation over against another is morphemic. This is often a connective, such as a *conjunction*."

Using a Conjunction is one way of creating cohesion in texts. In analyzing cohesion of narratives in Persian Roberts et al. (2009) have divided conjunctions into four categories, following Dooley & Levinsohn (2001). Here, a brief explanation for each sub-type and their corresponding Persian examples will be provided, each of which serves or specifies a semantic relation:

3.1 *Associative conjunctions*

Some of the conjunctions signal a few conceptual relations between propositions. For example, when 'and' links propositions together, it does not represent anything about the conceptual relations between them, but it just associates that propositions together. The associative conjunctions in Persian are the following: /*væ, o*/ 'and', /*ja*/ 'or', /*ja … ja*/ 'either… or', /*næ…næ*/ 'neither… nor' (Roberts et al. 2009). For example, the conjunction /*væ*/ contributes to cohesion by indicating that there is more left to be said about the topic of the earlier sentence or, it may signal that the two sentences which are linked by /v*æ*/ are intended to be seen as related to each other (Rostami Abu-Sa`eedi 2010). Look at the example below:

(2) *ʔælan pundæh sal-e ke næ*
now fifteen year-be.PRES.3SG that not

doktor mi-r-æm næ kæmær-dærd dar-æm
doctor IMP-go.PRES-1SG not waist-pain have.PRES-1SG
'Now, it is 15 years that neither I go to doctor nor I have pain in my waist.'
(Morning and Sport, November 16, 2011)

3.2 *Additive conjunctions*

Some conjunctions assist the hearer in finding a corresponding proposition to link it to current proposition. These propositions are often not contiguous. What is different from the first proposition can be expected to be in the focus of the second one. These are used in some languages to confirm a previous proposition (Dooley & Levinsohn 2001). For example, in Persian the /*hæm*/ 'too' conjunction links the parallel propositions, which are different in their subjects and predicates. The additive conjunctions in Persian are: */ʔælave, be ʔælave, ʔælave bær ʔin*/ 'in addition', /*hætta, vælou*/ 'even', /*hæm*/ 'too', /*ʔezafe, ʔæfzun*/ 'in addition', /*mæsælæn, mesle, mesal, be ʔonvane mesal*/ 'for example', /*vangæhi, taze*/ 'besides'. Example (3) contains some of the concerned conjunctions:

(3) *mæsælæn tim-i mesl-e ʔæbumoslem biʃ*
for example team-INDEF like-GEN Abumoslem more
ʔæz jek miljard pul-e næqd dad
from one milliard money-GEN cash give.PAST.3SG

rezayæt *gereft*
satisfaction get.PAST.3SG
'For example, a team like Abumoslem paid more than one milliard and acquired (its) consent.'
(Sport from the Second Channel Viewpoint, November 5, 2011)

3.3 *Adversative conjunctions*

The adversative ties indicate a contrastive relation; these conjunctions are used when a contradictory proposition is appended to the previous one, such as: /*ʔæmma, væli, axe, laken, monteha, bælke*/ 'but' (Roberts et al. 2009). The following example contains an adversative conjunction:

(4) *ʔin* *hæm* *forsæt* *ni-st* *tozih*
This too opportunity NEG-be.PRES.3SG explanation

be-d-im *<u>væli</u>* *hærækat* *biʃ-tær* *do*
SUB-give.PRES-1PL but movement.PL more-COMP two

næfær-æst
person-be.PRES.3SG
'We do not have enough time to explain (these movements), but these movements are mostly done by two persons.'
(The Cradle of Health, November16, 2011)

3.4 *Developmental markers*

While associatives and some additives help the hearer to associate the given information together, developmental markers do the opposite and lead the hearer to move on to the next point in discourse. They represent a new development in an argument or a story. This is especially seen in SOV languages, which allow several subordinate clauses to come after the main verb. Developmental markers are usually attached to the end of a subordinate clause (Dooley & Levinsohn 2001). These new developments contain changes in the story setting, time, place, or the main subject (Levinsohn 2000). However, in order to use developmental markers, the new information not only should contain changes, but also it should represent a new step or development in the story or argument (Roberts et al. 2009). Roberts et al. (ibid.) states that Persian language does not have developmental markers dedicated to this function. However, it has some conjunctions that can be signals of a new development. These are /*bæʔd*/ 'then', /*ta*/ 'until', /*belæxære*/ 'finally'. Consider the following example from the research corpus:

(5) *sohbæt* *kon-im* *dær* *mored-e* *ʃærayet-o*
talk do.PRES-1PL in case-GEN condition.PL-OM

hal-o *hæva-j-e* *mizbani-j-e* *tork-ha*
condition-OM air-EP-GEN hosting-EP-GEN Turk-PL

bœʔd	*mizan-e*	*hemayœt-i*	*ke*	*ʔirani-ha*
then	amount-GEN	support-REST	that	Iranian-PL

daʃtæn	*ʔæz*	*ʔin*	*mosabeqat*
have.PAST-3PL	from	this	match.PL

'(Let's) talk about the quality of Turkey's hosting, then the extent of support which Iranian had about these competitions.'

(Friday with Sport, November 11, 2011)

4. Method and material

The present study determines the frequency of application of conjunctions in terms of associative, additives, adversatives, and developmental markers in sport live radio and TV talks that are most similar to daily conversations, because they are less formal and less planned. The research corpuses consist of around 30,000 words extracted from 20 sport live radio and TV Iranian talks produced in November 2011, which were selected randomly. The radio programs include The World of Football Sport, Towards Glory, Science and Sport, Fall in Step with Sport, Fall in Step with the League, Morning and Sport, The Cradle of Health, and The World of Wrestling Sport. Also, the TV programs are: Sport from the Second Channel Viewpoint, Ninety, Everyday Sport, The Golden Circle of Wrestling, Friday with Sport, Today Sport, People and Sport, and Citizenship Sport. The theoretical framework of Dooley & Levinsohn's (2001) view on cohesion system was adopted to analyze these sub-types in the research data.

For determining the occurrence frequency of conjunctions device in each corpus, descriptive statistics is applied. Like other cohesive devices, conjunctions have explicit countable linguist markers. Thus, in order to give a more accurate account of this device sub-categories represented in the radio and TV samples, the number of the occurrence of those cohesive devices appropriately used in the two sets of corpus are calculated. By finding the extent to which each sub-type of conjunctions is applied in sport live radio and TV talks, the percentage of occurrence of each sub-type in the two sets of data can be evaluated. Accordingly, the most and the least frequently used sub-types can be determined. The Independent Samples T-test is taken to clearly compare the data at hand and to illustrate whether the differences between the mean percent of conjunctions are meaningful or not. If it is so ($p<0.05$), it will be concluded that the differences between the applications of conjunction device in the two corpuses are statistically significant, i.e. sport live radio and TV programs are different in the application of that device. But if it is not the case, we realize that the radio and TV data are similar in the application of that device. In other words, the extent of utilization of each device in each corpus shows how speakers in sport live radio and TV talks apply each sub-type of conjunctions to best transfer their intention to their audiences and help them find an adequate mental representation to entirely understand what they really say.

5. Results and discussion

The following section presents the results of conjunction device analysis sub-types:

5.1 *Analysis of associative conjunctions*

Table 1 contains descriptive statistics for associative conjunctions:

Associative conjunctions	TV		Radio	
	Frequency	Percentage	Frequency	Percentage
	441	48.40	475	62.33
Total	911	100	762	100

Table 1 *The frequency and percentages of occurrence of associative conjunctions*

Based on Table (1), there are 475 cases of this sub-type in the radio data, and 441 cases in the TV corpus. To address our minor research question, i.e. Do associatives have the same frequency of occurrence in sport live radio and TV talks? the employed T-test is presented in Table 2:

		t-test for Equality of Means						
							95% Confidence Interval of the Difference	
		T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Associative conjunctions	Equal variances assumed	1.553	18	.138	3.40000	2.18937	-1.19969	7.99969
	Equal variances not assumed	1.553	14.878	.141	3.40000	2.18937	-1.26985	8.06985

Table 2 *Independent Samples Test for associative conjunctions*

The results of Table 2 reveal that in associatives, t is 1.553 and df is 18. Therefore, p is equal to 0.138 ($p>0.05$). Thus, statistics reported that there are similarities in the application of associative conjunctions in the radio and TV data. Accordingly, the research null hypothesis which indicates “there are not any significant differences in the application of associative conjunctions in the research corpus” will be approved. Also, the frequency and percentages of occurrence of associatives suggest that associatives are the most productive kinds of conjunctions which are used in radio and TV communication. So, it can be concluded that associatives have an important role in making sport live radio and TV talks cohesive. Thus, participants in such programs tend to resort more to associatives in order to communicate more comprehensibly.

5.2 *Analysis of additive conjunctions*

Table 3 illustrates the frequency and percentages of occurrence of additive conjunctions:

Additive conjunctions	TV		Radio	
	Frequency	Percentage	Frequency	Percentage
	316	34.68	207	27.16
Total	911	100	762	100

Table 3 *The frequency and percentages of occurrence of additive conjunctions*

As Table 3 shows, there are 207 cases of additives in the radio corpus, and 316 cases in the TV data. To address the minor research question, the T-test is shown in Table 4 as follows:

		t-test for Equality of Means						
							95% Confidence Interval of the Difference	
		T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Additive conjunctions	Equal variances assumed	-6.109	18	.000	-10.90000	1.78419	-14.64844	-7.15156
	Equal variances not assumed	-6.109	17.955	.000	-10.90000	1.78419	-14.64911	-7.15089

Table 4 *Independent Samples Test for additive conjunctions*

According to Table 4 for additives the amount of t is equal to -6.109 and df is 17.955. So, p is 0.000 ($p<0.05$). These data illustrate that additives have a significant relation in their utilization in the research corpus. Thus, the research null hypothesis which shows “there are not any significant differences in the application of additive conjunctions in the research corpus” will be rejected. Moreover, Table 3 reveals that the second most application of conjunctions is related to additives, in which TV programs use significantly higher number of additive conjunctions. So, speakers in TV talks rather than participants in sport live radio talks tend to have a more understandable communication by the use of additives.

5.3 *Analysis of adversative conjunctions*

Table 5 demonstrates descriptive statistics for the score of each variable:

Adversative conjunctions	TV		Radio	
	Frequency	Percentage	Frequency	Percentage
	74	8.12	38	4.98
Total	911	100	762	100

Table 5 *The frequency and percentages of occurrence of adversative conjunctions*

Based on Table 5, there are 38 cases of adversative conjunctions in the radio group, and 74 cases in the TV group. To address our minor research question, i.e. Do adversative conjunctions have the same frequency of occurrence in sport live radio and TV talks? the employed T-test is shown below in Table 6:

		t-test for Equality of Means						
							95% Confidence Interval of the Difference	
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Adversative conjunctions	Equal variances assumed	-5.692	18	.000	-3.60000	.63246	-4.92874	-2.27126
	Equal variances not assumed	-5.692	17.991	.000	-3.60000	.63246	-4.92879	-2.27121

Table 6 *Independent Samples Test for adversative conjunctions*

According to the Table 6, df is equal to 17.991 and t is equal to -5.692. Also, the amount of p is smaller than 0.05 (p= 0.000). So, this is a statistically significant relation and leads us to the conclusion that there are differences in the utilization of adversatives in the research data. Therefore, the research null hypothesis which states that “there are not any significant differences in the application of collocation device in the research corpus” will be rejected. In addition, as far as the use of adversatives is concerned, the TV data report higher extent of adversative application. Thus, participants in TV talks may also resort to adversatives as a third device to talk cohesively.

5.4 *Analysis of developmental markers*

Table 7 reports descriptive statistics for the score of developmental markers:

Developmental markers	TV		Radio	
	Frequency	Percentage	Frequency	Percentage
	80	8.78	42	5.51
Total	911	100	762	100

Table 7 *The frequency and percentages of occurrence of developmental markers*

As displayed in Table 7, there are totally 42 cases of developmental markers occurrence in the radio data, and 80 cases in the TV data. To address our minor research question, i.e. Do developmental markers have the same frequency of occurrence in sport live radio and TV talks? T-test is employed. Table 8 illustrates the result of T-test considering different types of the developmental markers device as follows:

		t-test for Equality of Means						
							95% Confidence Interval of the Difference	
		T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Developmental markers	Equal variances assumed	-5.879	18	.000	-3.80000	.64636	-5.15795	-2.44205
	Equal variances not assumed	-5.879	14.765	.000	-3.80000	.64636	-5.17959	-2.42041

Table 8 *Independent Samples Test for developmental markers*

According to Table 8, the independent sample test shows that for developmental markers the amount of df is 14.765, and t is equal to -5.879, and p is 0.000 ($p<0.05$). Consequently, this is a statistically significant relation, i.e. there are differences in the application of developmental markers in the corpus. As a result, the research null hypothesis which suggests that "there are not any significant differences in the application of collocation device in the research corpus" will be rejected. Like additives and adversatives and contrary to additives, developmental markers also are applied more by TV participants. So, the TV corpus exceeds the radio data in the use of developmental markers.

5.5 *Total analysis of the conjunction device*

Table 9 illustrates the frequency and total percentages of the conjunction sub-types:

Conjunction devices	TV		Radio	
	Frequency	Percentage	Frequency	Percentage
Associative	441	48.40	475	62.33
Additive	316	34.68	207	27.16
Adversative	74	8.12	38	4.98
Developmental markers	80	8.78	42	5.51
Total	911	100	762	100

Table 9 *the frequency and percentages of conjunction sub-types*

Table 9 shows that there are 762 cases of conjunction device in the radio corpus and 911 cases in the TV corpus. In both corpuses associative conjunctions are the most frequently used sub-devices: 62.33% of the applied conjunctions in the radio sample and 48.40% of conjunctions belong to this category. So, associatives are the most prominent device in making such talks more comprehensible. The second frequent sub-category in both groups is additive conjunctions with 27.16% of occurrence in the radio data and 34.68% in the TV data. The third rank belongs to developmental markers. Here, there are 5.51% of occurrence of this device in the radio and 8.78% in the TV counterpart. Finally, the least frequently used sub-category in the radio and TV data is adversative conjunctions (4.98% in radio and 8.12% in TV sample).

To address our minor research question, i.e. Do conjunctions have the same frequency of occurrence in sport live radio and TV talks?, the final T-test is presented in Table (10):

		t-test for Equality of Means						
							95% Confidence Interval of the Difference	
		T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Conjunctions	Equal variances assumed	-4.491	18	.000	-14.90000	3.31746	-21.86973	-7.93027
	Equal variances not assumed	-4.491	17.560	.000	-14.90000	3.31746	-21.88225	-7.91775

Table 10 *The frequency and percentages of occurrences of conjunctions*

Here, t is equal to -4.491 and df is equal to 17.560. Therefore, p is 0.000 ($p<0.05$). It shows that there is a significant difference in the application of conjunctions device in the research corpus. Thus, the research main null hypothesis which states that “there are not any significant differences in the application of conjunctions in the research corpus” will be rejected. Moreover, as the frequency and percentage of occurrence of conjunctions in all sub-types suggest, the TV data compared with the radio ones are relatively richer in the use of conjunctions. Therefore, people in TV talks rather than participants in sport live radio talks tend to have a more comprehensible communication by resorting to conjunctions.

Furthermore, the order of occurrences of conjunction sub-types both in the radio and TV corpuses are as follows:

Associatives > additive > developmental markers > adversatives

Therefore, associatives are the most frequent sub-type of conjunctions and adversatives are the least.

6. Conclusion

The present study had compared the utilization of conjunction devices in Iranian sport live radio and TV talks. The research sample included 30,000 words extracted from 20 different sport live radio and TV programs in Iran. The research findings have highlighted an important function of conjunctions in sport live radio and TV talks: People tend to employ a considerable amount of conjunction sub-types in order to communicate intelligibly. The study clarified that associatives are the most productive kind of conjunctions, but there are not any significant differences in their application within the two sets of research corpus. However, the application of adversatives, additives and developmental markers showed a meaningful relation in the radio and TV corpus, i.e. there were significant differences in their extent of utilization in the research data. The TV corpus exceeded the radio data in the use of these three sub-types. In addition, associative conjunctions were the most frequently used sub-type of conjunctions, followed by additives. This suggests that, to have a cohesive speech, participants in sport live radio and TV programs tend to resort more to these two sub-types of conjunctions rather than the other two. Hence, associatives and additives have important roles in a comprehensible communication. In addition, adversatives were the least used sub-type of conjunctions. So, it can be concluded that adversatives do not play a significant role in making such talks cohesive.

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List of Abbreviations

1	1st person
2	2nd person
3	3rd person
COMP	comparative
EP	epenthesis
GEN	genitive
IMP	imperfect tense
INDEF	indefinite
NEG	negative
OM	object marker

PAST	past tense
PL	plural
PRES	present
REST	restrictive
SG	singular
SUB	subjunctive

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