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A Corpus-based Multidimensional Analysis of Linguistic Variation in Pakistani Newspapers Columns of Opinion during Covid-19

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Abstract

Growing research of language variation has resulted into the recognition of registers or language use in various everyday situations. The present day pandemic of COVID- 19 is one of these situations which have affected the use of language Therefore; this study has attempted to detect the effect of Covid-19 on the language of leading newspapers in Pakistani print media. It is a corpus study based on quantitative approach to analyze the English language in the columns of opinion in the leading newspapers of Pakistan in the wake of Covid-19 published during the period of 15th March to 15th August 2020. The research tools comprise computer assisted corpora of about 2.6 lac words from the selected newspapers and the Multidimensional Analysis Tagger (MAT) with 67 linguistic features. The data has been collected through counting, normalization and standardization of frequencies of parts of speech co-occurring per thousand words as pointed out by Biber (1988). The data has been analyzed by factor analysis and calculation of dimension scores. The statistical ANOVA test has also been conducted to know the significance of variance. The results of this study have been compared with the results of the previous studies on Pakistani political columns and on press reportage in Pakistani print media. Comparison found that language use in Pakistani English newspapers during the COVID-19 is less informational, less narrative, more context dependent, more overt expression of persuasion, and less technical, informal and abstract than the language of political columns and press reportage before COVID- 19.

1. Introduction

Growing concept of language variation has resulted in the recognition of situational use of language also called register. Different situations have varying and detectable effect on the language users and their linguistic choices or features. Press reportage is also a register which is directly under the influence of changing contexts and situations in which language is being used. The world has been experiencing the fatal effects of COVID- 19 since early December 2019. In Pakistan the first wave of COVID-19 came in March 2020 when government locked all the educational institutions and imposed smart lockdowns in the markets to curtail the spread of the virus. Different steps were taken by Pakistani government during 2020 to save the nation from the fatal effects of COVID-19. In March 2021, came the second wave of COVID-19 with its serious and fatal effects on almost all walks of life. Media houses especially print media such as

newspapers reported in the language which is being supposed under the crucial effect of changing context or situation named COVID-19.

As COVID-19 has affected all the fields of human life, authors became interested in knowing its effect, in the form of linguistic variation, on the language of newspapers columns of opinion in Pakistani print media. So far as the rationale for this study is concerned, sub-registers are hardly compared to study any variation in a register, therefore, Authors' focus was not on comparing the sub-registers but on knowing the effect of COVID-19 on the language of newspapers in Pakistani print media. However, comparison of the results of previous and current studies on the same register was necessary to highlight the difference before and after COVID-19. Another reason for this study on the columns of opinion was the research gap in this sub-register. Besides, in previous studies on Pakistani English in newspapers the situational use of language was predetermined and no study was reported in the changed context like COVID-19; therefore, the current study is significant as it is supposed to contribute to the recognition of the effect of changing context of language in use.

Thus, aim of this study was to highlight the effect of COVID-19 on the language of newspapers particularly the columns of opinion in Pakistani print media. This aim was achieved through the following research question: What is the effect of COVID-19 on the use of language in the columns of opinion in Pakistani English newspapers?

Various approaches are found for the study of language variation. Among these approaches are genre study, study of the style and the study of register. In genre study, the conventional features like the format of the text and rhetorical expression are examined and the features which occur only once in a text are analyzed. In the study of style, lexical and grammatical features are explored and dependence is on the persistent linguistic items whereas in the study of register, both linguistic features and communicative functions are analyzed.

Biber (1988) reported his corpus-based work titled as *Variation Across Speech and Writing*. In this work, sets of co-occurring linguistic features were examined with the belief that individual linguistic features are not sufficient to highlight the language variation whereas the sets of co-occurring linguistic features serve the communicative function. Biber (1988) named the communicative function as dimension and introduced five dimensions based on the negative and positive frequency of sets of co-occurring linguistic features in a register. This model was known as Multidimensional Analysis (MDA). Ahmad (2016) used this model for the study of press reportage in the print media of Pakistan. Aleem (2018) worked on political columns in English newspapers of Pakistan and found that Pakistani columns of opinion are less informative, less narrative, more context dependent, and more overt expression of persuasion and less abstract than the press reportage in general studied by Ahmad (2016).

The study was delimited to the newspapers columns of opinion because they are more susceptible to the changing situations than all other types of press reportage. That's why a corpus of 2.6 lac words of English language in the columns of opinion in Pakistani newspapers was made. The study was started with the hypothesis that COVID-19 has also affected the language of people giving their views in opinion columns of newspapers. Notable effect of the changed context in the form of COVID-19 has been found and reported on different dimensions of language used in newspapers of Pakistani print media.

2. Review of Literature

During the review of the literature authors' special focus has been on the corpus-based studies on the register or sub-registers of journalese. Firstly, different factors which affect a language were considered and findings of notable studies in this regard have been summarized and reported in this section. Secondly, nature of the columns of opinion was examined in the light of previous works on journalese. Thirdly, the authors critically examined the different approaches used for the analysis of a register and summarized their recommendations in this regard. Fourthly, suitability of corpus based multidimensional analysis was judged in the light of past studies on a register. Finally, research gap in the study of journalese from different angles was marked and that has been reported here in this section.

However, authors' interest has also been on critical examination of the role of context in a register because the principal aim of the current study was to highlight the effects of COVID-19 as a different and changed context of a register already worked upon. The purpose of literature review was to mark the significance, the research gap, need for the analysis of variation in the language of columns of opinion published in the English newspapers of Pakistan in the wake of COVID-19 and suitability of methodology for this study. Following are the key points on the basis of the literature reviewed.

There are many factors such as class, race, region, gender, environment and context of non-native's use which affect language use and cause variation (Trudgill, 2000). On the other hand, R. Mahmood (2009) is of the opinion that the rate of change in language differs from language to language. This rate of difference or deviation has been referred by Azher (2016) as dimension, that is, changes in language with the growing number of non-native also known as situational contexts and the varieties of language related to these varying contexts are referred to as registers. Different researchers (Ahmad, 2016; Biber & Conrad, 2001 and Mahmood, 2009) have associated register variation with the contextual use of language. Azher and Mahmood (2016) view that registers are the language varieties which are used on particular occasions.

So far as the columns of opinion are concerned, the language users write on the basis of their personal experiences and observations. Sometimes they are having a lot of information to share with their readers and they narrate long stories based on different contexts. Similarly, they may also be interested in persuading their readers on the basis of their subjective approach or they may be less or more abstract or technical in giving their opinion. In fact all depends on the context in which they are writing or giving their opinions. These contexts decide the linguistic choices or co-occurring sets of linguistic features known as dimensions of language use.

As far as the analysis of registers is concerned, Ahmad (2016) has recommended to analyze the context or situation of language use, sets of linguistic features and the relationship between the context and the features. Azhar (2016) studied academic register through MDA. Various studies have been conducted in Pakistan during the last two decades which employed MDA analysis of registers such as Talaat (2002) used the same approach for the study of functions and forms of English in the study titled *The Form and Functions of English in Pakistan* and found that Urdu language has an impact on Pakistani variety of English. Mahboob and Ahmad (2004) replicated MDA to take a phonological and historical overview of English in Pakistan. Rasheed (2009) estimated the attitude of users of English towards Pakistani English by using MDA. Mahmood (2009) did a corpus based analysis of Pakistani English by replicating MDA. Similarly, Ijaz (2019) worked on Pakistani textbooks in English by replicating MDA.

In all the aforementioned studies it has been asserted that various registers of Pakistani English exhibit their own norms and trends. However, no final verdict on the separate status of Pakistani English has been assumed and all these studies recommend a need for the additional investigation of Pakistani variety of English. In view of the claims, a research gap in the thorough exploration of journalese as register of Pakistani English has been found and noted that different sub-categories of journalese have been studied. However, no study has been conducted in this subcategory of Pakistani press reportage which highlights direct effect of changed context on linguistic variation.

After Biber's (1988) MDA, researchers from the different corners of the world have reported their findings on various registers in the English language. Gardezi and Nesi (2010) reported their findings on the variation in the writings of the Britain and Pakistani students in the department of Economics. Sardinha, et al. (2014) conducted a research on register based variation in Brazilian Portuguese and studied 48 registers. Even Biber and Egbert (2016) did not stop their study of the registers in English language and they have reported their findings on the variation in the register of searchable web. Azher (2016) studied academic register and Ahmad (2016) studied English language of press reportage in print media of Pakistan. Ali (2017) reported his findings on the language of fiction. Ijaz (2019) worked on the language of textbooks. In all of these studies the common points are the corpus methodology and MDA of the one or the other registers of Pakistani variety of English. These studies have verified the claim that Pakistani variety of English has its own norms and trends which are governed by the changing context or situations of language use. In the afore-mentioned studies no decisive judgment has been given because many of the registers of Pakistani variety of English are to be explored yet. In present study, the focus has been not on an unexplored register but a changed context of a register. This changed context has come forth due to COVID-19. It is not only a changed context but also a suddenly arising situation all over the world affecting every field of life. Besides, this changed context is not a predetermined register but a situation of crisis in the world, therefore, the present study was conducted to point out the effect of this changed context on the linguistic choices of the language users who wrote the columns of opinion in Pakistani English newspapers in the presence of a different contest known as COVID- 19. Viewed in this context this study is not only justified but also another attempt to recognize Pakistani variety of English as well as the growing concept of language variation due to changing situations or context of language use.

So far as the perspectives to the study of language variation are concerned, Biber and Conrad (2009) consider that varieties of the text in English language can be analyzed from different perspectives. Azhar (2016) states further that all the studies on registers in English language can be divided into two groups: the first group includes all those works which are based on a separate feature in language such as the works completed by Crompton (1997), Grabe & Kaplan (1997), Holmes, (1988), and Marco (2000) whereas the second group includes the research works on sets of linguistic choices or items which co-occur in a register such as the studies conducted by Conrad (1996), Biber (1988) , Moran (2011), Gray (2011), and Egbert (2015).

The stance of the aforementioned second group of studies, that is, the study of multiple linguistic items in a register gained a wider acceptance than the study of a single linguistic item. Biber (2009) emphasized that the sets of linguistic items or features determine the difference within or across the registers because every dimension of text in a register is decided on account of certain sets of linguistic, grammatical or lexical items. Actually, the repeated number of

certain sets of linguistic items is specific or particular to some registers while may differ in other registers. This very difference of occurrence gives a linguistic item or set of items the status of feature(s) of a register. The present study falls in the latter category.

Language of newspapers has been studied from many angles. Ahmad (2016) did a corpus based MDA of Pakistani English print media and emphasized Biber's (1988) point of view that individual linguistic features are insufficient for making comparison of registers internally or externally whereas corpus based MDA is the most appropriate approach to study linguistic variation. Anwar and Talaat (2011) in their study of grammatical and syntactic features of Pakistani English newspapers highlighted differences on the basis of culture and context. Actually the corpus based studies have the main advantage of objectivity and verification through replication. On the one hand, with the help of corpus a bulk of text can be handled easily. MDA introduced by Biber (1988) is the most suitable for register studies as Biber (2009) writes that corpus analysis explores the significant difference across different registers.

To summarize the review of literature the authors are of the opinion that the current study is significant as no sub-register has been studied with a changed context or newly arising situation. The corpus based MDA is the most reliable and suitable approach for this study. In addition, the previous studies of Pakistani journalism focused on linguistic variation across the registers but not on the changed context within a sub-register.

3. Research Methodology

It is corpus-based research in which quantitative approach has been used. The numerical frequencies of the co-occurring linguistic features have been analysed statistically.

3.1 Population and Sampling of the Study

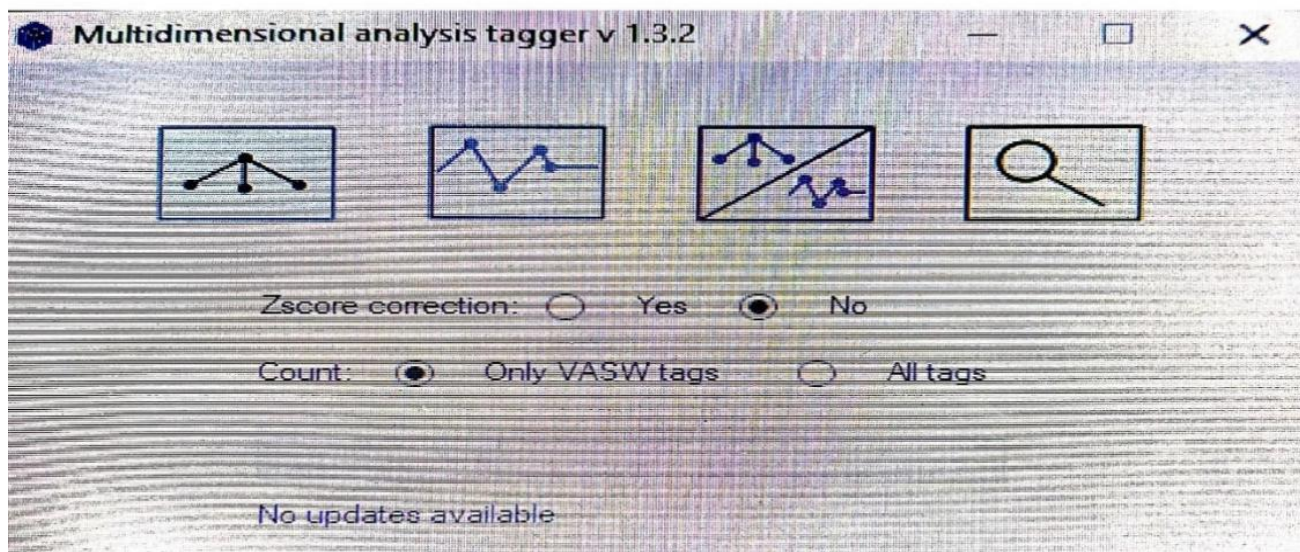
Population of this study comprises all the COVID- 19 related columns published in Pakistani English newspapers. The technique for sampling of data for this study is purposive sampling. Only COVID- 19 related columns of opinion published during the COVID- 19 peak time in Pakistan with effect from March 15, 2020 to August 15, 2020 have been taken from the selected newspapers in Pakistani English, that is, Daily Dawn published from Karachi and Daily Times published from Lahore.

3.2 Data Collection

Collection of data for this study has been done through a corpus of 2.6 lac words of the total text in the columns of opinion in both the selected newspapers in Pakistani English. With the help of computer, a corpus of all the sampled text was prepared so that MDA of the content could be completed on Biber's (1988) five dimensions.

3.3 Research Instrument

The tools for this study are computer assisted corpora of English language used in the columns of opinion in Pakistani English newspapers and the computer soft-ware MAT version 1.3.2 for tagging the data (Fig. 1).

Figure 1*MAT tool used for the analysis*

3.4 Multidimensional Approach

Biber (1988), does not support the idea of analysing a text on the basis of individual linguistic feature because the register based variation cannot be detected effectively through it. Instead, the frequency of co-occurring linguistic features in a text provides sufficient evidence of the communicative functions or dimensions of the text. He is also of the view that the dimensions of the text can be traced by calculating the score of certain linguistic features against each dimension of the text. Initially, he used 67 linguistic features and 150 in later studies for tracing the following five dimensions of the text or content present in the corpus:

1. Involved vs Informational Production
2. Narrative vs Non-Narrative Concerns
3. Context Independent vs Context Dependent Discourse
4. Overt Expression of Persuasion
5. Abstract versus Non-Abstract Information

3.5 Preparation of Corpus

All the COVID- 19 related columns of opinion present in the selected Pakistani newspapers in English were downloaded from their e-papers available on internet. Afterwards, the files were converted into readable plain text file using Abby Transformer software and a corpus of columns of opinion in Pakistani English newspapers containing about 2.6 lac words was prepared.

3.6 Features of the Corpus of Columns of Opinion in Pakistani Newspapers

Following are the features of the corpus of columns of opinion in Pakistani newspapers:

1. It is a corpus of 2.6 lac words.
2. It represents two major newspapers in English language in Pakistan.
3. All the text in this corpus is written in the context of COVID- 19

3.7 Coding of the Texts in Corpus

Corpus methodology involves the analysis of multiple files therefore different codes are assigned to each text in different groups. The current study is involving two groups of columns of opinion: the Daily Dawn group and the Daily Times group. So after converting data into plain text, codes were assigned to each group under the title of relevant newspaper. Through this process the counting of the frequencies were calculated.

3.8 Data Analysis

The collected data was put into Multidimensional Analysis Tagger version 1.3.2 for tagging of 67 linguistic features and calculating their frequency against each of the five dimensions named in Biber's 1988 MDA model. The obtained results were compared with the previous study on Pakistani political columns done by Aleem (2018) and Ahmad (2016). Then statistical analysis was done through ANOVA two-factor without replication test to highlight the linguistic variation across the columns of opinion in Pakistani English newspapers published before and after or during the COVID- 19 in Pakistan.

3.9 Steps of Data Analysis

Here is the list of steps involved in data analysis.

- a) The data available in the form of corpus was tagged.
- b) Frequencies of linguistic features against dimension were counted.
- c) Analysing factors
- d) Computing scores of dimensions
- e) Comparing the scores of dimensions
- f) Using statistical test to evaluate the significance level

3.10 Tagged Linguistic Features and Dimensions Details

The linguistic features tagged in this study and the detail of positive and negative scores of these features on each dimension can be seen in the manual of MAT version 1.3.2 available on internet.

4. Data Analysis and Discussion

Following is the brief description of the analysed data. The data has been analysed and presented here in three sections. In first section, the key values in form of mean scores of the current study against each dimension and the previous studies done by Aleem (2018) and Ahmad (2016) have been stated in table 4.1 followed by the discussion and results of ANOVA two-factor without replication test stated in table 4.2. In second section, graphic representations of comparative mean score values against each dimension (1-5) have been shown separately. In the third section of the data analysis, one examples from the text of Daily Times and one example from the text of Daily Dawn tagged through MAT for this study have been included for the readers of this article and in the final section of data analysis, comparisons of linguistic features on each of the five dimensions of this and previous studies have been shown graphically. The conclusion of this study has been drawn on the basis of all the afore-mentioned sections in data analysis.

Table 1*Dimension Wise Comparison of Mean Scores of Current and Previous Studies*

Filename	Dimension1	Dimension2	Dimension3	Dimension4	Dimension5
Columns of -14 Opinion (2020)	-1.3	6.7	1.2	2.2	
Political Columns(2018)	-14.7	-1.468	6.08	-1.2	3.94
Press Reportage -20.59 (2016)	1.4	4.8	-2.5	2.0	

In Table 1 above the MAT based dimension scores of the current study and the dimension scores of the Aleem's (2018) study on political columns in Pakistani English newspapers as well as the dimension scores of Ahmad's (2016) study on Pakistani reportage have been stated for the sake of comparison of the scores of each dimension to high light linguistic variation in the context of COVID- 19. The results stated in this table have been also analysed statistically by using ANOVA: two factor test.

Table 2*Results of ANOVA Two-factor Without Replication*

SUMMARY	Count	Sum	Average	Variance		
A	5	-5.2	-1.04	60.863		
B	5	-7.28	-1.456	65.3450		
C	5	-14.89	-2.978	103.713		
D1	3	-49.29	-16.43	13.1017		
D2	3	-1.3	-0.43333	2.52333		
D3	3	17.58	5.86	0.9388		
D4	3	-2.5	-0.83333	3.52333		
D5	3	8.14	2.713333	1.13853		
ANOVA						
Source of Variation	SS	Df	MS	F	P-value	F crit
Rows	10.4089733	2	5.204487	1.29939	0.32458	4.45897
Columns	887.645573	4	221.9114	55.4043	7.16E-0	3.83785
Error	32.0424266	8	4.005303			
Total	930.096973	14				

ANOVA two-factor without replication is the quite suitable test for the analysis of variance within as well as between the groups. In the present study there are two factors to be analysed. The first factor is the score of dimensions which have been shown in the rows of the table and the other factor is the dimension-wise score of each group shown in the columns.

On the basis of descriptive statistics as shown in the ANOVA table results BELOW (Table 2), it can be noted that in the rows of all the groups where score of each dimension has been stated, there is no significant variance because the calculated face value (1.29) is less than the tabulated critical face value (4.4). These results are quite expected and relevant because all the three groups belong to the similar kind of the text, that is, newspapers. Thus, as a type of text, there is no significant difference between the three groups. But within the columns of aforementioned table 4.2 where all the three groups have been compared against each dimension, there is significant variance as the calculated face value (55.40) is greater than the tabulated critical face value (3.83). The results lead to the conclusion that changed context in the form of COVID-19 has affected the different dimensions of the language of newspapers columns in Pakistani print media.

4.1 Graphic Representation of Comparative Mean Score Values on D 1 to D 5

Following is the further discussion on variance of all the groups on each dimension.

Figure 2

Comparison of current and previous studies on Dimension 1

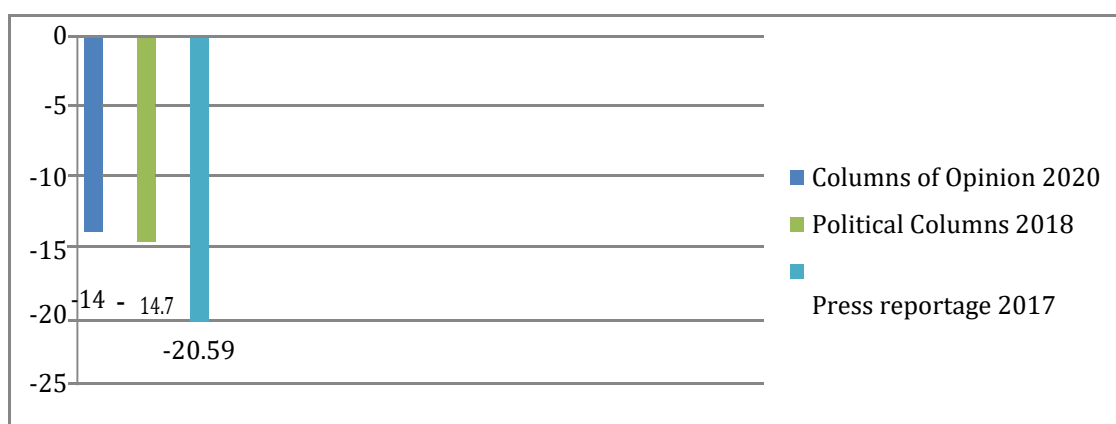


Figure 2 shows mean scores on dimension 1 which is involved versus informative, the columns of opinion (2020), selected for the current study, with the mean score (-14) are less informative than the other two groups with the mean score of (-14.7) for political columns studied by Aleem (2018) and mean score of (-20.5) for Pakistani press reportage studied by Ahmad (2016). The comparison shows that columns of opinion in Pakistani English newspapers are also informative like other two studies mentioned in the table but they have low mean score values. The reasons for this low score values are the context of language in use, that is, the COVID- 19 and lack of information in this regard. It can also be concluded on the basis of these results that changed context of language use also affects the use of linguistic features in the discourse. If one has complete information of the context in which language is being used, one can be more certain about what to say. As every context of language demands a particular knowledge about it, frequency of sets of co-occurring linguistics features in the discourse increases or decreases accordingly.

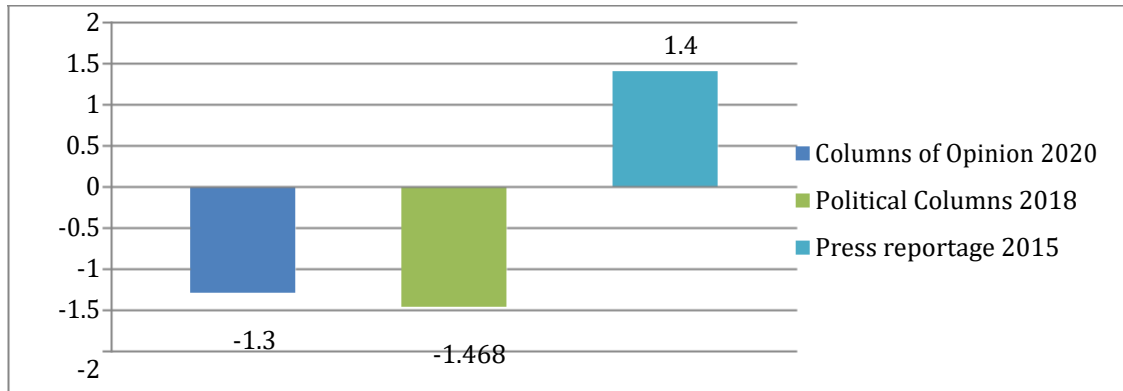
Figure 3*Comparison of current and previous studies on Dimension 2*

Figure 3 shows that on dimension 2 which is narrative versus non-narrative, the columns of opinion (2020), selected for the current study, with the mean score (-1.3) on the negative pole are less narrative than political columns studied by Aleem (2018) with mean score of (-1.46) whereas Pakistani press reportage studied by Ahmad (2016) is more non-narrative with mean score of (1.4) on the positive side of the pole. The comparison shows that columns of opinion in Pakistani English newspapers like political columns are narrative because in the columns of opinion the writer narrates his experiences and observations whereas in general press reportage objectivity is desirable. However, less mean score value of the columns of opinion indicates that context of language in use, that is, the COVID- 19 has affected this dimension of language use.

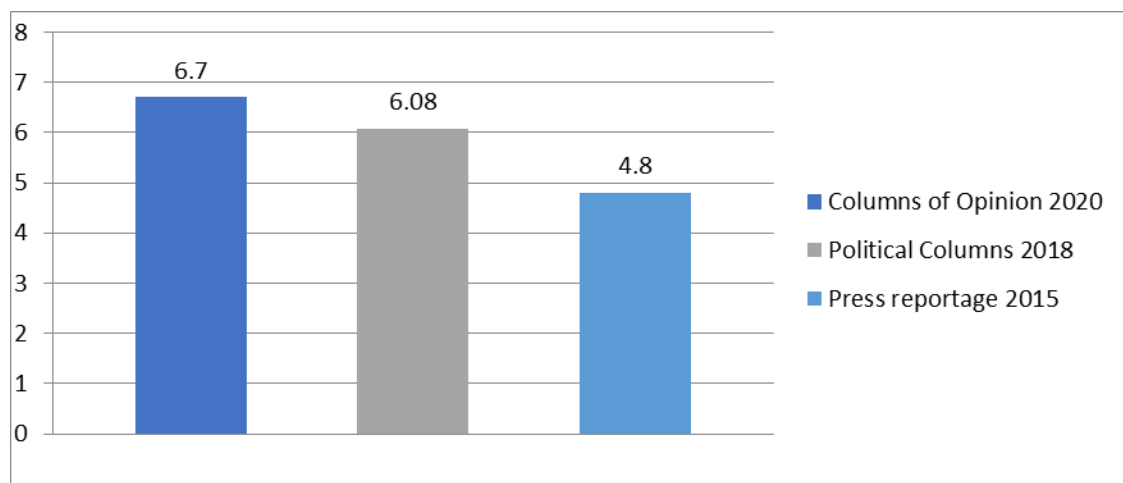
Figure 4*Comparison of current and previous studies on Dimension 3*

Figure 4 shows mean scores on dimension 3 which is context independent discourse versus context dependent discourse. The low score on these dimensions means that the discourse is context dependent with an increased use of adverbs. The adverbs are used to refer context in the form of time, place and manner. Whereas high score on this dimension means that the discourse is context independent with an increased use of nominalizations which pack a great deal of information in a few words. Here, the columns of opinion (2020), selected for the current

study, with the mean score (6.7) which is slightly more than the political columns studied by Aleem (2018) with mean score of (6.08) and Pakistani press reportage studied by Ahmad (2016) with mean score of (4.8) show that they are more context dependent than the other two groups compared in this study.

Figure 5 shows comparison of mean scores on dimension 4 which is overt expression of persuasion. The high score on this dimensions means that the discourse with an increased use of modal verbs among other features is an indication of writer's personal point of view as well as his assessment of likelihood or certainty. Here, the columns of opinion (2020), selected for the current study, with the mean score (1.2) have more overt expression of persuasion than the political columns studied by Aleem (2018) with mean score of (-1.2) and Pakistani press reportage studied by Ahmad (2016) with mean score of (-2.5).

Figure 5

Comparison of current and previous studies on Dimension 4

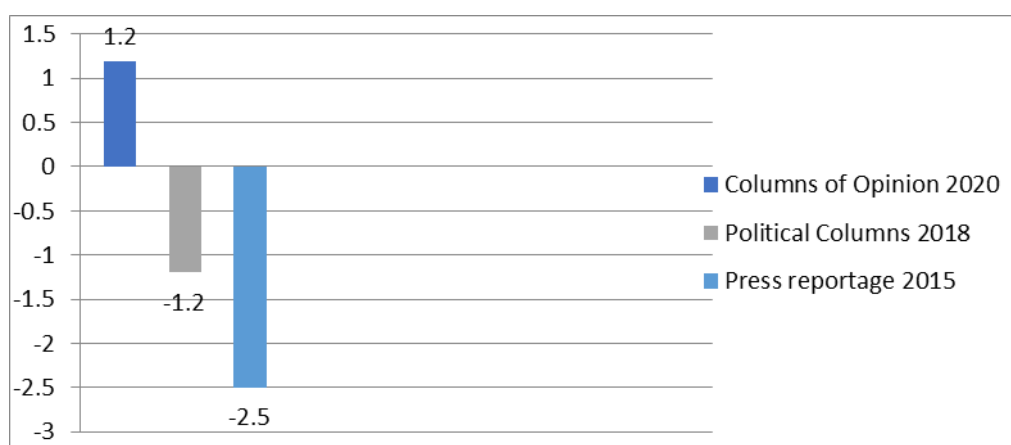
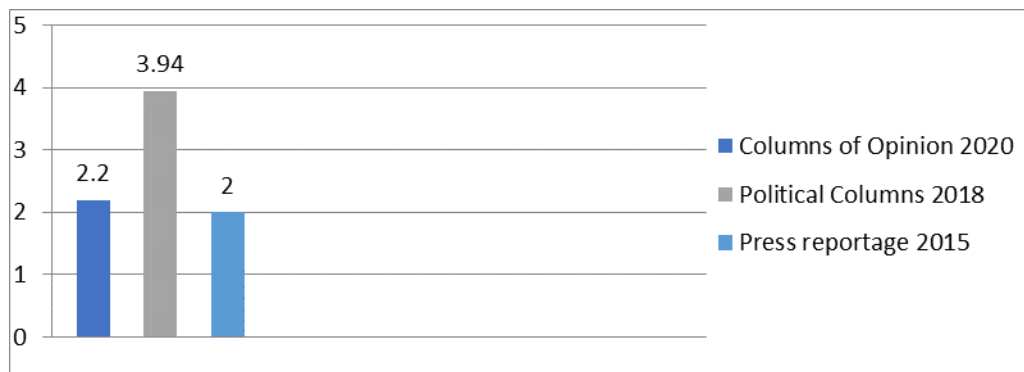


Figure 6 shows comparison of mean scores on dimension 5 which is abstract versus non-abstract information. The high score on this dimensions means that the discourse with an increased use of passive clauses and conjuncts among other features is an indication that writers have provided information in a highly technical, formal and abstract way. Here the comparison shows that columns of opinion selected for this study and compared with the political columns and Pakistani press reportage have a discourse which exhibits less abstract information than the political columns.

Figure 6

Comparison of current and previous studies on Dimension 5



4.2.1 Example of the tagged text from Pakistani columns of opinion in Daily Times

Pak-Corona_NNP economic_JJ turmoil_NN Mohsin_NNP Saleem_NNP Ullah_NNP MARCH_NNP 15_CD ,_, 2020_CD Since_IN the_DT coronavirus_NN outbreak_NN in_IN China_NNP and_CC the_DT increased_VBN number_NN of_IN affecters_NNS reported_VBN in_IN the_DT neighboring_JJ countries_NNS of_IN Pakistan_NNP and CC Iran_NNP ._.

Pakistan_NNP has_VBZ put_VBN in_IN efforts_NNS to_TO curb_VB the_DT reported_VBN COVID-19_NN cases_NNS by_IN sealing_VBG off_RP its_PRP\$ border_NN after_IN more_JJR than_IN 21_CD cases_NNS have_VBP emerged_VBN until_IN now_RB ._.

4.2.2 Example of the tagged text from Pakistani columns of opinion in Daily Dawn

Home_NNP learning_VBG BY_IN N_NNP E_NNP D_NNP A_NNP M_NNP U_NNP L_NNP J_NNP I_NN |_NN 8\15\2020_CD 12:00:00_CD AM_NNP WHILE_NNP many_JJ schools_NNS have_VBP been_VBN making_VBG a_DT tremendous_JJ effort_NN to_TO go_VB digital_JJ ,_, they_PRP are_VBP faced_VBN with_IN challenges_NNS of_IN lack_NN of_IN home_NN learning_VBG support_NN ._.

Parents_NNS have_VBP found_VBN themselves_PRP taking_VBG on_RP far_RB more_RBR responsibility_NN than_IN they_PRP do_VBP when_WRB children_NNS are_VBP dropped_VBN to_TO school_NN for_IN a_DT number_NN of_IN hours_NNS each_DT day_NN ._.

4.3 The Frequency of the Co-occurring Sets of Linguistic Features on D1 to D 5

The frequency of the co-occurring sets of linguistic features decides the dimension of the text. Below is the graphic representation of the linguistic features of the current and previous studies on newspapers.

Figure 7 shows that the frequency of nouns, attributive ajectives and prepositions in the columns of opinion (2020) selected for this study is less than the frequency of the same features for the other two groups studied in the past. It means that Pakistani columns of opinion are less informative than Pakistani political columns and press reportage in general. The reason for it may be the lack of authentic information about COVID-19.

Figure 7

Comparison of the linguistic features of D 1

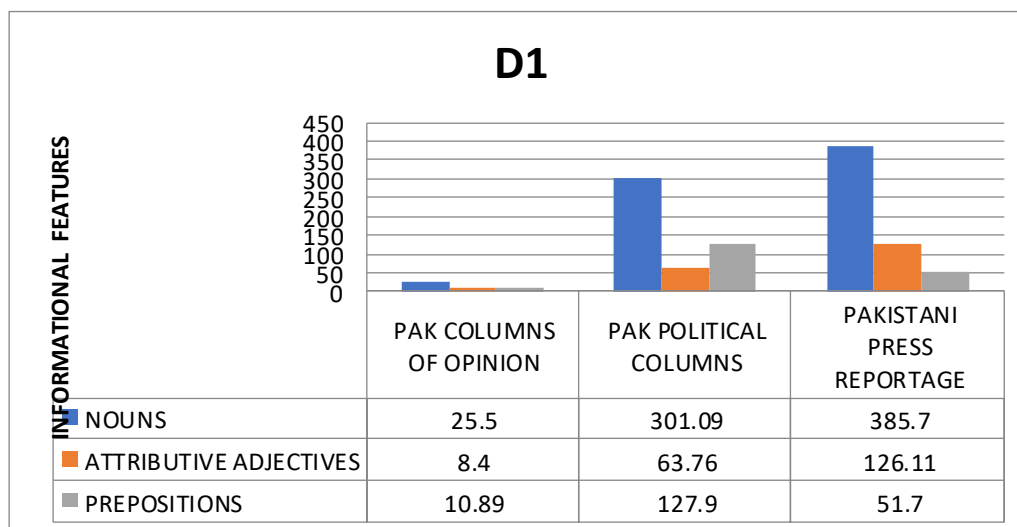


Figure 8 shows that the frequency of past tense and personal pronouns in the columns of opinion (2020) selected for this study is less than the frequency of the same features for the other two groups studied in the past. It means that Pakistani columns of opinion are less narrative than Pakistani political columns and press reportage in general.

Figure 8
Comparison of linguistic features of D 2

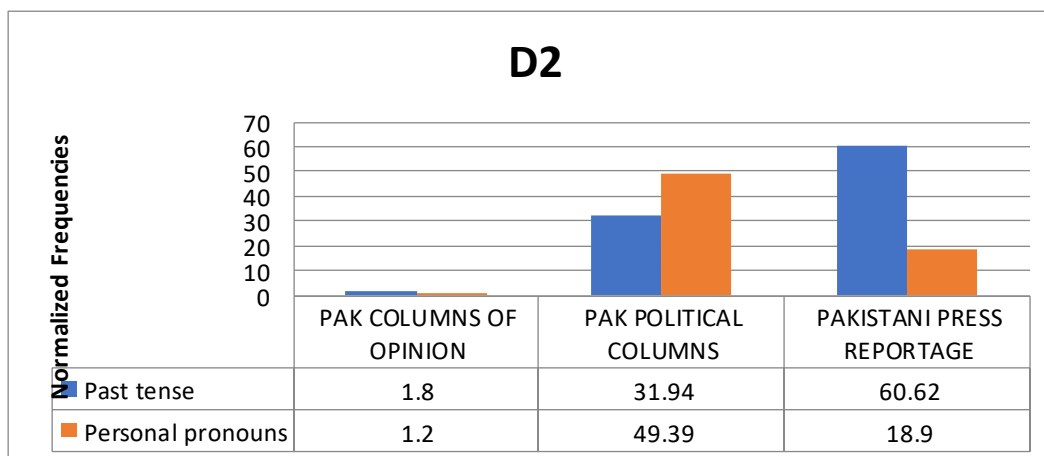


Figure 9 shows that the frequency of linguistic features on D 3 in the columns of opinion (2020) selected for this study is less than the frequency of the same features for the other two groups studied in the past. It means that Pakistani columns of opinion written in the wake of COVID-19 are more context dependent than the political columns and Pakistani press reportage.

Figure 9
Comparison of linguistic features on D 3

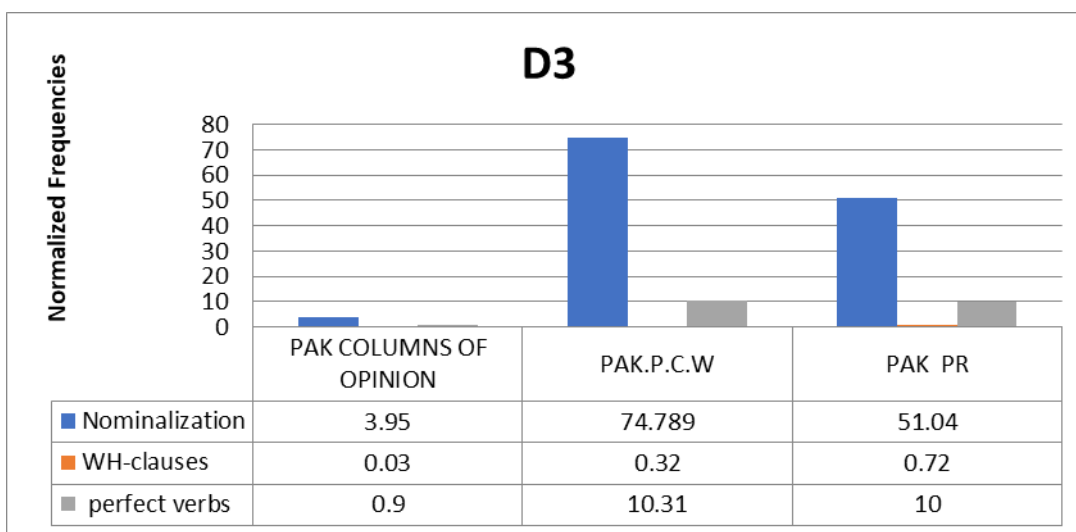


Figure 10 shows that the frequency of linguistic features on D 4 in the columns of opinion (2020) selected for this study is less than the frequency of the same features for the other

two groups studied in the past. It means that Pakistani columns of opinion written in the wake of COVID-19 have an increased overt expression of persuasion.

Figure 10
Comparison of linguistic features on D 4

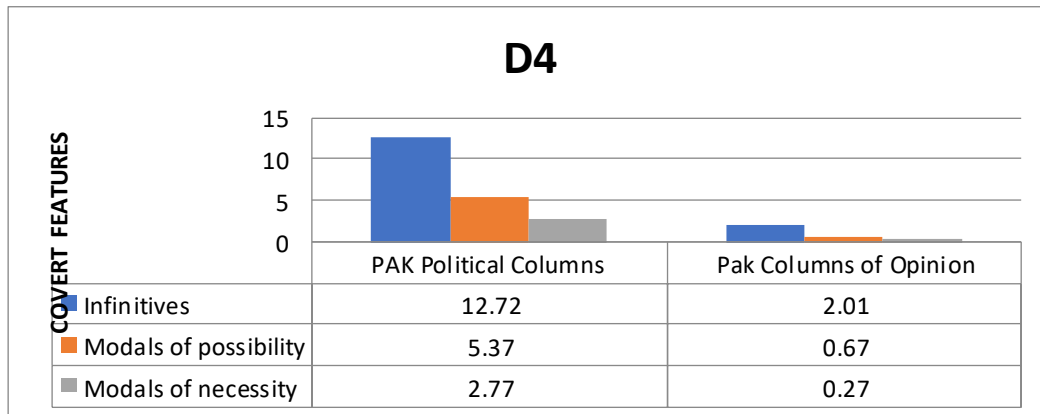
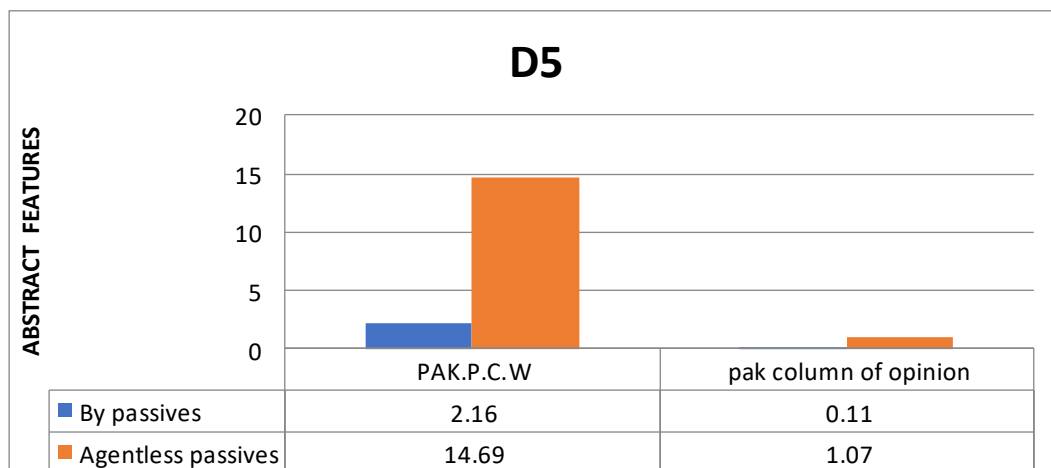


Figure 11 shows that the frequency of linguistic features on D 5 in the columns of opinion (2020) selected for this study is less than the frequency of the same features for the other two groups studied in the past. It means that Pakistani columns of opinion written in the wake of COVID-19 have a less technical, formal and abstract style.

Figure 11
Comparison of linguistic features on D 5



These findings are significant for the future research on a sub register with a new or suddenly arising context. The researcher can study how the language of a same register changes in a new context.

5. Conclusion

Finally, the study has come to the conclusion that there is sufficient linguistic variation across the press reportage in general or political columns written before COVID-19 and the columns of opinion in Pakistani English newspapers written during the wake of COVID-19. The study has also accepted its hypothesis that changed context of language use affects the co-occurring sets of linguistic features in a discourse and COVID-19 has also affected the language of newspapers' columns of opinion. It is important to mention that effect of COVID-19 has been detected on all the five dimensions of language use in the columns of opinion in Pakistani English newspapers. The study has noted that COVID-19 has affected the dimension 1 as columns of opinion are less informative than press reportage in general and the political columns written before COVID-19. Similarly, it has affected the dimension 2 as the discourse in columns of opinion is less narrative than that of press reportage in general and the political columns written before COVID-19. In the same way on dimension 3 the discourse in the columns of opinion has been found more situation dependent than the press reportage in general and the political columns written before COVID-19 and on dimension 4 it has been found more persuasive than the press reportage and the political columns written before COVID-19. Finally on dimension 5 it has been detected that the columns of opinion in Pakistani English newspapers are almost equally impersonal like the press reportage in general but less technical, formal and abstract than the political columns written before COVID-19.

However, this study has certain limitations. There is no study available on the columns of opinion in Pakistani English newspapers except the political columns therefore the results of this study have been compared with the results of the earlier study on Pakistani press reportage in general and political columns written before COVID-19. Also, the size of the corpus for this study is limited due to shortage of time and number of sampled newspapers. In future studies these limitations can be covered.

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