REGGER VARIATION IN PAKISTANI ENGLISH: A MULTIDIMENSIONAL APPROACH

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ABSTRACT: The present research is a multidimensional (MD) study which is a comprehensive methodology wherein an all-inclusive approach is opted towards the selection of linguistic features as variables from a wide range of registers. The variety, i.e. Pakistani English, on the whole has been analysed against textual dimensions of linguistic variation. The results indicate that Pakistani English bears as much register based linguistic variation as any other variety. Four of the linguistic dimensions identified in the present study are exclusively new and peculiar to Pakistani English. These textual dimensions indicate that most of the discourse deals with either involved or informational purposes (dimension 1), the speakers either bear objective or personal stance of evaluation (dimension 2), the topic of the discourse may be either past events or the present situations (dimension 3) and finally the discourse may be constrained with the real time production or it may be for the remote situations (dimension 4).

Keywords: Pakistani English, register variation, multidimensional analysis

INTRODUCTION

Recently, the researchers have shown an increased interest in exploring the features of Pakistani English in the areas of phonetics and phonology, syntax, semantics and lexis. Among them, most of the studies have been carried out in the field of syntax. However, the research on Pakistani English to date faces validity threats on these basis: firstly, previous research has focused on single linguistic features in either syntax or phonology; secondly, past researches have explored either single register of Pakistani English, or the register distinction has altogether been neglected [1,2]; further, none of the previous studies have tried to locate the syntactic features of spoken aspect except [3] where she has just focused on tag questions occurring in the spoken aspect of Pakistani English. The field has not examined sufficiently is the self-describing, self-explanatory picture of Pakistani English. The previous literature has not explained in what ways various registers of speech and writing, in Pakistani English, are different from each other based on sets of co-occurring linguistic features along different linguistic dimensions.

There is a need to explain the distinct variety in detail. This study would strive to examine the linguistic characteristics of Pakistani English on linguistic dimensions through multi-dimensional analysis which has successfully been applied on register variation [4, 5 & 6], dialectal variation between American and British English [5, 7] and inter-varietal comparisons previously [8]. The purpose of this study is to examine the various spoken and written registers of Pakistani English [9], included in ICE corpus of Pakistani English, through multidimensional analysis which would help to recognize the linguistic dimensions of variation in Pakistani English.

REVIEW OF LITERATURE

In Pakistan, register variation has recently been studied using MD analysis. The pioneering study carried out in Pakistan to explore the registers of Pakistani English as a non-native variety explored Pakistani print advertisements and collected a representative corpus of 1351 advertisements. On the basis of 88 MD analysis, his study disregarded the previous claims on print advertisements based on unrepresentative data and exploration of single linguistic entities. He explored that the past claim that print advertisements are closer to face to face conversations is not supported in case of Pakistani print advertisements rather it resembles the written discourse and have similarities with other promotional genres e.g. direct mail letters by fundraisers and nonprofit grant proposals. He explored new dimensions in his data using new factor analysis along New MD. The new dimensions which he has found are: directive vs. informational discourse, expression of organizational policy vs. other concerns, impersonal vs. audience centered style [4].

Another study, in the same vein, explored register of press news reportage in Pakistani English [6]. He has compiled the representative corpus of Pakistani press news reporting from the most circulating newspapers in five provinces of Pakistan. He has collected 400 texts from five newspapers that together made 2000 texts comprised of around 2.3 million words. He has explored that Pakistani press news reporting is different from British news reporting. Also, internal variation among sub categories of press news reporting has been highlighted. Another study has tried to locate the variation across academic writing of Pakistani university students using old and new MD. For this purpose she has built up corpus of 8.3 million words based on the research dissertations of M. Phil and Ph.D. graduates. Her major objective is to explore linguistic variation across disciplines (humanities, social sciences and sciences) as well as across research sections (e.g. introduction, literature review, methodology). She found that Pakistani academic writing conforms to the norms of British academic writing, however, the distinctive trends have been viewed in Pakistani English which could be taken as norms in this non-native variety [34].

The studies reviewed thus far have a similar methodological design i.e. exploration of some single registers of Pakistani English. However, the exploration of single register is never adequate for a comprehensive description of a variety because “the different kinds of texts, differ linguistically and functionally, so that analysis of anyone or two text varieties is not adequate for conclusions concerning a discourse domain. For example, considering only academic prose and fiction would not give an accurate representation of writing; rather, many varieties, such as newspaper reports, editorials, personal letters etc. also would need to be included” [10].

The above cited studies bear methodological inadequacy because they have explored single register and have made
intra register comparisons using multidimensional analysis and have presented the smaller picture. Another limitation is that these studies is that they explore only written registers of Pakistani English. The questions that have not been addressed so far are how far linguistic variation exists among the registers of Pakistani written and spoken English. The data in the current study addresses this question and takes up a wide variety of spoken and most common written registers of Pakistani English which are included in Pakistani component of International Corpus of English i.e. ICE-PK. For a comprehensive linguistic analysis of a register or languages variety, a wide range of linguistic features should be selected for analysis. The relative distribution of these linguistic features in quantitative terms is what highlights and spots the linguistic characterized of a specific register. As noted above, there is no single register which can aptly describe a language through exploration of single linguistic features. Thus, a wide range of linguistic features must be observed for a comprehensive description of a variety or language in a variety of registers and the representative samples texts from each register should be included. This is possible only through multidimensional analysis. The target of multidimensional approach is the “linguistic analysis of texts and text types, and of style or registers, rather than of individual linguistic constructions [11]. “

As the study aims to provide a comprehensive analysis of Pakistani English, it includes all the available registers of speech and most common in writing. The choice of ICE component is thus justified. Similarly, not a single or selected linguistic features an adequately describe language comprehensively, thus multidimensional approach has been chosen for the analysis.

**METHODOLOGY**

**Data Collection**

As mentioned earlier, International Corpus of English [12] has been chosen for the current study. The ICE corpora consist of twelve register (eight written and four spoken). The overall aim of this project is to collect a repository of representative written and spoken registers in the form of comparable corpora from different regions of the world. This set of corpora better represents the array of setting and function of the English used in the different countries of the world (following the New Englishes tradition the varieties and the ICE corpora have been named against the country they are being used in). This section describes the registers of ICE-PK and their process of compilation. The project was mainly undertook by Mahmood & Mahmood (2007). The researcher has also contributed mainly for the compilation of the said corpus as she has edited the major part of spoken component and collected the written component.

**Written Corpus**

The written corpus consists of eight registers, and has a total word count of 412108. Texts for most of the registers, including press reportage (W2C), instructional writing (W2D), popular writing (W2B), Persuasive writing (W2E), have been downloaded from internet. Student writing (W1A), Letters (W1B), Academic writing (W2A) and Creative writing (W2F) have been collected and were chosen only if they were composed by an adult and a degree of certainty could be ascertained. Once the texts were collected, the composer/author related information was deleted. In the following a brief description of registers and sub-registers which have been included in this corpus following ICE design has been provided. Total eight written registers are included in ICE design. The corpus on the whole comprises of 411117 words.

**Spoken Corpus**

The spoken corpus consists of four registers each consisting some sub-registers and has total word count 541446. This section throws light on each of the spoken registers along with their sub-registers. The major part of the initial compilation of the spoken corpus occurred in Pakistan during the years 2009-10 when spoken language in different context and setting was recorded and initially transcribed. The recording occurred in two ways – direct and distant. Direct recording followed with leaving a tape recorder on in a setting where there was language. The distant recording entailed the searching out of selected programs on internet (www.youtube.com; www.dailymotion.com; www.tune.pk) and the downloading the video and later to be transcribed it.

On the whole, the corpus included four spoken and eight written registers. The whole corpus consisted of 952563 words. The texts were saved following the ICE coding e.g. S1A-001, W2B-015 and the like. After saving the corpus, the initial processing started which is discussed in section 3.3.

**Data Analysis**

This section discusses the methodological steps to answer the research question put forth in the introduction section, to observe the linguistic difference in Pakistani registers along dimensions of variation obtained through multidimensional.

**Step i. Tagging**

The first step involved tagging of the whole corpus. In this procedure, the files were run through *Biber’s tagger*, at Northern Arizona University, USA.1 It is a computer program which assigns grammatical as well as semantic categories to each word in the corpus. The tagged files were then used for further analyses.

**Step ii. Obtaining the raw counts**

Along with the tagged corpus, an excel sheet which contains normalized frequencies of every tag in every file was also received from Biber’s Lab. The mean scores vary largely from 110 to 0.17. The feature that occur most frequently is preposition (110 per 1000 words) and the features that occurred least frequently is attitudinal adverbial (0.17 per 1000 words). The varying frequencies of linguistic features were also indicated the over the corpus e.g. present tense verb has maximum frequency in a text of 145 per 1000 words and the minimum frequency of 22 per 1000 words. These normalized values had then been entered into a factor analysis the results of which revealed the co-occurring patterns of linguistic features as dimensions which were then interpreted against their functions indicating various discourse domains.

**Step iii: Conducting Factor Analysis**

Factor analysis, the core of MD analysis, was then performed by the researcher which was counter-checked by

1 Special thanks to Dr. Jesse Egbert who conducted the required tagging.
a professional data analyst. Factor analysis is a multivariate statistical method which is used for data reduction. It brings inter-relevant variables (linguistic features in the context of this research) together under general underlying factors. This offers a vivid expression of data (Field, 2000; Rietveld & Van Hout, 1993). The factor analysis is applied on linguistic data tracking the idea that users shift from one set of co-occurring linguistic features to another as they shift from one register to another.

To extract factors from a data, [13], and it has been suggested that the factors with eigenvalues more than 1 should be included for analysis [14]. This method, however, resulted in many variables which was impossible to interpret. To meet this difficulty, the eigenvalues were then plotted on a scree plot (figure 1) to determine the number of factors to be included in analysis.

The factors occurring before the break point were kept and other factors with less significant values were then dropped. After extracting factors, factor rotation, (promax rotation) has been carried out which coerces each variables to load on as few factors as possible. The figure 2 shows that the factor 1 bears the largest proportion of variance as it found its place somewhere around eigenvalue 18 on the scree plot. It is also visible that only six variables bear the significant proportion of variance because after the sixth factor, somewhere around eigenvalue 3, the plot gradually flattens. The flattening of plot indicates the collapsing of factors. This lead to choose between the larger or smaller factors. Regarding this, Biber (2004b: p. 53) stated that “solutions with fewer factors resulted in a collapsing of linguistic features into single factors making the interpretation of those factors more difficult. Solutions with additional factors accounted for little additional variance, and those factors were represented by only a few features” [15]. The decision was then made to go for the first six factors; neither few nor more.

Thus the factors which have been determined out of co-occurring linguistic features are later given dimension names, taking into account the shared functions of linguistic features which co-occur to form a factor/dimension. The next step was exploratory analysis for which cut-off point was to be selected.

**Step iv: choice of cut-off point**

The significant loading (also called cut-off point) of a linguistic feature on a factor seems to be random in previous studies. Stevens (1992; cited in Field, 2000: p. 441) “recommends including only factor loadings having an absolute value greater than .40 (which explains around 16% of variance)” while Biber (1988, cited in Biber, 1995, 2004b) included features bearing the absolute value 0.35 or greater. The same cut-off point or significant loading has been chosen for the current study.

The exploratory analysis which was performed to find out the best number of factors for current study showed that the four factor model was best for the current study because factor 5 could only bear four linguistic features with significant loading which does not yield for a meaningful interpretation as it needs minimum five variables with significant loadings [16].

As mentioned earlier, the factor analysis provides reduced data in the form of sets of co-occurring linguistic features. Each set of co-occurring linguistic features is taken as dimension which has positive and negative features. This is to be made clear that “[n]egative is not an evaluative term; instead, it includes complementary distribution. This is to say, if a text has many positive features, it will have lesser number of negative features and vice versa” [17].

Some of the linguistic features bear salient loadings for more than one factors. Here Biber (1988) guides to pick the features for the factor where it shows highest loading. “each linguistic feature is include in the factor score on which it has the highest loading (in terms of absolute magnitude), ignoring plus or minus sign” (p.93). It should also be noted that at least five variables are required to interpret a factor.

**Step v. Normalizing and Standardizing**

For the further process, the normalized frequencies were used. It is very important to normalize the data to keep away from any error which may occur due to the varying length of the texts. The raw counts have been normalized against 1000 words. This is:

\[
\text{Normalization} = \frac{\text{actual frequency}}{\text{total number of words in text}} \times 1000
\]

Normalizing against 1000 words is a standard set by Biber (1988) and the later studies following the similar model. The normalized frequencies were then standardized to the mean of 0.0 and a standard deviation of 1.0. This is how variables (linguistic features) got equal weight in the process of computing dimension scores.

\[
\text{Standardization} = \frac{\text{normalized score} - \text{mean score}}{\text{standard deviation}}
\]

**Step vi: Calculation of Dimension scores**

Dimension scores are necessary to obtain for comparisons between and among registers.

Dimension scores should not be interpreted in absolute terms; they are useful only for relative comparisons among texts and registers. The transformations do not alter the relative relations among registers or the strength of each dimension; their purpose is simply to facilitate comparisons across dimensions [18].

To calculate dimension scores of each text sum of standardized frequencies of features with negative loading subtracted from the sum of standardized frequencies of features with positive loading. The dimensions with no significant negative features may include only sum of positive features and the vice versa.

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2 a statistical term: an oblique factor solution which extracts correlated factors
RESULTS AND DISCUSSION

Interpretation of factor/dimension 1
Dimension 1 is the most powerful factor with 24 positive and 8 negative features (see table 4.9). Mental verbs3 co-occurring with private verbs which express private attitudes, thoughts or emotions in an explicit manner [19]. Present tense verbs, which are used to express the ideas of immediate relevance and/or situations [5], while co-occurring with second person pronouns, which indicate the shared knowledge [20], indicate the discourse is taking place in or about the immediate context which is shared by speaker/writer. To make it more explicit, Biber (1999) has noted that these features are more recurrent in speech rather than in writing. That omission is also a characteristic of oral discourse to maintain the maximum of ease while that clauses have been used to expand the idea [19]. First person pronouns are used when the speaker involves himself in the discourse [21]. In writing, however, first person pronouns either indicate the writer’s intention to reduce gap between writer and reader or it is used to make claims (ibid.). While being used in writing, first person pronouns also denote the assertion of authority and display ownership of the context [22, 23]. The co-occurrence of first and second person pronouns on a dimension indicates interactivity and personal involvement [17]. Another cluster of features is that clause controlled by factive verbs and wh-clause controlled by factive verb, wh-clause, pro-verb do, that clause controlled by likelihood verbs and the discourse particles. Schiffin (1994) regards discourse particles as necessary coherent devices in conversation which is regarded as monitor of information by Biber (1988). In writing, they may indicate the uncertainty and tentativeness [24]. Working together, the mental verbs, that clauses with likelihood verbs and factual verbs, factual adverbials and discourse particles denote personal stance in involved discourse [17].

The linguistic features occurring together until now may be taken as a set of features which is a straight indication of oral discourse. However, another set of features is yet to be interpreted: predicative adjectives, nominalization, conditional subordinating conjunction (whether/if clauses), necessity modals, possibility modals, predicative attitudinal adjectives and nominal pronouns. In the previous literature, these features tend to co-occur along with nominalization, adjectives and nouns [5] which is a straight signal of literate discourse with major purpose of informational focus. This is so because nominalizations are derived nouns and adjectives have been a strong source to increase informational complexity [19]. “Necessity modals are pronouncements that certain events will occur; necessity modals are pronouncements concerning the obligation or necessity of certain events, that they ‘should’ occur; possibility modals are pronouncement concerning the ability or possibility of certain events, that they ‘can’ or ‘might’ occur” [5]. They are a direct expression of uncertainty or lack of precision [17]. Thus, possibility and necessity modals occurring together here can be a significant indication of uncertainty in Pakistani culture.

Co-occurrence of these two sets of involved (which include first and second person pronouns, private verbs etc.) and informational features (which include nominalizations, adjectives etc.) indicate that the positive pole of first dimension deals with the involved, interactive uncertain discourse in non-native context of Pakistan. The topic of interaction, however, may differ, either scientific (indicated through nominalization) or every day (indicated through mental and private verbs). It can also be assumed that even interactive discourse is highly elaborated in the non-native context of Pakistan. The following example (1) presents the uncertain elaborated involvement in Pakistani English. Features with positive loading are in bold type face.

Example 1:

<$A$> so do you think [that] we should inform her about Anna’s birthday party?
<$B$> yeah <,> I am just confused about it <,> I really do’n’t know what to do
<$A$> I think [that] we should just invite her
<$B$> aaa she might be umm she might feel better after attending the party
<$A$> yeah you are right samia
<$B$> I hope we will be fine soon
<$A$> yeah I hope so <indig> inshallah </indig>
<$B$> <indig> inshallah </indig>
<$B$> samia don’t you think aam that most of our family problems and our daily life problems are associated when we are not able to communicate with other people
<$A$> yeah you are right zara <,> interaction between individuals is slowly diminishing as people turn to their technological devices instead of attempting new experiments according to natural sides
<$B$> but I don’t think this way <,> I think technology is making this world a global village and shortening the distance between the people
<$A$> yeah technology has brought us many advances <,> but in my opinion we are becoming socially deprived because of it don’t you think to expand socially you have to place yourself in a social environment and grow in your relationships aaa relationships with people
<$ICE-PK-S1A-002$> On the negative polarity, prepositions co-occur with common nouns and attributive adjectives. The frequent use of prepositional phrases is one of the features of academic writing which, of course, bears highly informational density [25]. The common nouns also mark informational density [19]. Both of these features co-occur with all the three types of passives. The passives stress on “the patience of verb, the entity acted upon, which is typically a non-animate referent and is often an abstract concept rather than a concrete referent” [5]. They are used to emphasize on something which is acted upon [16] and may be used to present the work of others [26] without mentioning them. The passive constructions may also be used for maintaining coherent discourse with respect to theme along with objectivity. The prime intention of using passive construction is to express abstract information in formal and non-personal style [5, 27]. Nouns modifying other nouns and attributive adjectives have been a strong source to increase informational complexity. The following

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3 Linguistic features italicized to distinguish from the running text.
example (2) expresses discourse bearing the negative features on dimension 1:

**Example 2:**

It is stated that the undersigned vide letter No.946/DD-1/PB-33 (BW) Dated 08-10-2013 (Copy attached) raised the issues regarding construction of outlets of Dijkot Dist [agentless passive]. The main purpose of said letter was to highlight, construction constraint regarding height of sump well (i.e. 8.25f maximum) and seeking advice from consultants (PIC) [agentless passive]. In reply Team leader vide his letter No. TL/B-P-33 (BW) /5305 Dated 10-10-2013 (copy attached) provided typical construction drawing, with maximum height of sump well fixing at 7.5 ft maximum.

<ICE-PK-W2D-004>

Thus considering the complementary distribution of features indicating interactive purposes with the features of informational purposes, the dimension may be taken in line with the previous literature indicating among ‘oral’ and ‘literate’ texts. However, on the basis of few differences the proposed title for this dimension is ‘uncertain interactive versus abstract informational discourse’.

It has been claimed in the previous literature that the Dimension 1, most of the times, distinguishes between ‘oral’ and ‘literate’ discourse which is a universal pattern of register variation in all languages. Which have developed a literacy tradition [19].

In many respects, there are similar patterns across languages. For example, multidimensional studies of register variation in Spanish, Korean, and Somali and English have all identified a first dimension with first dimension with similar linguistic features and similar differences among registers. In all four languages, this dimension identifies a fundamental opposition between ‘oral’ and ‘literate’ registers [19].

Most of the features on dimension 1 support earlier findings of universality of oral versus literate discourse domains and this dimension can be considered as distinguishing among interactive uncertain discourse and abstract informational discourse. The suggested label for this dimension is ‘uncertain interactive vs. abstract informational discourse’.

**Relations among Registers of Pakistani English along Dimension 1: Uncertain Interactive Versus Abstract Informational Discourse**

Registers have been compared along each dimension by computing the mean dimension scores for each register. The dimension 1 is characterized with the frequent use of mental and activity verbs, present tense, first and second person pronouns, factive verbs, that clause controlled by factive verbs, wh-clause controlled by factive verbs, predicative adjectives, nominalization, discourse particles, necessity and possibility modals and causative subordination together with the infrequent use of prepositions, common nouns, attributive adjectives, proper nouns, by passives, agentless passive and pre-modifying nouns and vice versa.

Figure 2 plots the mean dimension scores for each register along dimension 1. Face-to-face conversation (S1A) and Unscripted monologue have very high scores on this dimension, while instructional writing (W2D), Academic writing (W2A), press reportage (W2C), popular writing (W1B) and persuasive writing (W2E) have very low scores.

Letter (W1B), student writing (W1A), scripted (S2B) and unscripted monologues (S1B) have moderately low scores while creative writing has moderately high scores, as shown in the figure below.

As the figure depicts, most of the registers express the uniformity in registers in Pakistani English except the scripted monologue (S2B). The diversification is very much visible through the box plot. The table 1 presents the mean frequencies of the linguistic features which have expressed the involved discourse in Pakistani registers.

![Figure 2: Register variation in Pakistani English along Dimension 1: uncertain interactive versus abstract informational discourse](image)

**Table 1: mean scores of linguistic features indicating involved discourse**

<table>
<thead>
<tr>
<th>Features</th>
<th>S1A</th>
<th>S1B</th>
<th>S2A</th>
<th>S2B</th>
<th>W2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental verbs</td>
<td>31.1</td>
<td>25.8</td>
<td>16.2</td>
<td>15.4</td>
<td>21.3</td>
</tr>
<tr>
<td>Factive verbs9.3in</td>
<td>10.5</td>
<td>6.1</td>
<td>5.3</td>
<td>6.3</td>
<td></td>
</tr>
<tr>
<td>Other contexts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wh clause ctrl by</td>
<td>1.3</td>
<td>0.4</td>
<td>0.4</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td>Factive verb</td>
<td>1.2</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Wh-clauses</td>
<td>5.1</td>
<td>4.1</td>
<td>2.2</td>
<td>2.05</td>
<td>2.7</td>
</tr>
<tr>
<td>That clause</td>
<td>5.1</td>
<td>4.5</td>
<td>2.9</td>
<td>4.1</td>
<td>2.3</td>
</tr>
<tr>
<td>Controlled by</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factive verbs5.3</td>
<td>1.5</td>
<td>2.7</td>
<td>2.1</td>
<td>1.7</td>
<td>1.5</td>
</tr>
<tr>
<td>Discourse particles</td>
<td>2.3</td>
<td>0.5</td>
<td>1.06</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>Sub conj. conditional</td>
<td>3.3</td>
<td>1.9</td>
<td>2.06</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>Nominalization</td>
<td>38.3</td>
<td>27.9</td>
<td>0</td>
<td>0</td>
<td>28.4</td>
</tr>
<tr>
<td>Necessity modals</td>
<td>5.3</td>
<td>3.3</td>
<td>2.7</td>
<td>2.2</td>
<td>1.8</td>
</tr>
<tr>
<td>Possibility modals</td>
<td>6.7</td>
<td>4.7</td>
<td>7.9</td>
<td>4.6</td>
<td></td>
</tr>
</tbody>
</table>

As indicated by the table above, the spoken dialogues and creative writing have the highest positive scores on this dimension. The monologues however, have mediatory scores which is because of the low scores of mental verbs and nominalizations. The features indicating involvement are shown in example 1 from face to face conversation. Example 1 exhibits many of the linguistic features of texts having high scores on D1: a high level of personal involvement and interaction, shown by frequent use of I and you, present tense and the necessity modals as well as possibility modals. In addition to marked occurrences of the features shown in the example 1, it is characterized by the relative absence of the features with negative weight on dimension 1, few nouns, passives and pre-modifying nouns.
Thus this text is interpersonal rather than informational. In contrast, the abstract informational discourse can be observed in example 2 from instructional writing with a low dimensional score. It is highly informational and shows least concern for interpersonal function. This text shows a high use of prepositions, nouns and passives. This entails the packaging of information in a strict manner.

The text lacks verbs, first person pronoun, second person pronoun along with the frequent use of passive constructions (e.g. it is therefore requested...), nouns (e.g. purpose, djkot dist etc.) and adjectives (e.g. general, main etc.) and prepositions (e.g. of, to etc.). Further, most of the sentences have been written using passive constructions without by-phrase conveying that the animate agents have consciously been removed from the content. It can be validated with the use of the word undersigned which is the best possible remote reference to the animate subject. Further, the discourse is replete with the nouns and prepositions which are the chief bearers of information.

Other registers presenting information in abstract way include Academic writing (W2A) and press reportage (W2C). Other registers have moderate scores on this dimension having primary function to impart information rather than interaction.

Dimension 1 of Pakistani English is similar to dimension 1 of [5, 28 & 17] on the grounds that all these dimensions distinguish between oral and literate or interactive and informational discourse. However, the existence of some of the linguistic features only in Pakistani English indicates the use of the language against a specific non-native background.

Overall, this dimension has been interpreted as ‘uncertain interactive discourse vs. abstract informational discourse’ and the interpretation has aptly fit the relations among registers defined by this dimension. Spoken dialogues have high scores on this dimension which are interactive while all other registers have informational discourse presented in abstract way. Apart from the justification of the title of the dimension, it is further noted that this dimension is a strong distinguisher among the register of Pakistani English according to the purpose of their discourse.

**Interpretation of factor/dimension 2**

Dimension 2 consists of 14 positive and 10 negative features. The highest positive scores are gained by *place adverbs* which limits a discourse to some context. They typically indicate a form of expansion of ideas because they provide additional information in the texts, and are used as modifiers or adverbial attached in clauses [29]. The *place adverbs* co-occur with *amplifiers* which are used to show dependability, to indicate unanimity and to signal the certainty towards the proposed information [19]. The choice of *amplifiers* thus exhibit the speaker writer’s attitude towards the proposition. *Evaluative adjectives* denote the judgments of speaker/writer towards an object or proposition. A number of studies conducted on the academic writing have reported that *evaluative adjectives* were used to boost the importance of the cited research work [30, 31, 32 & 33]. The choice of *evaluative adjective* and *amplifiers* is, nonetheless, subjective to the speaker/writer thus indicates the stance of speaker/writer with heavy reliance on speaker/writer’s opinion. *Activity verbs* “denote actions and events that could be associated with choice” [29]. Further, the *factive verbs* occurring with the *third person pronoun* and *progressive verbs* indicate the context-focused stance about the events in progress while *contractions* denote short surface form indicating informal style. It shows the personal stance of the speaker/ writer. The example below (3) is a clear indication of personal stance maintained through the features of positive pole of dimension 2.

July-August
The positive scores of creative writing (W2F), private dialogue (S1A), unscripted monologue (S2A), public dialogue (S1B) and scripted monologue (S2B) in contrast with other registers indicate that the proposed interpretation of this dimension accurately describes the underlying function here. Example 4.26, (p. 184) illustrates the features of personal evaluation of text in the register with a high score on this dimension i.e. creative writing (W2F). The example is straight indication of personal stance on evaluation. The adverbs and adverbials show that the discourse is taking place against some perspective and environment with the personal involvement. In contrast to this type of discourse, example 3 shows the personal evaluative stance

The dichotomous variation can be accounted with the argument that while teaching writing in English in Pakistan, the teachers recommend the objective approach in writing. Thus, under the teaching influence, Pakistani users of English try to be objective in their approach, hence maintaining the objective stance. Furthermore, the nature of ‘content’ may vary from register to register. As mentioned earlier the negative scores are marked with abstract nouns, group nouns, cognitive nouns, process nouns and stance nouns. The table below presents the mean values of normalized scores of these nouns in registers with negative loadings.

<table>
<thead>
<tr>
<th>Features</th>
<th>W1A Process</th>
<th>W2A</th>
<th>W2B</th>
<th>W2C</th>
<th>W2E</th>
</tr>
</thead>
<tbody>
<tr>
<td>nouns</td>
<td>15.8</td>
<td>32.3</td>
<td>22.1</td>
<td>19.4</td>
<td>22.6</td>
</tr>
<tr>
<td>Abstract</td>
<td>31.1</td>
<td>2.3</td>
<td>1.5</td>
<td>1.7</td>
<td>2.4</td>
</tr>
<tr>
<td>nouns</td>
<td></td>
<td>1.7</td>
<td>6.1</td>
<td>3.5</td>
<td>2.7</td>
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<tr>
<td>Stance</td>
<td></td>
<td></td>
<td>5.3</td>
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<td>nouns</td>
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<td>Cognitiv</td>
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<td>e nouns</td>
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<td>Group</td>
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<td>nouns</td>
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</tbody>
</table>

As the table depicts, all the registers are abounding in abstract and process nouns in comparison with all other nouns. Among the registers, academic writing (W2A) is highly content based which has the highest frequency of all the nouns which is because the academic writing (W2A) is primarily a register to disseminate the information (see example 4.6 on p. 146).

Dimension 2 of Pakistani English is similar to dimension 5 [34]. She has conducted multidimensional analysis of
Pakistani academic writing wherein the writers maintain either personal or objective stance in their writing. The existence of this dimension in academic writing, in particular, and Pakistani English, in general, indicates the overall behaviour of Pakistani users of English i.e. they tend to evaluate the proposition, object or idea. Largely, it can be deduced that although the spoken registers and creative writing have been found to be using excessive personal stance. The less distributed variation in the scores of the registers, which have objective evaluative stance, alludes that these registers have developed a uniform trend in the evaluative stance. However, with respect to the spoken registers, it can be assumed that the larger data dispersion indicates the variety in personal stance as the texts may vary from one person to another. Further, the context, expressed through time and place adverbials, is not a major concern in Pakistani culture because it is rated among high context cultures along with other Asian countries where people do not refer to contexts frequently [35].

**Interpretation of factor/dimension 3**

The interpretation of factor 3 is relatively easier. It includes only six features with significant loadings on positive polarity. The highest score is achieved by communication verbs which report information that does not necessarily involve speech, “indicate the degree of certainty associated with the reported information” [29]. The co-occurrence of communication verbs, public verbs along with that clause controlled by communication verbs are used to report information or findings indirectly with elaboration [34]. The past and perfect aspect verbs denote actions which have been carried out in past [29]. To clauses controlled by speech act verbs are used to give indirect report of directives e.g. commands, requests [29]. The shared function of these six linguistic features suggests the label ‘reconstruction of past events’ for this dimension. The example below presents the reconstruction of past events in Pakistani English

**Example 5:**

President Musharuf held out afirm assurance to provide protection and an equal play in the field to foreign <unclear one word> and directed removal of any beaurocratic hurdle in the way of investment. He particularly noted the tremendous prospects and foreign companies interest in the development of tourism, infrastructural property development, information technology, housing an hotel industries… Speaking at presentation on alternate energy sources, President Musharuf directed earlier implementation of project for making use of wind and solar energy. <ICE-PK-S2B-002>

**Relations among Registers of Pakistani English along Dimension 3: reporting of past events**

The high scores on this dimension are marked with the frequent use of communicative verbs, public verbs, that clause controlled by communication verb, past tense perfect aspect verb, to clause controlled by speech act. The registers with low scores are marked with opposite linguistic features. Figure 4 shows the relations among genres with respect to dimension 3 ‘reporting of past events’. High scores of press reportage and creative writing indicate that the interpretation of this factor as ‘reporting past events’ is accurate. Press reporting in Pakistan is narrative in nature for capturing large readership who are mostly not highly educated [6]. Scripted monologue also got positive score, this register includes broadcast news, broadcast talk and non-broadcast talks where again the events happened in past are reported to public. Examples from the three registers are given below to demonstrate the marked features of this dimension i.e. reporting of past events.

**Example 6:** Welcoming the guest, president of the LCCI Aslam Shaikh, who gave the guest and the members of his entourage Sindhi caps and Ajraks, said that Pakistan imported jute and its accessories to the tune of $38 million. He said the volume of rice export from Pakistan to Bangladesh shrank to just $3 million in 2015. In 2014 it had been $10 million, he recalled. He said Larkana division was a major rice-growing belt and urged the high commissioner to purchase IRRI-6 variety of rice from this area. <ICE-PK-W2C-020>

**Example 7:**

My sister heard too, but she didn't see.' Then almost boastfully, he said, 'I saw it all, I saw the Jhelum disappear.'

He began, in a sawing movement, to rub his palm over his chest. ‘Our village was one of those typical villages of the Jhelum Valley. Mud houses, slate roofs. Dark hills, river below. A pukka government school. One mobile phone tower. That's about it.

<ICE-PK-W2F-001>

**Example 8:**

And we got back on the fundamental principles and resolution that feudal respect each other's freedom and professional responsibilities <O> clapping <O>

I was happy to be back. I was happy I was happy to be back or one fundamental reason my husband was a great father he got excellent care of my children and I was not there he waited for me. He was committed to his marriage. He did not divorce me and neither any form it appears to me that was enough for me as a collector of a Pakistani Muslim men.

<ICE-PK-S2B-016>

The texts above are characterized with the frequent use of past tense (e.g. was, did, gave, etc.), public verbs (e.g. said), and nouns (e.g. guest, president, husband etc.) which show the reporting of events which have happened in past. Further, it can be observed that this dimension is different from dimension 2 which distinguishes between narrative
and non-narrative discourse [5]. In Biber’s (1988) dimension 2 is marked with the co-occurrence of past tense, public verbs and communicative verbs along with the third person pronouns. However, in Pakistani discourse, third person pronoun does not contribute in the formation of this dimension. The reason that the third person pronoun is not major contributor in this dimension is expressed in the above examples (6, 7 & 8). Excerpt 6 is tinged with third person pronoun (i.e. he, his), 7 is marked with the third person pronoun as well as first person pronoun while 8 is again patent with first and third person pronouns.

In contrast, other registers got negative scores on this dimension. These do not include considerable use of past tense, communicative and private verbs. To sum up, it can be assumed that the narrative techniques have been used in Pakistani English while presenting the past event to anyone. The Pakistani masses recurrently refer to the past events which indicates that people of Pakistan rely more on their past rather than projecting the future or living in the present situation.

Dimension 3 of Pakistani English is similar to dimension 2 of Biber (1988), dimension 3 of Biber (2004), dimension 3 of Biber & Conrad (2009) because all these dimensions are marked with communication verbs, past and perfect aspect verbs thus indicating narrative discourse. However, Pakistani dimension 3 differs from other studies because it lacks any personal pronouns. Thus it may be assumed that Pakistani users of English have higher interest in reporting past events rather than projecting human referents.

**Interpretation of factor/dimension 4**

Factor 4 is stronger than factor 3 with 8 positive features. Stranded prepositions represent a mismatch between surface and underlying representations, since the relative pronoun and the preposition belong to the same phrase in underlying structure [19]. These forms as an example of spoken ‘errors’ due to the production constraints of speech, a production in real time situations [35]. The co-occurrence of stranded prepositions and coordinating conjunctions, which indicate the underlying function of different chunks of information to formulate a complex notion [29], indicates the discourse produced in real-time situations with less chances of editing and revision.

Wh-questions, indicating elements to be specific by the addressee, co-occur with coordinating adverbial conjuncts, which are used to develop and manage the conversational discourse. Working together, wh-question, adverbial conjuncts and wh-relative clauses on object position reflect the concern with exploration of information and the subsequent elaboration in its response. The demonstrative pronouns refer to the objects outside the texts or to a previous referent in the text itself. They are usually found in speech due to faster production and lack of editing [5]. The co-occurrence of demonstrative pronouns and attitudinal adverbs act as stance maker [29]. The contributing features on this dimension are bold type-faced in the example below.

**Example 9:**

<SA>: Alhamdulillah, fine.
<SB>: I like to play cricket from my childhood because I played cricket from my childhood I like cricket because I want to become a professional cricketer.
<SB>: Very good. I played also cricket but sometimes played cricket whether ummm but most of the time I played video games. It’s my passion and Insha-Allah I’ll try and continue.

The shared function of these linguistic features is concerned with the discourse produced in real-time constraints. Thus the suggested title may be ‘online discourse’.

**Relations among Registers of Pakistani English along Dimension 4: online discourse**

Register having high scores on this dimension are marked with final preposition, coordinating conjunctions, wh-questions, adverbial conjunctions, wh-relative clause, attitudinal adverbs and demonstrative pronouns. Figure 5 plots the mean scores of the registers with reference to dimension 4 of MD analysis. On the first impression, it can be deduced that the registers do not show high dispersion of data on this dimension as indicated the boxes and whiskers in the figure. The larger dispersion is visible in scripted monologue (S2B). This again hints that the sub-registers included in this register do not have uniform purpose and try to meet the different kinds of tenacities. The sub-registers may further be explored to have deeper look into the picture.

![Figure 5: Register variation in Pakistani English along Dimension 4: Online Discourse](image)

Creative writings (W2F) and the dialogues (i.e. private, S1A and public S1B) have by far the largest score on this dimension. The instructional writing, press reportage, academic writing have low scores on this dimension while unscripted and scripted monologues and popular writing have moderately low scores on this dimension. This dimension has been interpreted as distinguishing registers with real time discourse production i.e. online [5] discourse and the registers which are meant for remote respondents. Separation of creative writing (which includes dialogues) and dialogues from other registers supports this interpretation. The features of texts with high scores on this dimension have been shown in example 10 from creative writing.

**Example 10:**

'Tell me a story,’ said one of the birds.

'Of what shall I sing, my love?’ her mate replied. 'Of my own travels or of the world’s woes?’

'Sing to me of what you saw in the world today.’

July-August
I will tell you of the prince of a faraway country and of his bride who has been betrayed,' her mate said.  
So Anbara heard them tell of her stepsister’s perfidy, and learned that her husband's life and soul lay in the ruby that was stolen from his forehead.  
Then one bird, weeping, said to the other: 'Can the young man never be brought back to life?''  
And her mate replied: 'The prince lies within these marble walls. His garments are this green grass and his eyes these pools of blue water. His body is this cypress tree and his hair its green leaves.

Example 11:  
The additional work shall be [future time] carried out by the contractor on the same conditions in all respects on which he agreed [past event] to do the main work, and at the same rates are specified in the tender (bid schedule) of the main work.” “and “…… additional or substituted work includes any item of work, for which no rate is specified in this contract, then such items of work shall be [future time] carried out at the rates entered in the schedule of rates, which was [past event] in for at the time of acceptance of the contract, minus/plus the same percentage deduction or addition which the total tender amount of the schedule items in the bid schedule bears to the cost of these schedule items calculated at par with the schedule of rates, with reference to which the tender for the work was submitted by the contractor.

Example 11 shows that the actions will be taken in some other time. The discourse indicates that the writer is presenting the future projection (e.g. the additional work … shall be …) based on the past events (e.g. which he agreed…). On the whole, it indicates that the discourse is not produced in real time constraints. Dimension 4 of Pakistani English is similar to dimension 6 of Biber’s (1988) which deals with the online informational elaboration.  

On the whole, it can be assumed that this dimension discriminates between the discourse types which are online (e.g. private and public dialogue and creative writing) and the discourse which are not online. Most of the registers lean towards the remote discourse situations i.e. where the discourse is not meant for the immediate respondent. While the registers having real time constraints do not get high positive scores. The results of this dimension are somewhat related to the results of dimension 3. While dimension 3 deals with the topic of discourse this dimension deals with the situation of discourse. The results on the whole, indicate that the internal variation among registers is very much prominent until this dimension. The studies which have not incorporated the idea of register based variation in their data from Pakistani English are thus questionable.

REFERENCES  


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