

REGISTER VARIATION IN PAKISTANI WRITTEN ENGLISH: A MULTIDIMENSIONAL ANALYSIS

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Abstract

Pakistani English has its distinctive character as a non-native variety of English and it is used for various functions in the country. The present study is an effort to study these variant uses of Pakistani English by focusing on register variation of Pakistani Written English (PWE) using multidimensional (MD) approach (Biber, 1988). Earlier studies have focused on individual registers and specialized corpora of PWE but the present study has been conducted on a general-purpose corpus of PWE (2.1 million words) consisting of 29 registers. The register variation has been studied using Biber's 1988 model of MD analysis. To conduct MD analysis, the corpus was tagged using Biber tagger at Northern Arizona University, U.S.A. The register variation of PWE has been studied along five dimensions of Biber's 1988 model. It has been observed that PWE registers show great deal of variation in terms of their scores on different dimensions and do not form a consistent pattern of variation across all the dimensions. Most of PWE registers have been found informational on dimension 1, non-narrative on dimension 2, explicit on dimension 3, lack overt expression of persuasion on dimension 4 and present abstract informational discourse on dimension 5. It is interesting to note that registers having informational character on dimension 1 show explicit character on dimension 3 and registers having interactive character on dimension 1 show situation-dependent character on dimension 3. It can be concluded that PWE users make different linguistic choices for different linguistic situations.

Keywords: Pakistani English, Pakistani Written English, Register variation, MD analysis

Introduction

Where there is a language, there is variation; languages vary as naturally as do human beings. "Variation can be regarded as an intrinsic characteristic of language and is a problem relevant to all linguistic levels" (Neumann, 2014, p. 01). Language variation has given birth to various new varieties of English; most of these are non-native varieties and Pakistani English is one of these with its own characteristics and idiosyncrasies.

Biber (1995) defines register "as a cover term for any variety associated with particular situational contexts or purposes" (p.01). Therefore, the study of register variation focuses upon the variation related to the context of use only.

MD approach is a scientific way of studying register variation. It is a corpus-based approach that relies heavily on quantitative methods (statistical factor analysis). This approach is based on the notion that exploration and analysis of individual linguistic features is not a reliable parameter of register variation rather the "strong co-occurrence patterns of linguistic features mark underlying functional dimensions" (Biber, 1988, p.13). The sets of co-occurring linguistic features are termed as dimensions. The fundamental issue is to find out the sets of co-occurring linguistic features: "once the linguistic co-occurrence patterns are identified, the

resulting dimensions can be interpreted in functional terms” (Biber, 1988, p.16). Identification of patterns makes the job of the linguist easy because he can, then, elaborate the reasons behind their co-occurrence and can also throw light on the ‘functional and situational parameters’ systematically. In order to find out dimensions, the technique of factor analysis is used for the purpose of data reduction or to group a number of variables into as few as possible. Although the use of factor analysis determines the ‘underlying dimensions within a set of texts’ yet it is important to support this technique by proper theoretical approaches. This aspect of MD methodology is related to the identification of linguistic features to be figured out from the corpus in hand: “linguistic features that are potentially important indicators of variation within the domain must be identified in advance...” (Biber, 1988, p.65). To meet these requirements, Biber (1988) selected 67 linguistic features from 16 grammatical, lexical and syntactic categories based on the previous research in the area. Biber used computational tools to “tag the words in texts for various lexical, grammatical and syntactic categories; compile frequency counts of linguistic features within texts; and analyse the distribution of linguistic features within and across texts” (Biber, 1993, p. 333). Biber’s (1988) factor analysis yielded the following seven dimensions:

- (1) Involved vs. Informational Production: This dimension is related to two types of discourse i.e. ‘affective, interactional and generalized’ versus discourse having ‘high informational density’ (Biber, 1988, p. 107).
- (2) Narrative vs. Non-narrative Concerns: This dimension makes a distinction between ‘narrative discourse’ and ‘other types of discourse’ (Biber, 1988, p. 109).
- (3) Explicit vs. Situation-Dependent Reference: This dimension distinguishes ‘highly explicit, context-independent reference’ from ‘nonspecific, situation-dependent reference’ (Biber, 1988, p. 110).
- (4) Overt Expression of Persuasion: Dimension 4 ‘marks the degree to which persuasion is marked overtly’ (Biber, 1988, p. 111).
- (5) Abstract vs. Non-abstract Information: This dimension distinguishes ‘abstract, technical and formal’ discourse from ‘other types of discourse’ (Biber, 1988, p. 113).
- (6) On-line Informational Elaboration: Dimension 6 makes a distinction between informational but ‘produced under real-time conditions’ discourse and other types of discourse (Biber, 1988, p. 114).

The seventh factor named ‘academic qualification or hedging’ by Biber (1988) was not taken into consideration and he invited further research for the affirmation or the denial of this dimension (p.114).

Within the dimensions, there are two types of values i.e. positive and negative. The positive and negative signs do not stand for good or bad, high or low features or relationships but they simply “represent sets of features that occur in a complementary pattern. That is, when the features in one group occur together frequently in a text, the features in the other group are markedly less frequent in that text, and vice versa” (Biber, 1993, p.335). The positive or negative values (factor loadings) are calculated for each individual linguistic feature within a dimension and these scores are added to reach an overall dimension score. “Loadings can run from -1.0 to +1.0; the further from 0.0 a loading is, the more one can generalize from the factor in question to the particular linguistic feature” (Biber, 1993, p. 335). The dimension underlying a factor is represented by features having higher loadings. “Each linguistic feature has some relation to each factor, and the strength of that relation is represented by factor loadings” (Biber 2009, p. 827). Linguistic features are functionally interpreted by using qualitative methods.

The present study has been conducted on 29 registers of a general-purpose corpus of PWE. The registers in the corpus have been taken from various fields of human interaction; the wide range of registers takes into account the variant use of English language in Pakistan. The present study is a comprehensive effort to study inter-register differences of Pakistani English. It will try to answer the following research question:

- How far do PWE registers vary among themselves according to Biber’s 1988 MD analysis?

Literature Review

The research on Pakistani English has a modest history of almost three decades; the earlier researchers on Pakistani English focused mainly on lexical innovation (Baumgardner, 1987, 1993), distinctive features of Pakistani English (Rahman, 1990), syntactic features of Pakistani English (Rahman, 1991; Chaudhry, 1995; Mahboob, 2004; Talaat, 2002; Y. Kachru and Nelson, 2006), phonological features of Pakistani English (Chaudhry, 1995; Mahboob and Ahmar, 2004), spelling differences (Hassan 2000) etc. Most of these studies can be regarded as unscientific because they were mainly based on the researcher's intuition and hand-picked examples.

With the advent of Corpus linguistics in Pakistan, the research on Pakistani English shifted paradigm and acquired a scientific character. The researchers (Mahmood and Mahmood, 2009; Shakir, 2013 etc.) compiled corpora of Pakistani English and tried to explore the distinctive character of Pakistani English by using corpus methodology. The compilation of Pakistani English corpora engendered the scope for MD analyses of Pakistani English and many a study was conducted on Pakistani English using MD approach.

MD approach, for the first time in Pakistan, was applied by Shakir (2013) to analyse a corpus of 1351 Pakistani print advertisements. His results of 1988 MD analysis refute the earlier claims made by previous researchers that Pakistani advertisements are closer to face to face interactions and he asserts that Pakistani print advertisements are closer to written discourse.

Alvi et al. (2016a) have compared Pakistani Press Editorials (250 editorials from five leading Pakistani English newspapers) with British Press Editorials using MD (1988) approach. The researchers conclude that there are marked differences between the two varieties on dimensions 1,3,4 and 5. Alvi et al. (2016b) have explored linguistic variation of Pakistani editorials across gender in Pakistani print media by using MD analysis. The researchers have compiled a special-purpose corpus of 300 (150 each from male and female writers) editorials from the two leading Pakistani newspapers, *The Dawn* and *The News*. The researchers have compared male and female editorial features of Pakistani writers and they have also compared Pakistani male and female editorial writings with their British counterparts. The researchers conclude that variations have been found in internal and external comparisons. Ahmad and Mahmood (2015a) have compared Pakistani press reportage with British press reportage register through Biber's (1988) MD model. The researchers compiled a corpus of 1.1 million words of Pakistani News Corpus (PNC). The results of MD analysis show that there are no linguistic differences on dimensions 1, 4 and 5 but there are marked differences on dimensions 2 and 3. Pakistani press reportage has highly narrative character on dimension 2 as compared with British non-narrative press reportage. Pakistani press reportage reveals explicit character on dimension 3 whereas British press reportage is highly situation-dependent discourse.

In another study, Ahmad and Mahmood (2015b) have explored linguistic variation among eight sub-categories of press reportage in Pakistani print media using Biber's (1988) MD model. The results reveal that on dimensions 2,3, and 5, there are significant statistical differences among various sub-categories of Pakistani press reportage. Ahmad and Mahmood (2016) have also explored linguistic variation among newspapers in Pakistani print media. Using a corpus of Pakistani news consisting of 2.3 million words, the researchers have applied New MD approach (Biber, 2003) to explore the new textual dimensions of Pakistani press reportage. Ali and Shakir (2016) have explored the stylistic variation among the sub-genres of Pakistani fiction (59 Pakistani English novels and 182 Pakistani English short stories) by using MD approach. The results of 1988 MD analysis show that there are significant stylistic differences among sub-categories of Pakistani English fiction on dimensions 1 and 3 whereas the other three dimensions do not reveal such differences. Azher and Mahmood (2017) have compared the linguistic properties of British and Pakistani English academic discourses using MD approach (Biber, 1988). The researchers have analysed a corpus of 8.38 million words from M.Phil. and Ph.D. dissertations from three major disciplines i.e. Sciences, Social Sciences and Humanities. The researchers conclude their findings by claiming: "both Pakistani and British academic writings are found to be informational, non-narrative, explicit, non-persuasive and impersonal" (p. 297). However, the differences are

found in terms of degrees to which both the varieties differ on five textual dimensions. Hussain et al. (2016) have studied the linguistic variation among various Pakistani English registers (8 written and 4 spoken) through New MD approach (Biber, 2003); the researchers have selected the written and spoken components of Pakistani constituent of International Corpus of English. The researchers have explored the new textual dimensions across various Pakistani spoken and written English registers. The researchers have identified four new textual dimensions; dimension 1 has been identified as ‘involved vs. informational purposes’, dimension 2 as ‘objective vs. personal stance of evaluation’, dimension 3 as ‘past events vs. present situation’ and dimension 4 as ‘discourse production constrained by real time production vs. discourse production for remote situations’.

Materials and Methods

The present study explores register variation of PWE by exploring a corpus 2.1 million words borrowed from Mahmood & Mahmood (2009). The corpus consists of 29 PWE registers. To conduct MD analysis, the data was tagged through Biber tagger at Northern Arizona University, U.S.A. (courtesy Professor Jesse Egbert). The tagged data provides three types of values:

- i. standardised (per 1000 words) frequencies of individual linguistic features (more than 150) across all the files (1396) of the corpus
- ii. detail of each dimension features
- iii. the dimension scores across all the files of the corpus

In order to apply Biber’s 1988 model, the researchers needed to find out dimension scores for all the registers; this was done by calculating the mean scores of all the dimensions for all the registers. The comparison among the registers was made on the bases of these mean dimension scores. The scores were functionally interpreted and were elaborated at micro level by discussing concrete examples from the PWE corpus.

Data Analysis

In the phase of data analysis, the register variation of PWE has been studied under two headings:

- i. linguistic features based variation
- ii. linguistic variation based on five dimensions

Linguistic Features based Variation

The tagged data provided information regarding the linguistic features belonging to five dimensions. The information has been reproduced in Table 1.

Table 1: Detail of Linguistic Features per Biber’s1988 Textual Dimensions

| Dimension Label | Dimension Name | Description |
|-----------------|------------------|---|
| dim_1 | 1988 Dimension 1 | features 1-21 (positive) and 22-24 (negative) |
| dim_2 | 1988 Dimension 2 | features 25-28 |
| dim_3 | 1988 Dimension 3 | features 29-33 (positive) 34-36 (negative) |
| dim_4 | 1988 Dimension 4 | features37-42 |
| dim_5 | 1988 Dimension 5 | features 43-47 |

Biber’s 1988 model studied 67 linguistic features but the number has been reduced to 47 by the tagger because the remaining 20 features had either insignificant values or belonged to dimension 6 and dimension 7; the tagged data provides scores only for the first five dimensions because the dimensions 6 and 7 were considered insignificant for the purpose of linguistic analysis. Table 2 provides descriptive statistics for these 47 linguistic features:

Table 2: Descriptive Statistics for the 47 Linguistic Features

| Sr. No. | Linguistic Feature | Mean | Minimum Value | Maximum Value | Range | Standard Deviation |
|---------|--------------------------------|--------|---------------|---------------|-------|--------------------|
| 1 | Private verbs | 7.16 | 0 | 62.5 | 62.5 | 5.05 |
| 2 | THAT deletions | 1 | 0 | 21 | 21 | 1.86 |
| 3 | Contractions | 1.25 | 0 | 33.6 | 33.6 | 3.59 |
| 4 | Present tense | 64.02 | 3.9 | 260.9 | 257 | 26.27 |
| 5 | Second-person pronouns | 3.46 | 0 | 162.5 | 162.5 | 9.99 |
| 6 | DO as pro-verb | 0.43 | 0 | 14.1 | 14.1 | 1.01 |
| 7 | Demonstrative pronouns | 2.69 | 0 | 98.2 | 98.2 | 4.61 |
| 8 | Emphatics | 2.26 | 0 | 35 | 35 | 2.64 |
| 9 | First-person pronouns | 12.48 | 0 | 112.7 | 112.7 | 17.31 |
| 10 | Pronoun IT | 10.87 | 0 | 61.9 | 61.9 | 6.98 |
| 11 | BE as main verb | 1.64 | 0 | 16 | 16 | 1.87 |
| 12 | Adv. subordinator- cause | 0.84 | 0 | 14.1 | 14.1 | 1.29 |
| 13 | Discourse particles | 0.36 | 0 | 9.5 | 9.5 | 0.84 |
| 14 | Indefinite pronoun | 2.09 | 0 | 50 | 50 | 2.58 |
| 15 | Hedges | 0.35 | 0 | 18 | 18 | 0.89 |
| 16 | Amplifiers | 1.94 | 0 | 14.1 | 14.1 | 2 |
| 17 | WH questions | 0.79 | 0 | 29.6 | 29.6 | 2.07 |
| 18 | Possibility modals | 4.68 | 0 | 24.6 | 24.6 | 3.5 |
| 19 | Non-phrasal coordination | 5.97 | 0 | 43.2 | 43.2 | 5.1 |
| 20 | WH clauses | 0.32 | 0 | 5.6 | 5.6 | 0.67 |
| 21 | Stranded prepositions | 0.78 | 0 | 10.9 | 10.9 | 1.2 |
| 22 | Nouns | 306.41 | 106.3 | 560.6 | 454.3 | 51.73 |
| 23 | Prepositions | 127.41 | 0 | 204.5 | 204.5 | 21.58 |
| 24 | Attributive adjectives | 58.99 | 0 | 163.6 | 163.6 | 20.49 |
| 25 | Past tense | 29.95 | 0 | 122.1 | 122.1 | 22.1 |
| 26 | Third person pronouns | 22.67 | 0 | 148.9 | 148.9 | 21.89 |
| 27 | Perfect aspect verbs | 8.86 | 0 | 39.6 | 39.6 | 5.45 |
| 28 | Public verbs | 4.18 | 0 | 39.2 | 39.2 | 4.68 |
| 29 | WH relatives: object positions | 0.86 | 0 | 9.2 | 9.2 | 1.11 |
| 30 | WH relatives: subj. position | 3.6 | 0 | 16.7 | 16.7 | 2.68 |
| 31 | WH relatives: pied pipes | 0.7 | 0 | 7 | 7 | 0.96 |
| 32 | Phrasal coordination | 3.81 | 0 | 23.1 | 23.1 | 2.91 |
| 33 | Nominalizations | 70.48 | 0 | 196.5 | 196.5 | 28.87 |
| 34 | Time adverbials | 3.64 | 0 | 21.7 | 21.7 | 3.01 |
| 35 | Place adverbials | 4.75 | 0 | 34.9 | 34.9 | 4.02 |
| 36 | Adverbs | 29.54 | 0 | 84.5 | 84.5 | 9.43 |
| 37 | Infinitives | 11.95 | 0 | 51.3 | 51.3 | 5.84 |
| 38 | Predictive modals | 5.78 | 0 | 57.5 | 57.5 | 6.3 |
| 39 | Suasive verbs | 1.52 | 0 | 16.6 | 16.6 | 1.9 |
| 40 | Adv. Sub. –condition | 1.9 | 0 | 23.8 | 23.8 | 2.36 |
| 41 | Necessity modals | 2.76 | 0 | 49.1 | 49.1 | 3.68 |
| 42 | Split auxiliaries | 3.46 | 0 | 17.1 | 17.1 | 2.5 |
| 43 | Conjuncts | 4.5 | 0 | 42.3 | 42.3 | 3.32 |
| 44 | Agentless passives | 11.36 | 0 | 107.1 | 107.1 | 7.17 |
| 45 | BY passives | 1.97 | 0 | 21.6 | 21.6 | 1.95 |
| 46 | Past part. WHIZ deletions | 2.73 | 0 | 28 | 28 | 2.42 |
| 47 | Adv. sub. –others | 4.09 | 0 | 26 | 26 | 2.91 |

The contents of Table 2 reveal that the mean scores display a great deal of variation for the minimum and maximum values i.e. the minimum mean value is 0.32 (WH clauses) and the maximum mean value is 306.41(nouns). The range (the difference between minimum and maximum values) of the mean values is 306.09; this much range difference reveals that the linguistic features have a great deal of variation in terms of frequency across the whole corpus. The mean of mean values of these linguistic features is 18.15 and the sum of all the mean values is 853.47. The minimum occurrence of a feature across any corpus file is 0 and the maximum occurrence is 560.6 (nouns). Out of 47 features, 45 features have nil values across different files of the corpus; only two linguistic features have been found not having nil values in any of the corpus files. These two features are ‘present verbs’ and ‘nouns’. The range for maximum values is 555 i.e. the lowest maximum value is 5.6 and the greatest maximum value is 560.6. The standard deviation values also show great deal of variance for the linguistic features. The lowest standard deviation for any linguistic feature is 0.67 and the highest standard deviation for any linguistic feature is 51.73 and the range for standard deviation across all 47 linguistic features is 51.06. The lowest standard deviation is displayed by WH clauses and the highest is displayed by nouns. The descriptive statistics indicate that the linguistic features show great deal of variation across the corpus and it is expected that this variation will be reflected in register variation of PWE.

Linguistic Variation on five Dimensions

Biber’s five textual dimensions overall can be considered as measure of variation among the texts. The mean scores of all the registers on one dimension can be compared to point out the variation on that dimension among the registers. Table 3 provides the mean dimension scores for all PWE registers on all the dimensions:

Table 3: Mean Dimension Scores of Individual PWE Registers

| Sr. No. | Register | Dimension 1 | Dimension 2 | Dimension 3 | Dimension 4 | Dimension 5 |
|---------|----------------------|-------------|-------------|-------------|-------------|-------------|
| 1 | Appraisal Literature | -21.06 | -0.89 | 10.83 | -3.67 | 1.89 |
| 2 | Article | -12.83 | -1.38 | 6.04 | -1.29 | 3.48 |
| 3 | Books | -11.5 | -1.43 | 6.17 | -1.93 | 2.86 |
| 4 | Bulletin | -24.17 | -2.45 | 6.09 | 5.62 | 3.64 |
| 5 | Broachers | -24.01 | -3.52 | 6.04 | 2.71 | 3.46 |
| 6 | Columns | -13.34 | -1.52 | 6.03 | -0.65 | 3.05 |
| 7 | Constitution | -19.44 | -3.23 | 9.04 | 0.37 | 5.87 |
| 8 | Directives | -23.57 | 1.27 | 8.08 | -1.53 | 2.46 |
| 9 | Editorials | -14.19 | -0.89 | 7.11 | -0.01 | 3.51 |
| 10 | Fatawa | -0.3 | -2.02 | 2.76 | 4.05 | 3.94 |
| 11 | Interview | -1.7 | -1.72 | 4.13 | 0.77 | 2.05 |
| 12 | Legal Decisions | -19.43 | -1.04 | 9.06 | -1.35 | 9.48 |
| 13 | Letters | -12.27 | -1.91 | 5.78 | 0.06 | 1.53 |
| 14 | Monographs | -22.32 | -1.73 | 7.86 | -4.5 | 4.99 |
| 15 | Manifesto | -19.52 | -3.08 | 11.77 | 0.6 | 3.61 |
| 16 | Manual | -22.83 | -3.96 | 10.04 | -5.17 | -0.005 |
| 17 | News Letter | -22.8 | -2.31 | 6.18 | -1.33 | 3.45 |
| 18 | Novel | -4.81 | 2.36 | 2.89 | -1.72 | 2.85 |
| 19 | News | -22.6 | 1.11 | 6.02 | -1.41 | 2.51 |
| 20 | Official Letter | -18.48 | -0.21 | 5.94 | -0.98 | 4.31 |
| 21 | Policy | -17.86 | -2.46 | 6.46 | 1.33 | 4.3 |
| 22 | Press Release | -20.23 | 0.02 | 8.26 | -0.3 | 2.51 |
| 23 | Research Paper | -21.12 | -3.21 | 7.11 | -2.58 | 4.39 |
| 24 | Reports | -24.49 | -3.14 | 8.37 | -2.67 | 4.34 |
| 25 | Survey | -21.28 | -2.88 | 8.75 | -1.32 | 6.14 |
| 26 | Stories | 2.65 | 2.36 | -1.07 | -1.88 | 1.18 |
| 27 | Thesis | -14.5 | -1.29 | 6.26 | -2.86 | 3.73 |
| 28 | Translation | 3.42 | 4.13 | -0.98 | 0.32 | 2.92 |
| 29 | World Wide Web | -24.94 | -3.08 | 9.51 | -3.15 | 3.2 |

The contents of table 3 provide two types of information. Firstly, the table provides the names of PWE registers included in the corpus and secondly, the table provides the mean dimension scores across all the registers. The PWE registers will be compared on all the dimensions to present a complete picture of register variation.

Register Variation in PWE on Dimension 1

If we sort the mean dimension 1 scores from the greatest to the smallest values across all the registers, we can find at least four categories:

- i. Positive values (from 0 to 5)
- ii. Negative values (0 to -5)
- iii. High negative values (-5.1 to -15)
- iv. Very high negative values (-15.1 to -25)

The categories have been devised for ease of illustration because there is a great deal of variation among the register scores and it would not be fair to place these registers in just two categories of positive and negative scores. The categories devised for this dimension have only one slot for positive values because there are only two registers with positive values out of 29 PWE registers. These two registers 'translation' and 'stories' have been placed in the first category. Both the registers have very low positive scores; 'translation' register has 3.42 value and 'stories' register has 2.65 value. It would be interesting to analyse these two categories because 'stories' register normally has involved features but for 'translation' register it seems surprising. The examples from both the registers can well explain the situation across these registers (positive features have been emboldened).

Example 1 (Stories Register)

"Death **comes**", **she** said to **me**. "**It comes**, like the **only** moment of truth in **your** life and **you have** no way of fighting it, because **you know** that **your** time is up. **You accept it** because **you have** no choice." **This is** what Dadi told **me** on **her** death bed moments before **her** time **was** up. **She** went peacefully **almost** as if **she** had been waiting for **that** embrace of solace all **her** life. Before **I** closed **her** eyes, **I** saw them sparkle like they never had before. (Corpus File Number henceforth CFN5603)

The analysis of example 1 shows that positive features like present tense, first person pronouns, second person pronouns, hedges etc. occur frequently in the text and these are related to the interactional aspect of any text and in the case of stories it can be justified because most of the stories have dialogic form and the characters interact directly among themselves.

Example 2 (Translation Register)

'Paan-walla.'

'Yes sir'

'**Have you** change for a ten-rupee note?' 'No sir, but **I'll get it** for **you**.'

'And **what** if **you don't** come back?'

'If **you don't trust** me sir, **you can come** with **me**. Anyway, what **do you want** to buy?'

'Never **mind** . . . Here, **I** have found one anna. Now **give** me a good cigarette and **be off** with **you**.' (CFN 5693).

Example 2 displays almost the same linguistic features as displayed by example 1. It has been mentioned earlier that it is usual for stories to be interactive but in the case of translation it seems surprising. However, by analysing example 2 this situation can be clarified because the 'translation' register has mostly narrative texts (stories) and these texts have mostly been taken from Urdu short stories. The example 2 is an extract from the English translation of an Urdu short story (*Overcoat*) written by Ghulam Abbas.

In the second category of negative scores, there are three registers i.e. 'fatawa', 'interview' and 'novels'. These registers have scores ranging from -0.3 to -4.81. 'Fatawa' register has the lowest score (-0.3) whereas 'novels' register has the highest score (-4.81). An example each from these registers can illustrate the linguistic situation across these registers.

Example 3 (Fatawa Register)

We advise you to start eating **with the name of Allah**. It will stop **intrusion of Satan**. Divide your **stomach in three parts**; fill one **part with food**, second **part with water** and keep third **part of your stomach empty for gases**. Make it a **practice**. Within sometime **you** will be able to **control over** eating. (CFN 5263)

In the example 3, the negative features (in bold words) like nouns and prepositions occupy the major portion of the text to indicate that the informational aspect dominates the involved aspect in the text. However, it is noteworthy that every sentence contains second person pronouns that means that the text is interactional as well. The reason for the low negative score of 'fatawa' register can be traced by keeping the fact in mind that these are mostly interactions between the Islamic believers and scholars on religious topics and therefore the text has both interactional and informational features. The same is true of 'interview' register because it also has both interactional and informational features and its low negative score can be justified in the same pretext. However, it is interesting to find out that 'novels' register has higher negative score than 'fatawa' and 'interviews' registers. Example 4 has been taken from 'novels' register (negative linguistic features have been emboldened).

Example 4 (Novels Register)

The **men** were silent. When the **fierce eyes of one of them** met my **frightened gaze**, I froze; their **foreboding presence** made me feel as though they were going to play **an important role in my life**. An **uncertain future** flashed through my **mind** before I fainted. (CFN 5455)

In the example 4, there are three sentences; these three sentences have five attributive adjectives which mean that the text is rich in description because attributive adjectives are mostly used to provide nominal information. The presence of a number of attributive adjectives along with nouns and prepositions in the text justifies the higher negative score of this register than those of the other two registers in this category because it can be seen that example 3 has no attributive adjectives.

In the third category of high negative scores, there are six registers ('books', 'letters', 'article', 'columns', 'editorials', 'thesis') having scores from -11.5 to -14.5. Out of these six registers, the researchers will discuss one example to explain the high negative values of these registers on dimension 1. Example 5 has been taken from 'thesis' register (negative features have been emboldened).

Example 5 (Thesis Register)

Pakistan has paid dearly **for neglecting education**. **Our position in the comity of nations** has gone down. **Pakistan, after 50 years of its existence**, does not find itself **in an enviable position**. **Out of 175 countries of the world**, its **rating order in terms of human development profile** comes **to 139**. (CFN 5648)

The abundance of negative features in the text means that the text has high informational density and it lacks involvedness. The 'thesis' register is expected to display dense information because the researchers' major focus is on the provision of information.

In the fourth category of very high negative scores, there are 18 registers which means that more than sixty percent registers belong to this category. Table 4 presents the mean dimension 1 scores of these registers.

Table 4: Mean Dimension 1 Scores of Registers with Very High Negative Scores

| Serial No. | Register | Dimension 1 Mean Score |
|------------|----------------------|------------------------|
| 1 | Policy | -17.86 |
| 2 | Official Letter | -18.48 |
| 3 | Legal Decisions | -19.43 |
| 4 | Constitution | -19.44 |
| 5 | Manifesto | -19.52 |
| 6 | Press Release | -20.23 |
| 7 | Appraisal Literature | -21.06 |
| 8 | Research Paper | -21.12 |
| 9 | Survey | -21.28 |
| 10 | Monographs | -22.32 |
| 11 | News | -22.6 |
| 12 | News Letter | -22.8 |
| 13 | Manual | -22.83 |
| 14 | Directives | -23.57 |
| 15 | Broachers | -24.01 |
| 16 | Bulletin | -24.17 |
| 17 | Reports | -24.49 |
| 18 | World Wide Web | -24.94 |

The contents of table 4 show that the mean scores of registers having very high negative scores display a great range of variety. The scores range from -17.86 ('policy' register) to -24.94 ('world wide web' register). These very high negative scores marginalize the presence of positive features at the very outset and it can be expected that these registers have very few positive features. The obvious reason for the very high negative scores of these registers is their function they generally perform; the registers like 'news', 'bulletin', 'reports', 'manual' 'research paper' etc. are generally highly informational and rarely interactive. Examples from some of these registers can further interpret their informational functionality. We can discuss one example from these registers to illustrate the justification for their very high negative scores.

Example 6 (World Wide Web Register)

Ayub Khan lost at the negotiation table at Tashkent the war that was won by the **Pakistan army** supported by the **people of Pakistan** in 1965. This humiliation enraged the **people of Pakistan** against the dictator. **Mr. Zulfikar Ali Bhutto**, a patriot as he has always been, was left **with no choice** but to quit the **Ayub Government** on June 16, 1966. **Bhutto** was determined to bring down the **dictator** who had betrayed the **nation**. (CFN 5706)

The presence of the only two linguistic features (underlined demonstrative pronouns) in the text from the positive pole of the category indicates the high informational density of the text. The negative features (in bold words) are found frequently in the text.

The above discussion can be concluded by saying that PWE registers have highly informational character on dimension 1 and this can be attributed to the general nature of the registers included in the corpus.

Register Variation in PWE on Dimension 2

If we sort the mean dimension 2 scores from greatest to smallest values across all the registers, we can find only two categories:

- i. Positive values
- ii. Negative values

There are six PWE registers ('translation', 'novel', 'stories', 'directives', 'news', 'press release') that fall in the category of positive scores and these registers display a great deal of variation in their scores as the scores range from 0.02 ('press release') to 4.13 ('translation'). However, 'stories' register and 'novel' register have the same score (2.36) that can be justified by considering the almost similar nature of both the registers.

An example from 'translation' registers can further illustrate the narrative character of these registers (positive features are in bold).

Example 7 (Translation Register)

Jalal Khan **reached** the clinic just as the doctor **was** about to leave. **He** hurriedly **asked** the peon if the doctor **was** busy examining a patient. 'No... but....,' **stammered** the peon, as if **he did not want** Jalal to see the doctor. That's good. I would like to see **him** alone,' **said** Jalal. **He was carrying** a pistol. (CFN 5703)

The text in the example 7 informs that 'translation' register is narrative in character as there are many occurrences of the linguistic features (past tense verbs, third person pronouns) that contribute to the narrative aspect of the text. The frequent occurrences of these features render a moderate positive score to 'translation' register.

In the category of negative scores, there are 23 PWE registers that display a great deal of variation in their scores; the scores range from -0.21 ('official Letters') to -3.96 ('manual'). An example from 'manual' register (having the highest negative value on dimension 2) can further inform us about the non-narrative character of these registers.

Example 8 (Manual Register)

ATO coming on duty will make a joint check with the outgoing ATO of the control panel desk, mimic diagram, SCADA computer, alarm settings, valve positions and current operations and will acquaint himself thoroughly with the situation throughout the pipeline. (CFN 5444)

The example 8 shows the absence of narrative characteristics and the verbs in the text are mostly in passive voice, future tense and necessity modals. The lack of narrative features highlights the non-narrative character of the text as well because "when the features in one group occur together frequently in a text, the features in the other group are markedly less frequent in that text, and vice versa" (Biber, 1993, p. 335).

The study of PWE registers on dimension 2 can be concluded by claiming that most of PWE registers show non-narrative concerns on this dimension; this tendency of the registers can be justified by considering the very nature of these registers because most of the registers in PWE corpus are meant to provide information for readers such as 'manual', 'manifesto', 'thesis', 'research paper', 'news' etc. The focus on information marginalises the narrative features of a text and non-narrative concerns dominate.

Register Variation in PWE on Dimension 3

If we sort the mean dimension 3 scores from greatest to the smallest values across all the registers, we can find three categories:

- i. Positive values (0-5)
- ii. High positive values (5.1-15)
- iii. Negative values (0 - -5)

In the category of positive scores there are three registers; three registers are 'fatawa', 'novel' and 'interview' and their scores are 2.76, 2.89 and 4.13 respectively. An example from one of these registers can be helpful in the interpretation of these scores; example 9 has been taken from 'fatawa' register having the lowest positive score on this dimension (positive features have been emboldened).

Example 9 (Fatawa Register)

A Fardh is something **which is absolute and proven absolute with some reasoning. And one who omits and leaves it out** is committing sin and will have punishment in consequence. One **who denies it** is a Pagan - Unbeliever. (CFN 5263)

Text in example 9 shows that every sentence contains a WH relative clause for the purpose of elaboration and the example also shows the non-existence of any adverbs in the text; both these elements contribute to the positive score of 'fatawa' register on dimension 3. The very nature of the register also indicates its informational and explicit character because the text is in question-answer format and there are a few text-internal or external references.

In the category of high positive values, there are 24 PWE registers. Table 5 provides the mean dimension scores for these registers.

Table 5: PWE Registers with High Positive Scores on Dimension 3

| Sr. No. | Register | Dimension 3 Mean Score |
|---------|----------------------|------------------------|
| 1. | Manifesto | 11.77 |
| 2. | Appraisal Literature | 10.83 |
| 3. | Manual | 10.04 |
| 4. | World Wide Web | 9.51 |
| 5. | Legal Decisions | 9.06 |
| 6. | Constitution | 9.04 |
| 7. | Survey | 8.75 |
| 8. | Reports | 8.37 |
| 9. | Press Release | 8.26 |
| 10. | Directives | 8.08 |
| 11. | Monographs | 7.86 |
| 12. | Editorials | 7.11 |
| 13. | Research Paper | 7.11 |
| 14. | Policy | 6.46 |
| 15. | Thesis | 6.26 |
| 16. | News Letter | 6.18 |
| 17. | Books | 6.17 |
| 18. | Bulletin | 6.09 |
| 19. | Article | 6.04 |
| 20. | Broachers | 6.04 |
| 21. | Columns | 6.03 |
| 22. | News | 6.02 |
| 23. | Official Letter | 5.94 |
| 24. | Letters | 5.78 |

The contents of table5 show that there is a great deal of variation among scores on the positive cline of dimension 3; however, there are 9 registers that have scores within the range from 6 to 7. The lowest positive score on this dimension has been occupied by 'letters' register whereas the highest positive score has been occupied by 'manifesto' register. An example from these two registers will elaborate the explicit character of these registers. Example 10 has been taken from letters register (positive features have been emboldened).

Example 10 (Letters Register)

All citizens are equal according to the **Constitution** of **Pakistan** 1973 but there is deliberately **discrimination** in the curriculum with the students of Religious **Minorities** which is violation of **their fundamental rights**. (CFN 5359)

The text in example 10 comprises one sentence only but it can be seen from the number of bold words that the nominalizations and WH relative clause mark the explicit character of the text. The frequent nominalizations in a text also highlight the informational density of the text as well. The register-specific properties also contribute to the explicitness and informational character of the text because the 'letters' register comprises letters to editors of various newspapers, that is why; there are few text-internal or text-external references.

Example 11 (Manifesto Register)

Large majority of our people **who are poor and live in the rural areas** suffer the dual misery of economic **deprivation and exploitation** by the rural elite and local **bureaucracy**. Justice is both distant **and** capricious whereas the terror unleashed by the police and the patwari is immediate **and** arbitrary. PDA proposes to implement revolutionary changes **which devolve real state power to the local elected representatives**. (CFN 5441)

The text in Example 11 shows its elaborate character by displaying many explicitness features (in bold); the text richly displays frequent nominalizations, phrasal co-ordinations and WH relative clauses in subject and object positions. The ‘manifesto’ register is expected to be highly explicit, informational and argumentative because its basic purpose is to inform the masses about a political party’s aim, plans and policies.

The category of negative values has two registers namely ‘stories’ and ‘translation’. Both the registers have low negative scores; ‘stories’ register has -1.07 score and ‘translation’ register has -0.98 score. As it has already been pointed out in the discussion on register variation on dimension 1 that both these registers have similar character; that is why, both the registers have almost the same scores across all the dimensions. Example 12 has been taken from ‘translation’ register (negative features have been emboldened).

Example 12 (Translation Register)

He **quickly** took out his own pistol as a precautionary measure and swiftly followed Jalal into the clinic. The doctor was seated **just** inside the door and could **clearly** see anyone entering his clinic. He had finished examining all the patients on his list and was **now** busy putting his day’s earnings and some papers into his briefcase when he saw Jalal Khan **suddenly** barge into the room with a pistol in his hand. (CFN 5703)

In the example 12, adverbs of all types (time, place and manner) have been highlighted in order to indicate the situation-dependent discourse of these registers.

It can be concluded after the study of PWE registers on dimension 3 that all the Pakistani registers except for two have the explicit character. The explicitness can be related to general nature of these registers; most of the registers such as, ‘news’, ‘research paper’, ‘thesis’, ‘policy’, ‘manifesto’, ‘press release’, ‘letters to editor’ etc. are highly focused on provision of information to their readers in an explicit and non-narrative manner.

Register Variation in PWE on Dimension 4

The PWE registers on dimension 4 show maximum variation; on no other dimension the number of registers having positive and negative scores differs this much greatly as it does on dimension 4. Most of the registers on this dimension have moderate values; that is why, these registers can be categorized as:

- i. Positive values
- ii. Negative values

In the category of positive values, there are nine PWE registers; out of these nine, five registers have scores less than 1 and only four registers have substantial scores. Table 6 shows the mean values of PWE registers having positive scores on dimension 4.

Table 6: PWE Registers with Positive Scores on Dimension 4

| Sr. No. | Register | Mean Score on Dimension 4 |
|---------|--------------|---------------------------|
| 1. | Bulletin | 5.62 |
| 2. | Fatawa | 4.05 |
| 3. | Broachers | 2.71 |
| 4. | Policy | 1.33 |
| 5. | Interview | 0.77 |
| 6. | Manifesto | 0.6 |
| 7. | Constitution | 0.37 |
| 8. | Translation | 0.32 |
| 9. | Letters | 0.06 |

The registers having scores less than one can be considered as having low degree of overt expression of persuasion however four registers namely ‘policy’, ‘bulletin’, ‘fatawa’ and ‘broachers’ have moderate degree of persuasion. The examples from these registers can further illustrate the character of these registers. Example 13 has been taken from ‘policy’ register (positive features have been marked in bold).

Example 13 (Policy Register)

The District government **will** include the Zila Nazim and Naib Zila Nazim, the Zila Council, and the District administration. The Naib Zila Nazim **will** be the speaker of the Council and the Zila Nazim **will** not be its

member. The Zila Nazim **will** be the executive head of the district and the administration and the police **will** be responsible to him. (CFN 5523)

The text in example 13 has parallel structures and there is frequent appearance of just one linguistic feature to mark degree of overt expression of persuasion; in every clause, there is a necessity/prediction modal. The appearance of only one feature out of many justifies the low positive score of policy register on dimension 4.

Example 14 (Bulletin Register)

Data **will** be transferred to the Verification agency in 2 streams on weekly basis initially. Agency **will provide** the verification status within 8 days of receiving. For optimum results, agency **should** have two separate teams for each verification cycle. Verification agent **will** fill out the Form and deliver the pre-packed welcome letter to the customer; receiver **will** have **to sign** the verification form. (CFN 4921)

The example 14 has been taken from the ‘bulletin’ register that has the highest positive score on dimension 4. Most of the linguistic features belonging to dimension 4 appear in this text i.e. prediction modals, necessity modals, infinitives, suasive verbs. As compared with example 13, there are more linguistic features to mark the higher degree of overt expression of persuasion; these features also justify the high score of this register on dimension 4.

In the category of negative scores, there are 20 PWE registers. Table 7 presents the mean dimension scores of PWE registers having negative values on dimension 4.

Table 7: PWE Registers with Negative Scores on Dimension 4

| Sr. No. | Register | Mean Score on Dimension 4 |
|---------|----------------------|---------------------------|
| 1. | Editorials | -0.01 |
| 2. | Press Release | -0.3 |
| 3. | Columns | -0.65 |
| 4. | Official Letter | -0.98 |
| 5. | Article | -1.29 |
| 6. | Survey | -1.32 |
| 7. | News Letter | -1.33 |
| 8. | Legal Decisions | -1.35 |
| 9. | News | -1.41 |
| 10. | Directives | -1.53 |
| 11. | Novel | -1.72 |
| 12. | Stories | -1.88 |
| 13. | Books | -1.93 |
| 14. | Research Paper | -2.58 |
| 15. | Reports | -2.67 |
| 16. | Thesis | -2.86 |
| 17. | World Wide Web | -3.15 |
| 18. | Appraisal Literature | -3.67 |
| 19. | Monographs | -4.5 |
| 20. | Manual | -5.17 |

The contents of table 7 reveal that out of 20 registers having negative scores on dimension 4, there are 4 registers that have values less than 1. The highest value has been shown by the ‘manual’ register. An example from this register can illustrate the reasons for high negative score of this register on dimension 4.

Example 15 (Manual Register)

The demand for natural gas is by no means constant. The most rapid change is in the morning between 6:00 A.M. and 8:00 A.M. The peak hour is at approximately 7:00 P.M. at night the demand starts decreasing at approximately 10:00 P.M., with the minimum hour at approximately midnight. (CFN 5444)

The text in example 15 does not show any linguistic feature to mark the degree of overt expression of persuasion and is mainly focused upon the provision of information. To sum up the discussion on register variation on dimension 4, it can be concluded that some of PWE registers show overt expression of persuasion whereas the rest of the registers do not. The registers that tend to show overt expression of persuasion are mainly those written for a selected readership to either win their favours or to convince them. The ‘fatawa’ register is mainly written to convince the readers regarding religious matters; ‘interview’ register shows the efforts of the individuals to convince the readers; ‘policy’ register is written with a view to persuade general public regarding some official decision and ‘broachers’ register and ‘bulletin’ register are also written to persuade and convince public in favour of some product or some organization etc.

Register Variation in PWE on Dimension 5

If we sort the mean Dimension 5 scores from greatest to smallest values across all the registers, we can find three categories:

- i. Positive values (0-5)
- ii. High positive values (5.1-15)
- iii. Negative values (0 - -5)

In the category of positive values, there are 25 registers to indicate the general tendency of PWE registers on dimension 5. Table 8 presents the mean dimension 5 scores of the registers having positive scores.

Table 8: PWE Registers with Positive Scores on Dimension 5

| Sr. No. | Register | Mean Score on Dimension 5 |
|---------|----------------------|---------------------------|
| 1. | Monographs | 4.99 |
| 2. | Research Paper | 4.39 |
| 3. | Reports | 4.34 |
| 4. | Official Letter | 4.31 |
| 5. | Policy | 4.3 |
| 6. | Fatawa | 3.94 |
| 7. | Thesis | 3.73 |
| 8. | Bulletin | 3.64 |
| 9. | Manifesto | 3.61 |
| 10. | Editorials | 3.51 |
| 11. | Article | 3.48 |
| 12. | Broachers | 3.46 |
| 13. | News Letter | 3.45 |
| 14. | World Wide Web | 3.2 |
| 15. | Columns | 3.05 |
| 16. | Translation | 2.92 |
| 17. | Books | 2.86 |
| 18. | Novel | 2.85 |
| 19. | News | 2.51 |
| 20. | Press Release | 2.51 |
| 21. | Directives | 2.46 |
| 22. | Interview | 2.05 |
| 23. | Appraisal Literature | 1.89 |
| 24. | Letters | 1.53 |
| 25. | Stories | 1.18 |

The contents of Table 8 reveal that PWE registers show great deal of variation in terms of positive scores on dimension 5. There are 10 PWE registers that have scores ranging from 3 to 4 in this category that makes the 40% of the registers in this category. An example from these registers can elaborate the character of these registers. Example 16 has been taken from the ‘stories’ register having lowest positive score on dimension 5 (positive features are in bold).

Example 16 (Stories Register)

He **had been discovered** by accident under the snow that had piled four feet thick after the last storm. The plows had worked tirelessly, moving the snow away from the roads and streets onto the sides where it mounded on the sidewalks. On the sidewalk on the right a narrow path **has been cleared** and I walk on it, the snow on either side piled up almost as tall as me. (CFN 5601)

The text in example 16 shows the moderate use of agentless passive structures that indicates the abstract informational character of the text. The register-specific traits can be seen in the narrative structure of the text.

In the category of high positive scores, there are three PWE registers namely 'legal decisions', 'survey' and 'constitution' having the scores 9.48, 6.14, and 5.87 respectively. Example 17 has been taken from 'legal decisions' register to show its abstract informational character (positive features have been emboldened).

Example 17 (Legal Decisions Register)

The fundamental rights of 'equality before law' and 'equal protection of law' of the superseded Judges **have been violated** as they **have been ignored** and **superseded** without affording them an opportunity of **being heard**; The superseded Judges **have been disqualified** from elevation in future (CFN 5292)

There are many passive structures in example 17 that mark the abstract informational character of the text and justify the highest score of this register on dimension 5. The technical and professional discourse of legal decisions makes frequent use of agentless passives and by-passives.

In the category of negative scores, there is only one PWE register namely 'manual' having -0.005 score that can be overlooked.

It can be concluded from the above discussion that PWE registers on dimension 5 have abstract informational or impersonal character because most of these registers have been taken from professional and technical subjects like Law, Politics, Journalism and Academic Writing etc. that focus upon seriousness and objectivity of the discourse. That is why, these registers show abstract information as compared with other types of information.

Conclusion

The comparison of PWE registers on five dimensions shows a great deal of variation; the PWE registers do not form a consistent pattern of variation on five dimensions. It can be concluded from the above discussion that most of the PWE registers are informational on dimension 1, non-narrative on dimension 2, explicit on dimension 3, lack overt expression of persuasion on dimension 4 and tend to present abstract informational discourse on dimension 5. It is interesting to note that the registers having informational character on dimension 1 have explicit character on dimension 3 and registers having interactive character on dimension 1 have situation-dependent character on dimension 3.

The register variation of Pakistani English is reflective of diverse use of English language by the Pakistani users and it also highlights their variant linguistic choices for different linguistic situations. It can be concluded that the register variation in PWE is largely related to the nature of registers and the linguistic capabilities of the writers.

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