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I. All manuscripts in English should follow the following format:

The first page should contain title; author(s)'s name(s), affiliation, E-mail address; and abstract of 150-350 words, followed by three to five key words, main text, acknowledgment, endnotes, and references in subsequent pages. Key words should be given in italics.

II. Manuscripts in English should use the following style for headings and subheadings:

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2

The main heading should be written bold in font size 14. All other headings should be written bold in font size 12. DONOT underline any headings at all.

III. Tables, figures, and maps should have headings and be numbered consecutively and should be clearly presented. Notes and sources should be placed under each table and figure. Photo will be treated as figures.

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Use Letter size paper with Times New Roman writing style font size 12 for the main text with line spacing 1.5 and 10 for the abstract with 1.15line spacing. Left margin should be 3.5 but all other margins should be 2.5 mm. Tables and figures should not be split on two pages.

Other requirements

Give one paragraph introduction of all authors in five to seven sentences (for each author) describing their educational background and research achievements in a separate file. But do not use hyperlinks.

Plagiarism

Authors should submit similarity index along with the manuscripts of the papers. They are also required to submit an affidavit declaring that the material in the paper is their own and it has not already been published. Quotes should be properly acknowledged.

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1) Use APA style of referencing.

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Discourse styles of Pakistani Fiction in English: A Multidimensional Analysis

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Abstract

The present research uses multidimensional analysis to explore new discourse styles in Pakistani Fiction in English. 'Corpus Stylistics' approach with the help of corpora and computational techniques has helped in exploring the new discourse styles in Pakistani Fiction in English. Previous quantitative studies conducted on Pakistani Fiction in English in general have rarely studied the full set of core linguistic features. The present study is pioneering in nature and has compiled a large special purpose corpus of Pakistani Fiction in English corpus based on substantial collection of novels and short stories. Statistical factor analysis has been applied taking into account the full set of core lexico-grammatical features used in Pakistani Fictionalized writing. Drawing on the data from the large special purpose corpora of Pakistani Fiction in English, the present research identifies new discourse styles and labelled them as: 'Expression of Thought vs. descriptive discourse production', 'Context-oriented Discourse' ',Concrete Action discourse vs. Abstract Exposition', 'Narrative vs. Dialogic Discourse'.

Keywords: Pakistani Fiction in English, Discourse styles, textual dimensions, multidimensional analysis

1. Introduction

Creativity in literature has gone beyond monolingualism in conjunction with contact literatures. Contact literatures have emerged as a result of the diffusion of English in multilingual and multicultural non-native contexts across the globe. Pakistani literary texts, representative of powerful contact literatures, are contributions towards the invention of new form of literary creativity with its unique flavour of linguistic and cultural norms. Pakistani literary writings in English largely depend upon the remaking of English language to compensate for indigenous thoughts and sociocultural experiences. Pakistani fiction writers writing in English language seem to exhibit the same trend. Bilingual Pakistani fiction writers use certain linguistic and textual strategies that contribute to the acculturation of English, thereby, imparting the

uniqueness to nation's identity as well as to Pakistani fictionalized English variety. Fictionalized Pakistani English variety is dominated by the nativisation of its contexts, of ideas, of style and its culture.

The language of Pakistani Fiction in English has gained its strength over the years and it has become a key area for the researchers in Pakistan as well as abroad. Pakistani fiction in English is replete with innovative linguistic, textual and contextual extensions resulting in linguistic hybridity. These contextual extensions and strategies include the use of neologism, transliteration, code mixing, code switching, glossing and literal translations. As Pakistani fiction writers writing in English comfortably modify English language to their purpose, their writings seem to transmit the pragmatic, pluralistic, enlightened and its variant cultural norms into the living Pakistani English Language. Ahmad (2011) endorses the same notion:

In this era of internationalization and globalization, postcolonial Pakistani English writers cannot afford to refuse their woks for the wider global readership; hence they must capture and remold and re-modify English Language as an alternative trustworthy medium for inscribing distinctive linguistic and variant cultural norms in the creative Pakistani English writings (p. 43).

Regarding the individuality of Pakistani Fiction in English, Shamsie (1988) quotes Aamer Hussein's argument as "I claim, with fiction as my only instrument, the native's right to argue and discuss my history with my compatriots. I guess that makes me a Pakistani writer" (P-xxiv). Sidhwa (1993) remarks about the linguistic identity of Pakistani Fiction in English as:

And this useful language, rich also in literature, is no longer the monopoly of the British. We, the ex-colonised have subjugated the language, beaten it on its head and made it ours! Let the English chafe and fret, and fume, the fact remains that in adapting English to ours use, in hammering sometimes on its head, and in sometimes twisting its tail, we have given it a new shape, substance and dimension. (In Baumgardner 1993, p. 212).

Previous studies conducted on the style of Pakistani Fiction in English show their inability in presenting any framework which can be used for the comparison of styles

taking into account the wide range of linguistic features. These studies face validity concerns due to unrepresentative data, reliance on individual linguistic features and lack of internal and external comparisons. Biber's (1988) study regards multidimensional analysis as the most suitable alternative approach to investigating register/style variation which is corpus-based, quantitative, empirical and comparative in nature.

Biber (1988) investigated the linguistic variation across the sub-genres of British English Fiction by applying Multi-Dimensional Analysis. He has also introduced the idea of 'Co-occurrence' of linguistic features. Like Biber, many other linguists have shown their dissatisfaction with the register studies based upon individual linguistic features (e.g., Bernstein, 1970; Ervin-Tripp, 1972; Hymes, 1974; Halliday, 1985). The concept of co-occurrence of linguistic features, no doubt, was already identified by these linguists but Biber introduced this concept in his seminal 1988 study. The sets of co-occurring features in any text are recognized through statistical factor analysis. These sets of co-occurring features are interpreted either functionally or stylistically according to their shared communicative functions and named as textual dimensions.

The present study has investigated the discourse styles after applying new multidimensional analysis on Pakistani fiction in English drawing on the special purpose corpus of Pakistani fiction in English.

2. Literature Review

In the field of corpus stylistics, corpus-based and corpus- driven approaches have been found helpful in elucidating the claims based on literary criticism. Both of these approaches have been used in analyzing the language of Pakistani fiction in English, thereby, imparting the new insights and new interpretations to literary criticism. In this regard, Mahmood, A (2009) and Mahmood, R (2009) conducted variety based study on Pakistani Written English including various genres along with Pakistani English fiction. Based on the individual linguistic features, the studies conclude that Pakistani English is a separate variety with distinct linguistic features of its own. Later on, Mahmood and Perveen (2013), Mahmood and Batool (2013), Ali (2013), Zahoor (2014), Mahmood and Ahmed and Ali (2014) conducted studies on the language of Pakistani fiction in English. These studies were based on individual linguistic features

and its raw frequency counts without applying any suitable model for making comparison between British English Fiction and Pakistani English Fiction.

Watson (1994) examines the prose works of Australian Aboriginal writer Mudrooroo Nyoongah by using the methodological framework of Biber known as MD Analysis. A study by Baker and Eggington (1999) explores the literatures written in five Englishes: Indian, West African, British, Anglo American and Mexican American. The study uses MD analysis approach to identify differences across five varieties in American English. Egbert (2012) in his study entitled "Style in Nineteenth Century Fiction" states that "although it (MD analysis) was originally designed for comprehensive linguistic descriptions of register (e.g. Biber, 1988; 1995; 2006; Quaglio, 2009; Conrad & Biber, 2001; Conrad, 2009), MD analysis is equally applicable to stylistics research" (p. 169).

3. Research Methodology

The current study has used new multidimensional analysis to explore the new discourse styles in Pakistani Fiction in English. The present study has compiled data of Pakistani Fiction in English spanning over the years from 1940 to 2014. Since Pakistani English Fiction is not available online, the researcher took pains to make sure the availability of Pakistani English Fiction from different sources. After selecting 91 novels and 277 short stories required for the complete design of PFC, the data was converted from print data into word editable form using OCR which was a tiring process. Other available corpora of Pakistani Fiction in English were neither exhaustive nor representative but the present study deals with special purpose corpora of Pakistani fiction in English. Every care has been taken by the researcher to make the data more comprehensive and representative. Following are the key notes regarding the representativeness of the PFC.

- 1. Equal weightage has been given to both male and female authors.
- 2. Due weightage has been paid to the novels as well as short stories.
- 3. Both diaspora and indigenous writers have been made the part of the corpus.
- 4. Classical writers as well as young voices writing fiction in English have been incorporated into the corpus.
- 5. Entire corpus has been prepared keeping in view the ratio of sample and population. With respect to novels, almost entire population has been taken

leaving behind few texts that were not available. With respect to short stories, well acclaimed and renowned authors have been included in PFC.

6. In LOB and PWE, only the initial 2000 words were made the part of respective corpora and results were generalized for the whole texts. While the present study takes into account the complete texts of the authors to make the corpus more representative and to get reliable and valid results. Jesse Egbert, Andrea Nini, and Bethany Gray also endorsed the idea of taking complete texts of the novels and short stories to analyse the discourse patterns in the PELF.

The complete data of Pakistani Fiction in English was sent to Biber Corpus Laboratory USA and was tagged by using Biber's tagger. Normalization of raw counts is done in order to avoid any error due to varying lengths of the texts. The raw counts of linguistic features were computed out of 1000 words, a standard set by Biber (1988) study. Biber has given the formula to normalize the frequency of the raw counts i.e., actual frequency divided by total number of words in a text multiplied by 1000. The next step is standardization of normalized frequencies. The normalized frequencies were standardized to the mean of 0.0 and a standard deviation of 1.0. For standardization process, the individualized normalized score were subtracted from the mean normalized scores and the resulting score was divided by the standard deviation.

3.1 Factor Analysis

A large number of variables can be reduced to a smaller set of factors or dimensions by using a statistical procedure called Factor Analysis. A factor is made up of features that co-occur to represent overall shared variance among the linguistic variables. Linguistic variables that co-occur do not mean that they co-occur by mere chance, rather they indicate underlying dimensions that can be interpreted functionally or stylistically. The correlation matrix determines the patterns of co-occurrence among the linguistic features. The correlation can either be positive or negative. Co-occurrence of features with positive loading generate one type of discourse that would be opposite in nature with negative loading on one dimension. In other words, two sets of linguistic features with positive and negative loadings are in complementary distribution on one dimension which means if one feature with high loading is

present, the other may either be absent or it may be relatively infrequent and vice versa.

Conducting Factor analysis is only the part of new MD analysis. As far as the new MD analysis is concerned, it explores new textual dimensions based on new factor solution. Different studies have identified different textual dimensions based on new factor analysis. The new textual dimensions identified by Biber (2006) are: Dimension3 Procedural vs. Content-focused Discourse and Dimension4: Academic Stance. Shakir (2013) introduced new dimensions in Pakistani Print ads: D1: Directive vs. Informational discourse, D2: Expression of Organizational Policy Vs. Other Concerns, D3: Impersonal vs. Audience-centered style. Jesse (2012) identified three new dimensions regarding style in nineteen century fiction by developing FLAG corpus. The names of these dimensions are: Dimension 1: Thought Presentation vs. Description, Dimension 2: Abstract Exposition vs. Concrete Action, and Dimension 3: Dialogue vs. Narrative. Through new factor analysis of PFC, the present study has identified four new textual dimensions.

For the present study, Program R (R Development) was used to run the factor analysis for the present study. It was done using the R function 'fa' (factor analysis), with 'fm' (factoring method) set to 'pa' (principal axis). Following Biber's1988 study, rotation method (Promax) was used in order to see the minor correlations among the linguistic features. Variable can load either positively or negatively on more than one factor, so those variables were included which showed strongest loadings. A scree plot with eigenvalues was generated in order to determine the number of factors to be included for present study. Keeping in view the scree plot, six factor solution was chosen but factor fifth and sixth did not show strong co-occurrence patterns to generate any interpretable discourse so they were dropped along with their linguistic features. Resultantly, total four factors were selected for the present study and these factors were labelled according to their co-occurrence patterns of linguistic features. Features with positive loadings were separated from the negative features after determining the factors to which they belong.

As far as New MD analysis is concerned, it deals with 150+ linguistic features included not only those used by Biber's 1988 study but also had those new linguistic features later on added by Biber's tagger. After reviewing the descriptive statistics for

each linguistic feature, many features were eliminated because their frequencies were too low to be included in the new factor analysis. 108 linguistic features relevant to the present study were chosen for the new factor analysis. After running factor analysis, the loadings of the factors were noted in order to set a cut-off value. A cut-off value of +/- 0.40 was fixed in the present study due to heavy loadings of the linguistic features while Biber has set it at +/- 0.35 in his 1988 study. Few features were further dropped having cut-off value below than+/- 0.40. Finally, 82 linguistic features retained for the present study. Descriptive statistics of 82 linguistic features included in the new MD analysis have been attached in appendices section.

3.2 Calculating Dimensions Score

Dimension score of each text in the new MD analysis of PFC was calculated by subtracting the standardized scores of negative features from the sum of standardized scores of positive features. The dimensions having no negative features consist of only sum of positive scores of linguistic features. In this way, dimension score of each text new MD analysis of PFC was calculated.

4. Results of New Multidimensional Analysis in Pakistani Fiction in English.

The present section discusses the results of new MD analysis of Pakistani Fiction in English.

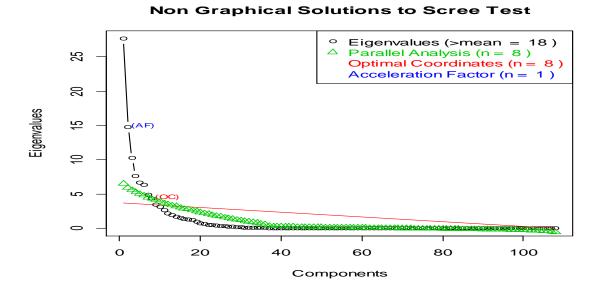


Fig4.2: Scree plot showing Eigen values of new factor analysis

4.2.1 Interpretation of Factors

The current section offers the interpretation of factors taking into account the matrix derived through new factor solution. According to new factor solution matrix, four new factors have been identified. Each dimension includes both positive and negative features and both positive and negative features on the same dimension point towards the complementary distribution of features i.e. if the texts have larger frequency of positive features, the negative features will be diminished and vice versa. Four sets of co-occurring were recognized and each dimension may include both positive and negative features. It is also a fact in MD studies that factor/dimension shows complementary distribution i.e. if the text has large frequency of positive features, the negative features will be decreased and vice versa.

Dimension 1: Expression of Thought vs. descriptive discourse production

Dimension 1 appears to be a powerful factor with 30 linguistic features: 24 positive and 6 negative linguistic features. As the new factor analysis included new linguistic features, so the functional interpretation of new co-occurring features seems to be significant one on this dimension.

Among all positive features on this factor, private verbs with loading of (0.80) seem to co-occur with That-deletion (0.08) and this co-occurrence seems to be quite expected pattern in fiction genre as both are used to express the thoughts and the feelings of the characters in Pakistani Fiction in English. Similarly, discourse particles with loading (0.50) appear to co-occur with conjunctions on subject positions with loading (0.48) and this co-occurrence indicates the continuation of discourse related to the feelings and thoughts of the characters.

That-complement clauses controlled by factual verbs with loading (0.84) seem to cooccur with To-clauses controlled by verb desire with loading of (0.88) and this cooccurrence appears to be very meaningful in conveying the personal feelings and emotions of the characters in fiction. Biber (1988) has also exclaimed the same fact that many subordination features "seem to mark the range of affective functions related to the elaboration of personal attitudes of feelings" (p. 107).

Likewise, That-complement clauses controlled by stance verbs with loading of (0.93) seem to co-occur with mental verbs with loading of (0.88) which also refer to the personal thoughts and attitudes of characters in Pakistani fiction in English. Similarly, modals of possibility (0.53) seem to co-occur with verb BE (0.42) and discourse particles (0.50) and this co-occurrence appears to highlight the emotionally charged language of characters in Pakistani Fiction in English.

Similarly, To-clauses controlled by all stance verbs with loading of (0.67) appear to co-occur with public verbs (0.71) and the simultaneous co-occurrence of wh-clauses with loading of (0.64) appear to be referring to the stance and thoughts of the characters in the fiction thereby pinpointing the personal and thought-oriented discourse in Pakistani Fiction in English.

The functional interpretation of positive linguistic features on this dimension corelates the 'Thought-Presentation' discourse style from Semino and Short's (2004) corpus stylistics framework. They discuss the Thought-Presentation as narrator's interference which makes the "reader feel close to character's thinking process (Semino and Short, 2004, p. 215). On the basis of positive linguistic features on this factor, this positive polarity can be labelled as "Expression of Thought". The following excerpt from PELF highlights the dense quantity of positive linguistic features indicating the Expression of Thought discourse in PELF:

"I **believe** in my work and in saving lives and serving my kind that way, that's my only mission; I don't **believe** in faith, or in a Creator. My father was an unbeliever and he brought me up that way. I'm amazed that an intellectual like you can **believe** in a first cause. I **think** it's just accidental collisions and a fusion of particles. You **know** what my dream is?" (Hussein, p. 32).

On the negative polarity, the functional interpretation seems to be quite obvious one. The presence of prepositions (-0.63), co-occur with word length (-0.56) hint at the informational and interpretive stance in the Pakistani Fiction in English. Attributive adjectives with loading of (-0.48) co-occur with nn-human (-0.53) and nn-place (-

0.47) thereby, indicating the elaborated and descriptive stance of Pakistani Fiction in English.

On the basis of positive and negative linguistic features on this factor, the present factor has been labelled as Expression of Thought vs. descriptive Discourse production in PELF. It is also a notable fact here that negative polarity on D1 of Pakistani Fiction in English Corpus has been found similar to Biber's D1 negative polarity and Egbert's (2012) of FLAG corpus.

Factor 1

Positive Loadings

1. Sum stance 'that' comp.clauses controlled by vbs

0.93

- 2. 'To' complement clauses controlled by verbs of desire, intention and decision 0.88
- 3. Sum stance 'that comp.clauses

0.88

4. Verbs—Mental

0.88

5. communication V in other contexts

0.87

6. All wh- words

0.85

7. Verbs—Communication

0.85

8. 'That' complement clause controlled by factive verb

0.84

9. factive verb in other contexts

0.80

10. private verb

0.80

11. "that" deletion

0.81

12. Wh- question

0.79

13. 'That' complement clause controlled by a communication verb

0.78

14. Public Verbs

0.71

15. Sum stance 'to' comp. Clauses controlled by vbs

0.67

16. Wh- Clause

0.64

17. 'WH' complement clause controlled by factive verb

0.62

18. Pro-verb "do" (substitutes entire clause)
0.60
19. Sum stance 'to' comp/. Clauses
0.60
20. Modals of possibility
0.53
21. Discourse particle
0.50
22. Subordinating conjunction – conditional
0.48
23. 'That' complement cl. controlled by verb of likelihood
0.47
24. Verb "be" (uninflected present tense, verb and auxiliary)

Negative Loadings:

Dimension 2: Context-oriented Discourse

Factor 2 is marked with 15 positive linguistic features and no linguistic feature appears on negative polarity in this factor. The functional interpretation of this factor seems to be quite apparent as most of adverbs are found in dense quantity on this factor.

Fact-adverbs with loading of (0.77) seem to co-occur with sum of That-clauses controlled by stance adverbs with loading of (0.76) and it appears to be quite meaningful as Biber (1988) makes it clear that adverbs "interprets the distribution of adverbs as marking situated, as opposed to abstract, textual content. Adverbs are used to hint at the context dependent, specific and situation-dependent reference" (p. 110).

Biber (1988) supports the fact that about the place adverbials: "They often mark direct reference to the physical context of the text, or in the case of fiction, to the text internal physical world. They also relate to the logical relations in a text and play a major function in its interpretation" (p. 224). Adverbs of place with loading of (0.74) contextualize the discourse based upon concrete action in Pakistani Fiction in English.

The co-occurrence of nominal pronouns with loading of (0.51) and Det-stance-nouns (0.50) and the presence of Demonstrative pronouns with loading of (0.47) also seem to be the more elaborated discourse being generated from certain context.

Place adverbs co-occur with sub-ordinate-conjunction with the loading of (0.72) along with the presence of adverbs/qualifiers, emphatics with the loading of (0.72) and this co-occurrence seems to stress upon the fact the discourse generated from certain non-native context of Pakistan. The bold words in the following example hint at the dense use of linguistic features referring to context-oriented discourse in Pakistani Fiction in English.

"If you do, you weren't **there**, that's how **much** it rocked. And come on, Aunties, splurge **a little** with the kitty. That's what it's there for. Well, aside from making money for The Heart Centre, of course. Let's not forget **all** those poor people who have eaten **too** many greasy **parathas** during their lifetimes and who have **never** heard of cholesterol reduction. Boring, boring, boring! For those in the mood for **a** little more spice, The Cancer Trust's **Arabian** Nights, with its imported Moroccan band Zazoon, was far **more** vibrant and alive. Most people **just** relocated. Zazoon, who had **never** been to **Pakistan** before, were **clearly a** little stunned by the way **Karachi** parties, **especially** when our favorite soap-manufacturing king, **Murtaza** Ali, made off with one of their belly dancers against her wishes in a drunken rampage. I'm not joking. **Physically** grabbed her off the stage and made a run for it". (Phillips, 2010, p. 7).

Factor 2

Positive Loadings:

1. All conjunctions 0.79

0.77

2. Subordinating Conjunction – Causative

3. Factive adverbs

0.77

4. Sum stance adverbs

0.76

5. Adverbial – conjuncts

0.72

6. Subordinating conjunction – Other

0.72

7. Adverb / Qualifier – Emphatic

0.72

8. Adverb (not including counts 8,15,16,34,35,49)

0.66

9. Pronoun "it"

0.58

10. Coordinating conjunction – clausal connector

0.53

11. Nominal pronoun

0.51

12. Det + stance noun

0.50

13. Nouns—Quantity

0.49

14. Demonstrative pronoun

0.47

15. epistemic adjectives in other contexts

0.40

Dimension 3: Concrete Action discourse vs. Abstract Exposition

Dimension 3 is marked with 23 linguistic features: 10 positive and 13 negative linguistic features. Among all positive linguistic features, concrete nouns with the loading of (0.69) co-occur with progress verbs which seem to be purposeful in the functional interpretation of this factor. In general, concrete nouns refer to things or entities that are capable of acting or being acted upon such people, objects and places, whereas; progress verbs with loading of (0.77) refer to ongoing dynamic action or activities. Their co-occurrence seems to refer to concrete actions ongoing in the Pakistani Fiction in English. Egbert (2012) also states the same fact that "the presence of progress verbs refers to the dynamic and ongoing state of action in fictional discourse" (p.176).

Similarly, Tpv with loading of (0.65) co-occur with Ipv with loading of (0.64) and this co-occurrence seems to refer to the continuation of action in the language of fiction. Contractions with loading of (0.61) co-occur with hedges (0.57) which also indicate the continuation of action as contraction carry more weight and convey the

oral and conversational touch to language of Pakistani Fiction. The bold words in the following example from PELF speak categorically of the Concrete action discourse.

"By **now** they must have started **eating**. And what am I **doing** but **standing** here with a giant turd in my fist? Not only that, my fingers seem to adhere to the turd; bits of my flesh are pulled away and my hand is **turning** brown. I must have eaten something unusual, because my nails and the palms are **turning** the colour of gravy. My love's radiant eyes, her **loving** softness. But in all ways she is a **demanding** girl. She insists on **trying** other drugs, And in the afternoons we play like children, **dressing** up and **inventing** characters" (Kureishi, p. 135).

On the negative polarity, the negative features indicate the fact that the real difference is not between explicit and implicit, rather the real difference exists between the amount of action vs. abstract exposition. In other words, use of Passives deemphasize the agent and transforms a description of action into an abstract statement of fact. Nominalizations with loading of (-0.54) co-occur with That-complement clauses (-0.52) which no doubt refer to explicit style of discourse but the presence of agentless passive verbs (-0.71) with the process nouns (-0.88) and all relative clauses with loading of (-0.43) depict the abstract style of discourse in PELF. The co-occurrence of Stance nouns with loading of (-0.40) with the adverbial-qualifiers (-0.53) along with the presence of predicative adjectives (-0.48) refer to more abstract style of discourse in Pakistani English language Fiction.

On the whole, the positive and negative linguistic features on D3 differentiate between concrete action and abstract style of discourse. On the basis of positive and negative linguistic features, this dimension may be labelled as Concrete Action discourse vs. Abstract Exposition. The bold words in the following example from PELF exhibit the abstract discourse style:

"The caricature of the pahalwan as a dying beast and the implied suggestion that in the eyes and minds of people the pahalwan's art and his world were doomed, were not lost on Ustad Ramzi. The wedge of antipathy that had slowly been driven between him and the world had left Ustad Ramzi unruffled; he had learnt to take in disparaging words without feeling outrage. Tamamien the akhara was allotted to Ustad Ramzi's ancestors; its five buildings were used as Living quarters by

pahalwans and their retainers. Only three buildings stood now, in varying stages of ruin. One **had been locked** up after its roof caved in." (Farooqi, 2012: 15).

A clear similarity can be drawn between D3 of Pakistani Fiction corpus and D2 of FLAG corpus explored by Egbert (2012) as FLAG's D2 was termed as Abstract Exposition vs. Concrete action.

Factor 3

Positive Loadings

- 1. Verb Present Progressive
 - 0.77
- 2. Adverbs-place 0.74
- 3. Stranded Preposition

0.70

4. Nouns—Concrete

0.69

5. Phrasal Verbs--Activity – Transitive

0.65

6. Phrasal Verbs--Activity - Intransitive

0.64

7. Contraction

0.61

8. Adverbial - Hedge

0.57

9. Verbs—Existence

0.51

10. Verbs—Activity

0.46

Negative Loadings:

- 1. Nouns—Process 0.88
- 2. Agentless passive verb 0.71
- 3. Passive all 0.70
- 4. Adverb / Qualifier Amplifier 0.53
- 5. Nominalizations 0.54
- 6. 'That'- complement clause controlled by verb 0.52
- 7. New stance nouns
 0.51

8. Predicative Adjective

0.48

9. Nouns—Cognitive

0.48

10. Adverb within auxiliary (splitting aux-verb)

0.46

11. stance noun + Prep P

0.44

12. All wh- relative clauses

0.43

13. stance nouns in other contexts

0.40

Dimension 4: Narrative vs. Dialogic Discourse

The functional interpretation on D4 seems quite obvious as the positive features are marked with an emphasis on the narration in the language of Pakistani English fiction. Past tense (0.80) co-occurs with perfect aspect verbs (0.76) and the presence of pro-3 (0.72) lays emphasis on the narrative discourse in PELF. Biber (1988) makes it clear: "Third personal pronouns co-occur frequently with past tense and perfect aspects forms, as a marker of narrative, reported style" (p. 225).

Likewise, the co-occurrence of coordinating conjunctions (0.62) with the wh-relative pronouns on the subject position with the loading of (0.57) highlights the continuation of narrative discourse in PELF. The bold words in the following example speak categorically of the dense narrative linguistic features in PELF:

"Hel eft her there, saying he would fetch drink. In the rain he went to the off-licence and was paying for the wine when he noticed through the window that a taxi had stopped at traffic lights. He ran out of the shop to hail the cab, but as he opened the door couldn't go through with it. He collected the wine and carried it back. He waited in her living room while she cooked, pacing and drinking" (Kureishi, p. 56).

Factor 4

Positive Loadings

Past Tense Verb

 0.80

 Verb – Perfect Aspect

 0.76

- 3. Coordinating conjunction phrasal connector 0.62
- 4. Wh pronoun relative clause subject position 0.57
- 5. Verbs—Aspectual 0.53
- 6. Verbs—Occurrence 0.49
- 7. mental/attitudinal verb in other contexts 0.45
- 8. Third person pronoun (except 'it') 0.72

9. Negative Loadings

- verb (uninflected present, imperative & third person)
 0.77
- 2. Second person pronouns 0.70
- 3. Verb 'have' 0.52
- 4. First person pronoun / possessive 0.76
- 5. Modal of prediction 0.46
- 6. Modal of necessity 0.47

On the negative polarity, the linguistic features have been found to be involved and interactive in nature. The co-occurrence of pro-1 (-0.76) with the present verb (-0.77) and the presence of the second person with the loading of (-0.70) makes clear about the discourse based on dialogue and oral features. The categorical presence of first person pronouns and second person pronouns refer to the involved and conversational discourse in Pakistani English language fiction. Modals of necessity with loading (-0.47) co-occur with modals of prediction (-0.46) and both features have been termed as the features which indicate the "reasoning and reliability in the interactive discourse" (p.241). On the basis of positive and negative linguistic features, this dimension can be labelled as "Narrative vs. Dialogic Discourse". The bold words in the following example highlight the dialogic discourse style in Pakistani English language fiction.

[&]quot;You've grown up," she says.

[&]quot;So have you."

```
"Do you still watch movies?"
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"I'm an addict. **I** go to sleep in front of the DVD player every night."

"Every night?"

She raises an eyebrow and smiles inscrutably. "Not every night. Often. When I'm alone."

"I live with my father. Well, he lives with me. But I have my own place now."

"Are you married?"

"No. Are you?"

She laughs. "No. I'm not sure I'm the type men marry."

"I'd marry you."

"You're adorable. Maybe I meant I'm not the type men

Should marry."

"Why not?"

"I change."

"Everybody changes."

"When I change, I let myself change." (Hamid, 2013, p. 86-87).

5. Conclusion

The present study has used MD analysis to identify the new Discourse styles in Pakistani Fiction in English. With the help of Corpus stylistics approach, the current study has justifiably explored the new discourse styles in Pakistani Fiction in English. After the application of new factor analysis on 92 novels and 227 short stories of Pakistani Fiction in English corpus, the resulting three dimensions were given the labels as: 'Expression of Thought vs. descriptive discourse production', 'Contextoriented Discourse', 'Concrete Action discourse vs. Abstract Exposition', 'Narrative vs. Dialogic Discourse'. Pakistani Fiction in English has been found to be exhibiting more tilt towards descriptive, abstract and Dialogic discourse production in nature which reflects the particular style of Pakistani writers in depicting non-native culture and indigenous norms of Pakistan.

[&]quot;Not that much. Sometimes."

Future researches are needed in the form of replication studies that use the same methodology but incorporate more linguistic variables of stylistic interest in Pakistani Fiction in English. The findings of the current study will be of a valuable help to researchers working in the area of Pakistani fiction in English with its unique discourse styles. Future researchers can analyze the linguistic variation among the sub-categories, leading novelists, leading short story writers on the discourses identified in the current study. The present study will be valuable to people working on linguistic variation within the texts of novels on the new Discourses identified in the current study.

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The Application of Minimalist Approach to Arabic Clauses with Reference to English

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Abstract

The minimalist approach is a binary one in which clauses are considered to be endocentric in the sense that they are organized around a central unit which is the head. The features of the head percolate to its projection which is the phrase. Thus, a head (V), for instance, heads the projection (VP) and a head (N) heads the projection of (NP) and so on. Every head enters into two local conditions: First the head is locally related to its complement and second the head is locally related to its specifier. Accordingly, clauses, within the minimalist approach, are organized in terms of binary branches (i.e., two branches only and never more). The aim of this study, thus, is to apply this binary branches analysis to different types of Arabic clauses with reference to English when it is necessary. That is references are made to English only to show the points of similarities and differences between the two languages under analysis.

Keywords: clause, merging, lowering, minimal and intermediate projections

1. Introduction

This paper is concerned with analysis of clauses based on the minimalist approach. It approaches the clause as a binary system regardless of the types of clause and the degree of complexity. A clause is essentially a subject usually a noun (which has the property indicated by the predicate), and a predicate (which is a group of words that assigns a property to the subject) (Carnie, 2002:147). The clause and its constituents are endocentric in the sense that they are organized around a central unit which is the head. The properties of a constituent are determined by the properties of its head, that is, the features of the head percolate to its projection which is the phrase (Haegeman

and Jacqueline, 1999:878-79). Accordingly, this paper sheds light on the possibility of applying the binary approach regardless of the word-order a language has. The main purpose of this study is to investigate the application of the approach to different types of Arabic clauses and to pinpoint areas of similarities and differences between English and Arabic clauses. The problem under investigation deals with the notion of universality as far as the minimalist approach is concerned. The possibility of applying the rules concerning minimal and maximal projections in different types of Arabic clauses is one of the concerns of this study. It is also centered on the possibility of applying these rules regardless of the degree of clause-complexity and clause-type. The application with modification or the non-application is the ultimate goal of this paper.

2. Chomsky's The Minimalist Program

The Minimalist Program is a program which Noam Chomsky developed based on his previous theories and ideas in terms of analyzing sentence structure. In this program Chomsky stated some rules that govern the sentence structure of any language and these rules are located in the child brain. Therefore, the MP's main function is to explain the grammaticality and ungrammaticality issues of sentences in all languages (Chomsky, 1995).

Merge, move and copy are syntactic operations; these operations are applied in order to produce syntactic objects. The syntactic operation Merge applies to form a syntactic object by combing lexical items. Merge is the basic structure-building which works in a binary operation to form a new syntactic object it contains the features of the originals by merging two syntactic objects. Move is the outcome of the combination of the two syntactic operations; Copy and Merge. Thus, the syntactic operation Move copies a constituent and then merges it with other constituents in the structure. All syntactic operations, products are syntactic objects. Then these syntactic objects interface the computational-intentional (C-1) systems to form the Logical Form (LF). However, when these objects interface articulatory perceptual systems, it forms the Phonetic Form (PF), (Adger, 2003; Jubilado, 2010).

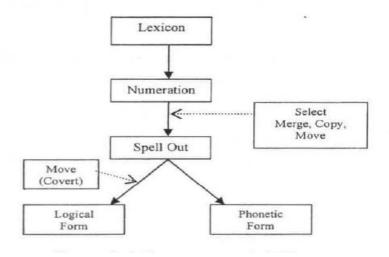


Figure 1: FL within the MP

In the MP, a clause structure is headed by TP the maximal projection of the clause. The head TP is derived from the binary-branching (1) Specifier (Spec) which is the subject and the external argument as well, and (2) Tense-Bar (T') which contains the syntactic objects tense (T) and the verb phrase (VP) which branches to verb (V) and noun phrase (NP) which is the clause object and the internal argument (complement) as well, as it is illustrated in the three diagram below in figure 2:

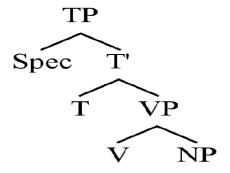


Figure 2: Clause Structure in the MP

X-bar theory is employed in the Minimalist Program in order to be able to describe the structure of phrases, clauses and sentences whatever the order of a language may have adopted SVO, VSO, or OVS. The X-bar theory correctly represents constituents smaller than XP, and bigger than X. It also distinguishes syntactically among complements, specifiers, and adjuncts. Moreover, it makes cross-categorical generalizations. Furthermore, it expresses the idea in that every phrase has a head 'X' and the other constituents project this head which reach the maximal projection in the XP (the

X-phrase). The XP consists of an intermediate phrase called X-Bar which dominates the head and the complement, and optional specifier YP which is the sister of X'. ZP is a phrasal which stands as the complement and is structured in a way presents a sisterhood relation towards the head X as illustrated in figure 3:

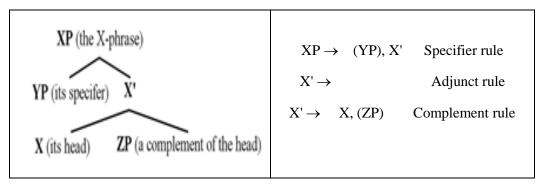


Figure 3: X-Bar Theory Structure

3. De Saussure (1916)

In de Saussure's (1916) theory, syntagmatic relation refers to a linear relation between constituents in speech or written form (*la parole*). That is, constituents such as words, phrases and clauses occur in linear chains, linking one constituent to the other. This idea of linkages together with the X'-Theory of Culicover (1997) will be used compositely and linearly to show the syntactic argument.

4. Data and Methodology

The data for this study are various types of sentences. The analysis has adopted a comparative methodology of the ST data with the TT data in syntagmatic term as propounded by de Saussure (1916). Chomsky (1995) the Minimalist Program (MP) is employed using X-Bar principles and processes

2 Data Analysis

2.1 Declaratives

Declaratives, in Arabic, are mainly of two types namely: the nominal and the verbal clauses. This is due to the fact that Arabic language allows a greater freedom in the

arrangement of its word order (Aziz, 1989). Each type will be explained in detail below.

The formulation of the clause whether nominal or verbal depends completely on the so-called 'merger' operation in which the tense (or the auxiliary) is merged with the verb phrase, then, merging the noun or the pronoun with the rest of the string. In other words, the inflectional projection (henceforth IP) is the head of the(x-bar) format, which is formed by first merging the auxiliary (I-bar) with the verb phrase (VP-bar=v,v). The outcome is an incomplete auxiliary expression (I=I-bar), thus the second merger operation is between the (I-bar) and the subject to form a complete clause. (Radford, 1997:64-65), (see also Chametzky, 2000:131-138)

2.1.1 Nominal Clauses

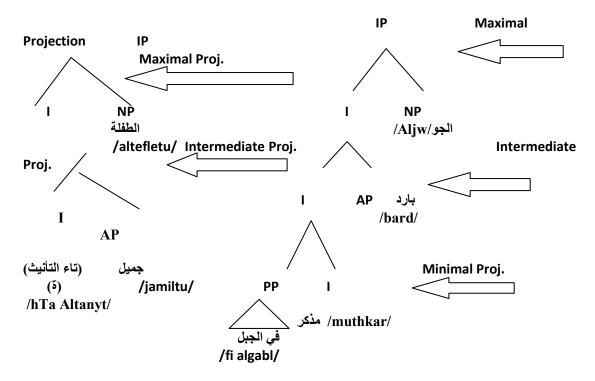
Nominal clauses have no verb by definition but only the subject and predicate. The subject is called "المبتدأ" (which is the inchoative), about which a beginning is made. The predicate is called "الخبر" (which is the incentive / announcement), and it can have the same grammatical forms of the subject since the nature of the nominal clause is formal equivalence between both members represented by simple juxtaposition (Jamal- Aldeen, 1980:248-250).

In the following examples, the subjects or (الجو) are (الطفلة) and (الجو), the predicates or (باردة), respectively. The nominal clause in (1) is dominated by the (NP and AP) resulting in two projections, namely, maximal projection and minimal projection, while the nominal clause in (2) has three projections which are: maximal, intermediate, and minimal projections.

1. /ALtefltu jmiltu/ الطفلة جميلة

2./ Aljw bardu fi algabel/الجو بارد في الحبل

These two projections are formulated by the merger operation of combining two categories together as phrases. Thus, the first example is formulated by merging the I – bar with the AP – bar to constitute the (I - bar), then, the (IP - bar) is formulated by merging (I - bar) with the (NP - bar). The second example is formulated in the same way i.e., the merger operation formulates (I - bar), the second merger operation results in (-bar), the last merger operation contributes the (IP - bar) or the whole clause. The representations of these examples are shown below.



The adjectival phrase in these examples varies depending on the choice of subject: with masculine singular subject: الجو بارداه الطفل جميل while with feminine singular subject in terms of gender. It also subject in terms of gender in terms of gender. It also agrees in terms of number as in (الأولاد أذكياء and الأولاد أذكياء (Aziz, 1989:293). The adjectival "agreement morphemes" head inflection shows that Arabic nominal clauses contain the category (I). This category dominates number and gender features. The adjectival I – bar selects AP – bar as its complement. The subject of these clauses (الجو الطفلة) and (الجو الطفلة) are the specifiers of IP – bars.

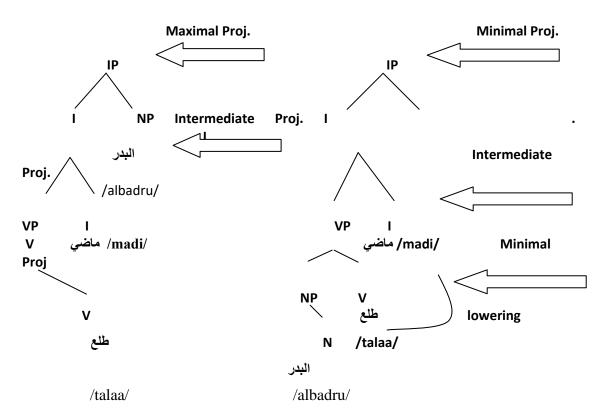
2.1.2 Verbal Clauses

Verbal clauses have been described as those which may or may not begin with a verb. A verbal clause, as its name indicates, may contain two elements: a nominal group as a subject which is called the doer or (الفاعل) and it expresses the temporal action or the condition (Jamal – Aldeen, 1980:252). Consider the following examples:

3./Albadru talaa/ البدر طلع

طلع البدر /4./Talaa albadru

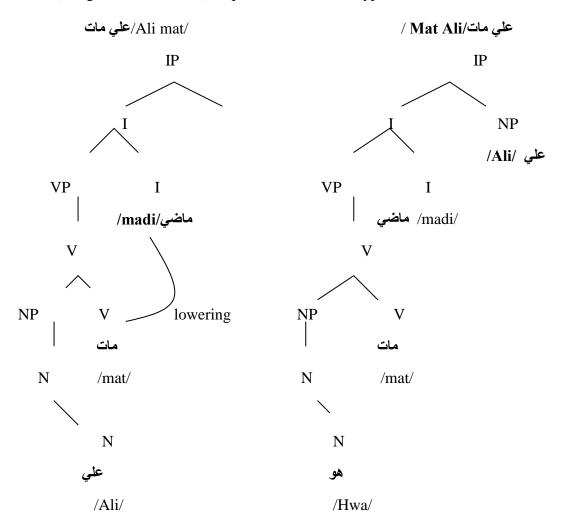
The verbal clause in (3) is formed by the same merger operation in which the doer and the predicate are linked or merged together to form the whole verbal clause. That is, the first operation includes the merging of the (VP – bar) with the (I – bar) which usually carries the tense in such a type of clauses formulating the (I – bar). The second operation includes the merging of the (I – bar) with the (NP – bar) to formulate the whole verbal clause. The verbal clause in (4), on the other hand, is formulated by the application of a special extra-transformational rule which is called 'affix lowering' (Carnie, 2002:194). In this rule the affix (الماضي) lowers on the verb to formulate a complete verbal phrase. The same merger operation repeated here as well to constitute the whole clause. Representations of verbal clauses are shown below.



In the first example, the merger operation results in two projections which are the maximal and the minimal. In the second example, however, the merger operation and

affix- lowering along with the NP- bar result in three projections: maximal, intermediate and minimal.

The normal word- order of Arabic clauses is usually (VSO or VOSA). Arab grammarians consider this normal word order being so essential to the verbal clause that when it is inverted in clauses such as: علي مات (Ali died), they view it as a nominal clause whose predicate is (مات) (died) which is at the same time a complete verbal group and Ali is the inchoative (الفاعل) not the doer (الفاعل) .A clause of this kind consisting of an inchoative and a complete verbal clause may be called compound clause since the agent is contained implicitly in the verb itself (علي مات هو). Other grammarians consider such a clause as one of two faces or aspects الوجهين) because it is as a whole and represents both the nature of verbal and nominal clauses (Wright, 1977:255-258). Representation of this type is shown below.



The clause which is initiated by a verbal group is formed by the merger operation and affix-lowering. The clause which is initiated by a nominal group is formed by three merger operation: In the first one the implied agent is merged with the verb صات (على مات هو) is merged with the I-bar (= tense) resulting in (على مات هو).

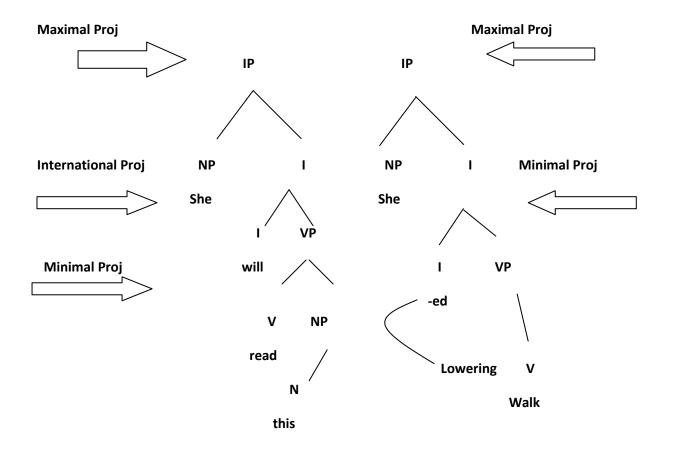
In English language, on the other hand, both inflectional suffixes and the auxiliaries are generated under the IP-bar or the IP-format. They differ, however, in terms of whether they can stand alone or not. Auxiliaries are independent words and can stand alone. By contrast, suffixes like (-s) and (-ed) have to be attached to a verb since they cannot be pronounced in isolation. Thus, they lower onto the verb (Carnie; 2002:150). Consider the following:

- 5. She will read this.
- 6. He walked.

The clause in (5) contains independent auxiliary (will) which can stand alone, thus, the whole clause is formed by the merger operation. The clause in (6) contains the suffix (-ed) which cannot stand alone and which has to lower onto the verb, thus, the whole clause is formed by affix-lowering and the merger operation. Representations of English clauses are shown below.

Accordingly, English inflectional suffixes such as (-ed) and (-s) are similar to Arabic verbal clauses (which are initiated by a verb) in the sense that these suffixes have to lower onto the verb.

It is significant to note that Arabic verbal clauses may be classified into two types, namely, simple and complex clauses. Each type will be discussed below.



2. Simple and Complex Clauses

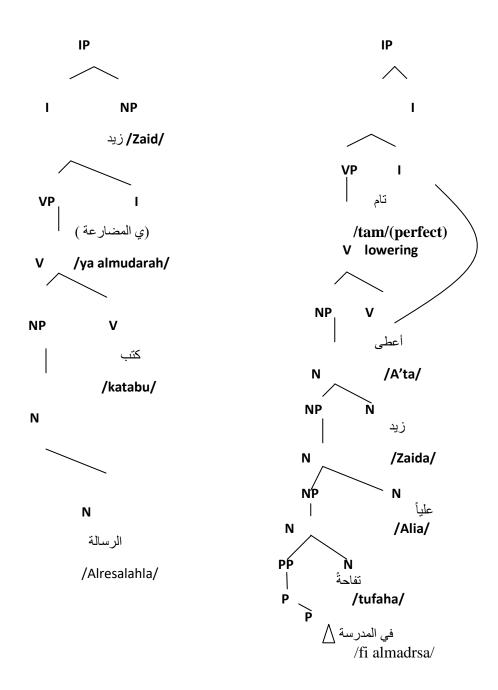
Simple and complex clauses are treated differently based on the type of projection that can be generated. The simple clauses are less difficult to be analyzed with one projection. The complex clauses are organized around more complex projection which mainly includes the CP projection as a prominent type of projection.

2.1 Simple Clauses

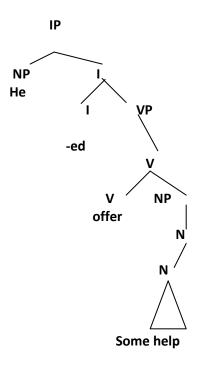
A simple clause is usually composed of the subject and the predicate (Halliday, 1985:64). The simple clause is dominated by the IP-format which is formulated by the merger operation. Consider the following:

- 5. /alresalaha uatabakya dZai / زيدُ يكتب الرسالة
- 6. /A'ta Zaida Alia Tufahta fi almadrasah/ أعطى زيدُ علياً تفاحةً في المدرسة

Simple clauses, as it is shown in the previous section, are formulated when the NP-bar is merged with the V-bar resulting in VP, then, the VP- bar is merged with I-bar resulting in I-bar. The final stop is when NP-bar is merged with I-bar to form the whole clause. The same merger operation is repeated in (5). Representations of these simple clauses are shown below.



Simple clauses, in English, are also headed by IP- format which is formulated by merger operation in addition to affix-lowering (when it is needed). Representation of English simple clauses is shown below.



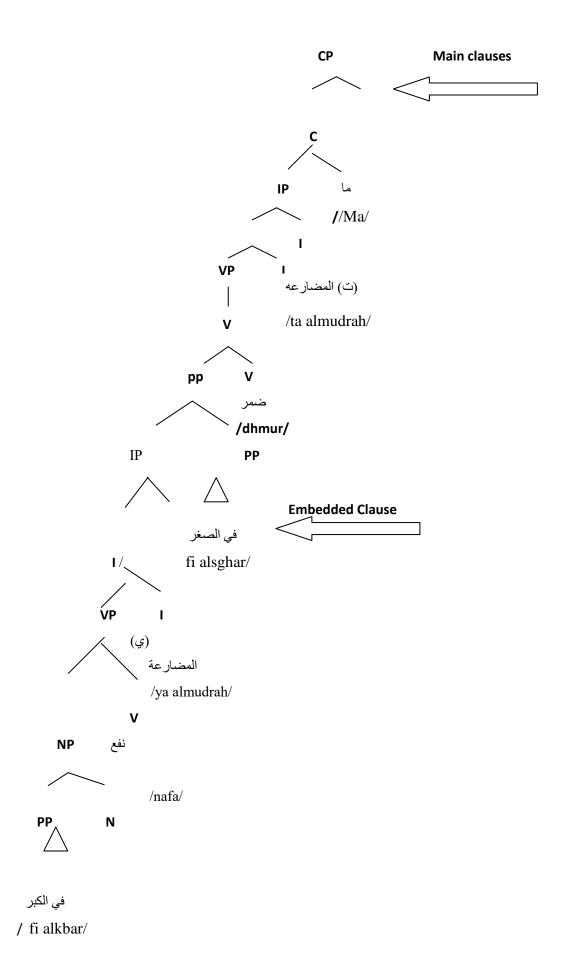
He offered some help.

2.2 Complex Clauses

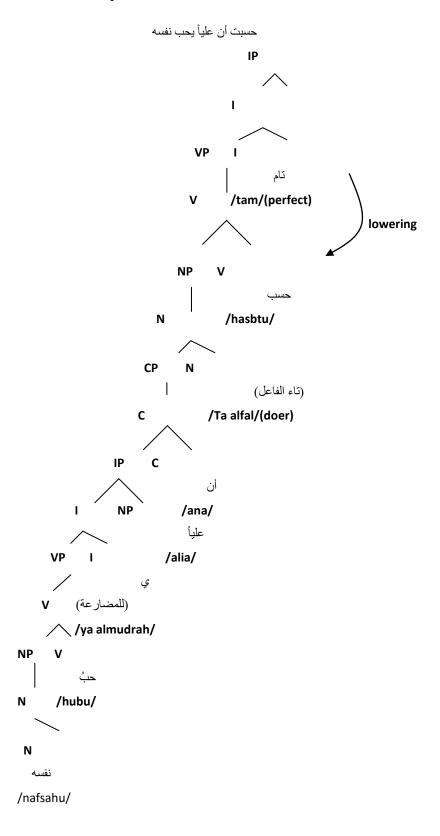
The complex clause is composed of two simple clauses which are linked together forming one complex clause (Halliday, 1985:64) This type is dominated by the complementizer projection (henceforth CP) which in turns dominates its specifier and its head. The complementizer selects IP and its complement. The CP is usually an embedded or subordinate clause which is a constituent of another clause (Haegemna Jacqueline, 1999:97)

- ما تضمر في الصغر ينفعك في الكبر /Ma tadhmur fi alsghar jnf'uk fi alkbar.
- 8. /Hasbtu ana Alia yuhibu nafsahu/حسبتُ أنَّ علياً يحبُّ نفسه

The complementizer (ما) in (7) is usually the head of the complementizer phrase with an empty specifier position. The complementizer initiates the whole clause and it is embedded in the main clause. The merger operation starts at the end of the embedded clause (يتضر في الصغر) till it reaches the main clause (يتفعك في الكبر). The last merger operation is completed when the whole clause is merged to its complementizer. Representation of this example is shown below.



The complementizer clause is sometimes embedded within the main clause. The whole clause is, then, dominated by IP rather than the CP as in (7) above. Representation of this example is shown below.

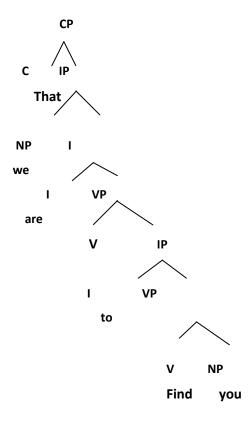


The comlementizer clause is embedded within the main clause which is, in turn, dominated by (أن). The merger operation starts by merging NP-bar (نفسه) with the V-bar (حب). This complex clause is made by merging successive pairs of categories to form various layers and more complex structures. The affix-lowering operation is needed as well.

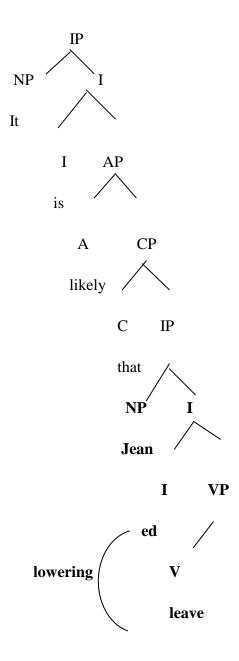
English complex clauses are also composed of two (or may be more) simple clauses which are joined or linked together. Consider the following:

- 9. That we are trying to help you.
- 10. It is likely that Jean left.

The clause in (9) is started with (That) holding the position of complementizer of the CP. The pronoun (we) occupies the specifier of the IP. The two verbal phrases (are trying) and (to help) are joined to make this complex structure. The important assumption that can be arrived at is that English complex clauses are formed by essentially the same successive merger operations mentioned above. The representation of this example is shown below.



The CP projection may be preceded by the IP projection when the complementizer occurs after the first clause. That is, the comlementizer is embedded within the main clause as in (10) below. The merger operation starts when the VP- bar (leave) is merged with the I- bar (-ed). This operation is repeated successively to form the whole clause. Besides, the affix- lowering is also needed .The representation of this example is shown below.



3. Interrogatives

Interrogative clauses are manipulated to give a response to a question. Asking a question, in Arabic, is evoked by the use of two types of interrogatives, namely, the polar interrogatives and the information interrogatives (Wright, 1977:306). Each type will be explained below.

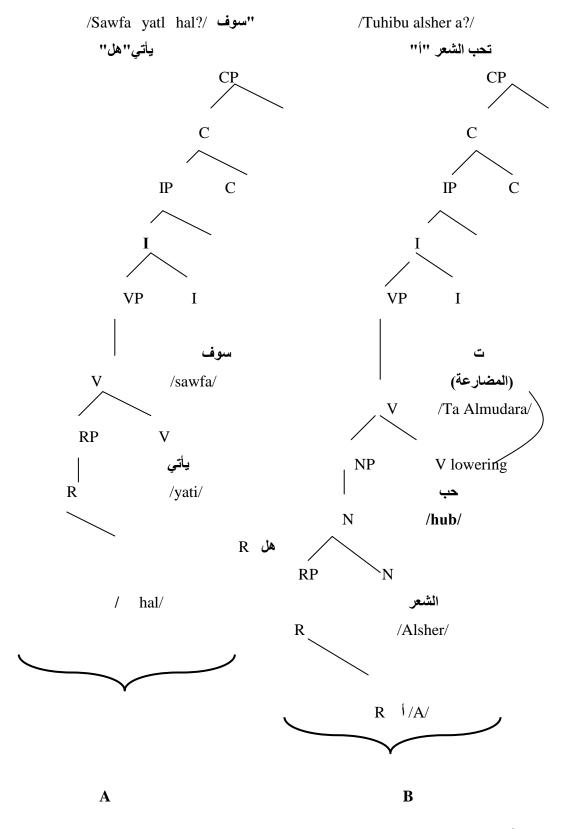
3.1 Polar-Interrogatives

This type of interrogatives is represented by mainly two particles: (اهل) and (أ), and substantively by the particles: ألاً ، لولا ، هلا ألا ، لولا ، هلا . This type of interrogatives is used to ask questions about the validity of the statement which in turn requires either a negative or a positive answer. The particle (أ) is considered the simplest interrogative particle, which may be prefixed to the word أن and to conjunctions such as: ف الله المنافعة (Wright, 1977:306) and (Beeston, 1970:102). Consider the following:

A statement is converted into polar interrogative by the initial particles (﴿) and (أ) which do not necessarily entail any other change in the clause structure (Beeton, 1970:102). In the process of making a polar question or interrogatives, the particles are inserted. "Insertion transformations" apply only in the case that there is nothing else you can do. They are, in essence, operations of 'last resort', that is, the application is made when no movement transformation can apply (Carnie, 2002:209).

It is significant to note here that these particles are originally generated at the end of each question, that is, they are deeply found at the end of each statement and are motivated and inserted when they are needed.(ibid:153-154).

The deep representations of the above examples are shown below.



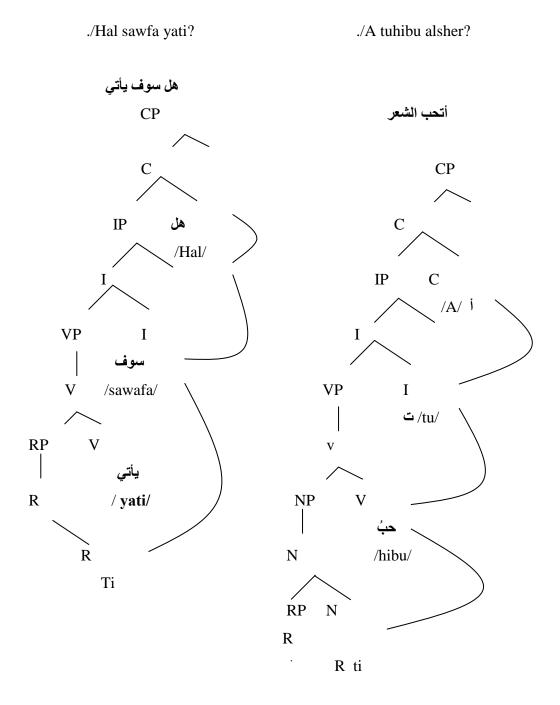
Interrogatives are made by using the overt complementizer (i.e. هل and أ). The particles are usually generated at the end of each clause and they are moved toward

their Complemetizer position. The particle –movement has two main features: First, this movement is an upward one, never downward. Second, the moved particle leaves behind an empty category "trace" which must have the same head feature as the moved element or the particle. Thus, the empty category would seem to be a silent copy of the moved constituent that it has the same grammatical properties as the moved constituent, and which differs from it (moved element) in that it has no phonetic content (Radford, 1997:111-112)

Accordingly, the process, through which the interrogative clause, (هل سوف يأتي؟), is made requires the application of two operations: First is the merger operation in which the various constituents are linked successively to form (سوف يأتي هل). Second is the movement operation in which the particle (هل) moves from its place to the complementizer positioning in an upward movement and leaving a trace behind. Similarly the interrogative clause (أتحب الشعر) is also formed by the application of the two mentioned operations in addition to affix- lowering movement in which المضارعة) is lowered onto the verb to form a verb phrase.

It is significant to note that these particles are said to apply in successive cycle fashion, moving from the generated position first into VP, then into IP and finally into complementizer position. Each separate movement is local in the sense that it moves only into the head position in the highest layers in successive steps (Ibid: 18).

Representations of the interrogatives are shown below.

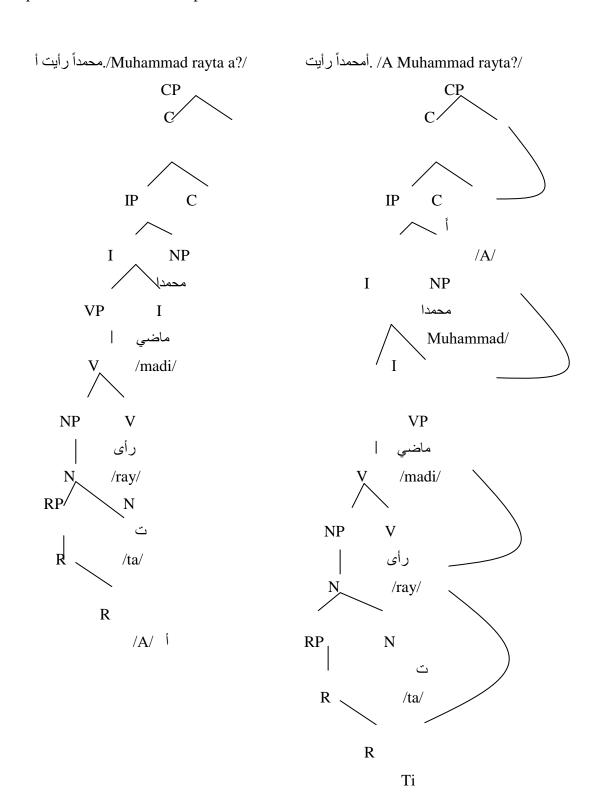


Polar interrogatives, however, may use other types of word order. That is, the part of the clause, about which the speaker/ the writer inquires, is placed immediately after the interrogative particles (Aziz, 1989:256). Consider the following:

- اً محمداً رأيت/?Muhammad rayta
- محمدا رایت أ؟//Muhammad rayta a

The particle, which is originally generated at the end of the clause, is followed by the noun (محمداً) rather than the verb. In the process of making such an interrogative, two operations are required, namely, merger operation and movement operation.

Representations of this example are shown below.

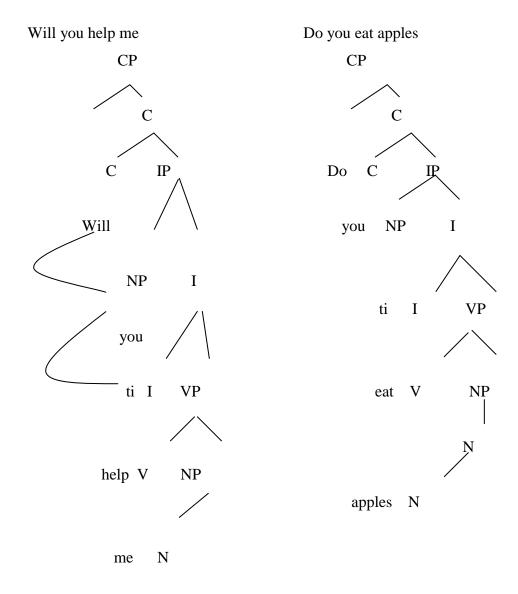


English polar- interrogatives, unlike Arabic, require inversion operation in which the auxiliary moves from its place into the head of CP. This type of movement is called head-to-head movement. Consider the following:

14. Will you help me?

15. Do you eat apples?

The auxiliary (will) in (14) moves in upward movements into the complementizer position leaving a trace which is an empty category of itself. The dummy meaningless auxiliary "do" may be inserted, as in (13), to from the question. These auxiliary moves from its place into the complementizer position leaving a trace as well. Representations of these two cases are shown below.



It has been stated that inflectional suffixes, in English, lower onto the verb. The transformation of inflectional affixes to the complementizer position forces the same inflectional suffixes to rise. This contradiction is solved when do-insertion is applied (Carnie, 2002:208-209). In both these two examples two operations are required. The first is the merger operation and the second is movement operation in which the auxiliaries (will) and (do) are moved to the complementizer position. This movement requires the inversion of subject / auxiliary. Accordingly, English language uses subject / verb inversion and it lacks special complementizer question- particles. Arabic language, however, has special particles and it won't have subject / auxiliary inversion. In this respect Carine (2002:153) states that if a language employs subject / auxiliary inversion, it will lack complementizer question particle. The opposite also holds true and the phenomena are in complementary distribution.

3.2 Information Interrogatives

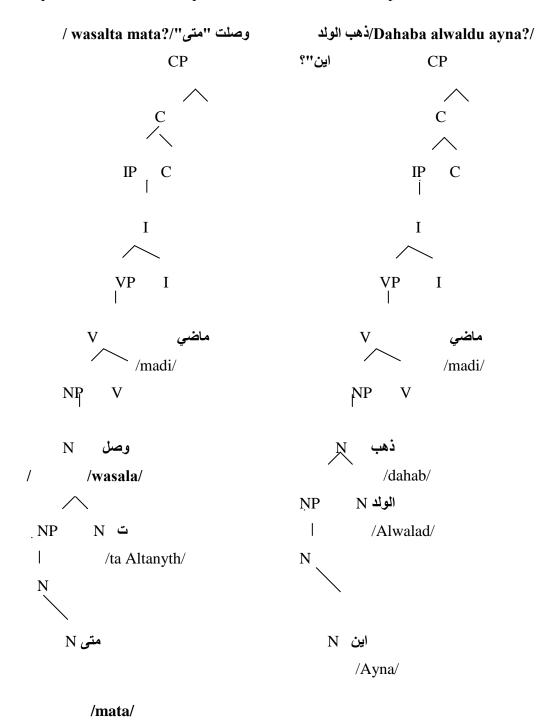
This type of interrogative is used to ask about one of the elements of the clause, thus, a clause may begin with (من) if the inquiry is made regarding the nature, question social position. Other question-words such as (أين), (من) and (منى) are used in inquiry about persons, places and time, respectively (Aziz, 1989:256-257). See also (Jamal Alden, 1980). Consider the following:

متى وصلت/ ?16./Mata wasalta

أين ذهب الولد/?17./Ayn dahab alwaldu

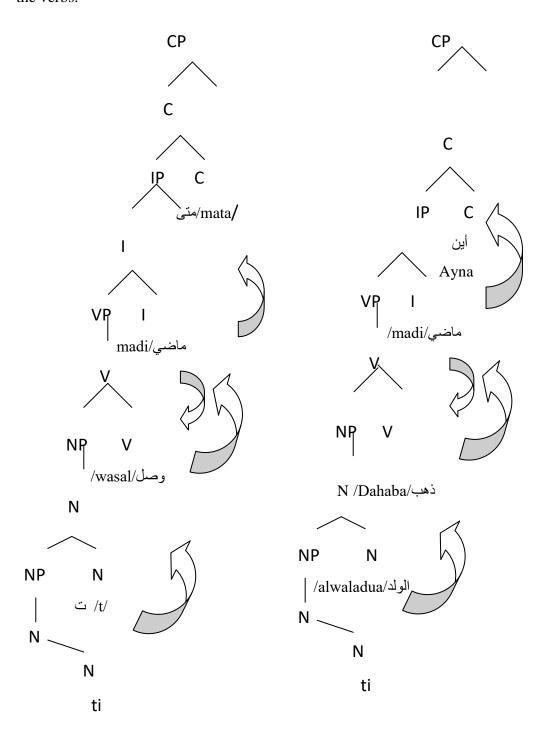
The question-words in these examples are originally generated at the end of each clause and they have to move to the complementizer position. Accordingly, the process of making this type of interrogatives is similar to polar interrogatives in that: First, it does not require subject / verb inversion. Second, it involves the generating of the question words, then, moving in upward movement to the CP leaving a trace.

Representations of the deep structures of the above examples are shown below.



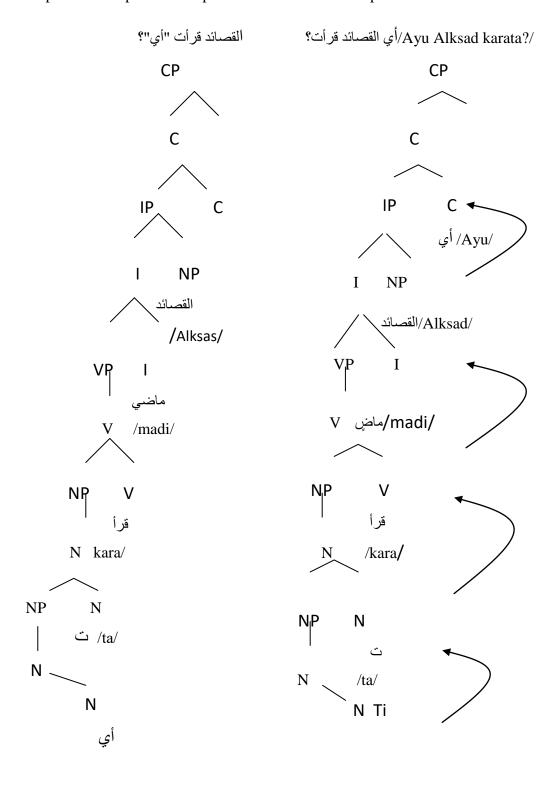
The question –words, which are generated at the level of each clause, have to move from their position to the complementizer positions leaving silent copies of them which have the same grammatical features as the moved words. Representations of this type are shown below. In these representations, the question- words (منت) and (أين) move in successive cycles starting from (NP-bar) and ending with (IP- bar) till they reach the complementizer positions. The affix-lowering operation is also

required to merge the inflectional suffix which is the past tense $\mbox{/madi/}$ (\mbox{olim}) with the verbs.



Sometimes the question- word is followed by a nominal group rather than a verbal group. In such a case a specifier position is not left empty. Consider the following: 18./Ayu alksad karata?/ أي القصائد قرأت

The question word /Ayu/"أي" is followed by the noun/Alksad/ (القصائد) which is in turn followed by the verb/Karata/ (قرأت). The question word, as in the previous example, is generated at the end of the clause and it moves upward towards complementizer position. Representations of this example are show below.



English wh-interrogatives are formed by employing the same operation, i.e. the

question words such as: who, where, when....etc are generated and moved to the specifier position of the CP. The representation of English is shown below.

19. Who was helped?

Was helped who Who was helped CP CP C C IΡ who **VP** VP Was was NΡ NP helped helped Ν N Who ti

Accordingly, the distinction between lexical and auxiliary verbs are irrelevant to Arabic as far as question formation is concerned since Arabic interrogatives are either formed by using the particles (على) and (أ) in polar interrogatives at the beginning of the clause without applying the inversion technique, or by the use of question word in initial position without any type of inversion in information interrogatives. This distinction however is needed in English to apply subject / auxiliary inversion.

4. Negatives

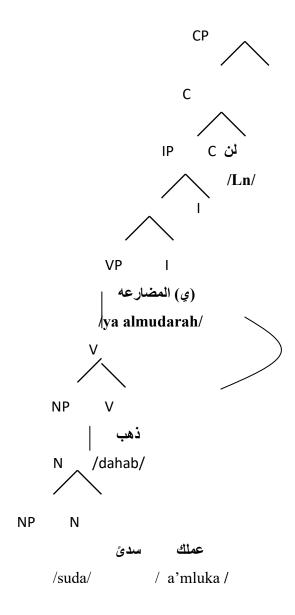
Negation in Arabic is mainly realized by certain particles before the negated item.

The most generalized negative is "\forall". Other negative particles

are"الن"،"الم"،"لم"،"لم"،"لم".....etc.(Aziz,1989:239-241) and (Beeston, 1970:99). In Arabic language, there is no need to clarify verbs according to their functions into auxiliary verb and lexical verbs since the negation is realized by negative particles which are placed before the negated constituent or items. Consider the following:

20. /Ln ydhaba a'mluka suda/لن يذهب عملك سدى

The negative particle (الن) is placed before the negated element which is the verb (يذهب) and accordingly it occupies the complementizer position. The representation of this example is shown below.



English negatives sometimes require the inversion of do-support to negate a clause as in:

- 21. I ate the apple.
- 22. I did not eat the apple.

The dummy and meaningless "do" is inserted before the verb to negate the clause and the negated particle (not) follows it directly.

5. Discussion of Results

The binary-branches analysis to Arabic clauses reveals that Arabic clauses are organized around different types of "heads" which are (NP) and (VP) within the (IP-bar). This is due to the fact that Arabic language is flexible in the sense that a clause usually starts with either (a verb) or (a noun). Within (CP-bar), the clauses may or may not be organized around complementizer-head depending on the nature of the clause, that is, if a clause has a complementizer phrase at the beginning of it, the clause will be organized around this bar and if not, the clause may be organized around (IP-bar).

English clauses, on the other hand, are organized around (NP) head only. This is due to the fact that English language has a fixed word order in the sense that a clause should be started with (NP) head only and never (VP) head. The (IP-bar) and the (CP-bar) may or may not appear at the beginning of the clause. In such a case, English clauses are similar to Arabic clauses.

The application of this theory can manifest itself at different levels including the intermediate and the maximal production with both simple and complex clauses. The main difference is in the application of "IP" projection which can be implicit in Arabic clauses more frequently than English language. The complementizer is evident in all complex clauses in both languages.

The interrogatives in both languages share the same transformational rules which are the generation, movement rules and the affix —lowering rules. The question words are generated under the last node in the tree and have to move in successive cycles till they reach the complementizer positions. The difference, however, lies in the fact that questions in English, unlike Arabic, require inversion operation or head to head

movement and insertion operation. The negatives are formed based on the same transformation process in both languages. The negative element is usually placed or inserted before the negated constitutes.

6. Conclusion

The universality of language is clearly evident through the application of the binary approach. The general application proves that both languages can be analyzed within one main projection that has two nodes. Despite the differences between the word-order of the two languages, the application shows that all clauses are organized around NP, VP, IP and CP projections. The differences can be handled by switching the binary projection to start with the right side to suit the application in Arabic.

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Exploring sexual objectification of women in print-media adverts: A multimodal analysis

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Abstract

This study aims to analyze the sexual objectification of women in print media adverts where women are treated as a sexual commodity instead of a person. Advertisements are instrumental tool for utilizing and propagating sexist notions and images as a tool for marketing in the consumer society (Jacobson and Mazur, 1995). A large amount of data reveals that advertisements not only sell products but sex, and contribute to the objectification of women by making them objects of desire (Ullah and Khan, 2014).

The data for the study comprises print media adverts collected randomly from Pakistani newspapers and magazine covers. The adverts in these media, in accordance with the principle of economy of space, maximize their effect by using sexualized images of women in order to seize the attention of general public. As all the advertisements are composite texts having more than one mode of meaning-making therefore a multimodal discourse analysis approach (Kress and Leeuwen, 2006) based on systemic functional linguistics (Halliday and Matthiessen, 2004) is used in this research. It analyzes various semiotic resources employed in advertisements like gaze, posture, color, size of shot, space, smile, etc. to decipher the sexist images. For example, this research shows that gaze directed in an erotic manner is the most frequently used mode in all the adverts. Therefore, this study reveals the objectification of women in print media advertisements in Pakistan through representational, interactional and compositional meanings (Kress and Leeuwen, 1996).

Keywords: Print media adverts, sexual objectification, sexism, Multimodal Discourse Analysis.

1. Introduction

This research explores the pervasive notion of sexism in Pakistani advertisements/media. It particularly presents a study on the print media adverts of Pakistan where women are portrayed as sexual commodities which consequently affect the socio-cultural representation of women in the society owing to stigmatization. Moreover, it also probes how glossy magazine covers reduce the status of women to mere objects of embellishment with no deference to their individual identities.

In this corporate world where everything carries a price tag, "sexual commerce" (Bernstein, 2007) has become an industry in itself. In addition, the hegemony of consumerism and a pressure of commercial success have led to the sexual objectification of women in order to enhance readership. For instance, a plethora of magazines grace the market monthly as well as weekly, therefore to instantly attract the attention of their potential buyers, sexually objectified images of women embellish the magazine covers as a persuasive strategy. Moreover, this is done by manipulating women's concept of independence and equating it with the representation of women as sex objects in the name of freedom of choice. Hence, "women's sexuality is equated with the portrayal of women as sex objects" (Armstrong, 2013).

The rapid globalization that has made this world a global village resulted in proliferation of this concept of sexual objectification from western media to all over the world. Sexist media relegates the status of women from a being to an object As a result of ubiquitous advertising, a schism between stereotyped roles of men and women prevail in the society.

As the discourse of print media adverts is multimodal in nature with a considerable emphasis given to modes other than the written language i.e. visual modes, therefore, a multimodal discourse analysis approach put forward by Kress and Van Leeuwen (1996) is used to evaluate the data. Hence, this research deals with the various multimodal elements that help in the indoctrination of sexual objectification of women through advertisements.

2. Review of the Literature Relevant to the Study

Sexism, in general terms, is the stereotyping or prejudice mostly against women based on their sex. According to Buchanan (2010) sexism is "the assumption that a person is inferior because of their sex...effectively reducing them to the status of an object". This concept of sexism is manifested in daily use of language as well as advertisements which portray women as sexual objects in the garb of confident ideal women as a strategy to sell products.

Courtney and Whipple (1974) defined sexual objects as women who have no function in an advertisement, rather appear as an item of embellishment. Sexual objectification "occurs when woman's body or body parts are singled out and separated from her as a person and she is viewed primarily as a physical object of male sexual desire" (Bartky, 1990, as cited in Szymanski, Moffitt & Carr, 2011). According to Kilbourne (1993) sex object in an advertisement is a mannequin who is flawless and has no blemishes or wrinkles in fact "has no pores" (p.637).

Grammer (1998) shed light on the sexual objectification and exploitation of women in advertisements. He showed that advertisements are crucial in indoctrination and apt for projecting "women as sex symbols and as an inferior class of human being" (p. 220). Moreover, women in advertisements are shown as "being of high productive value (i.e. attractive) and sexually receptive (nude)" (p. 228).

Stankiewicz and Rosselli (2008) empirically investigated advertisements from 58 popular U.S. magazines to determine the extent to which women were sexually objectified in print advertisements. It was found that almost one half of adverts featuring women presented them as sexual objects. Moreover, the content analysis of these advertisements surprisingly revealed that the highest rates of sexual objectification of women were found in men's magazines than any other magazine type.

Ullah and Khan (2014) particularly analyzed objectification of women in television advertisements in Pakistan. They propagated the idea that commercials objectifying women's body "legitimize female body as a spectacle". Also such images of sexual objectification created by sexist media idealize the unattainable standards of svelte, slender and tender bodies as a standard of beauty and acceptance in society.

Moreover, a sexually objectified image also "relegates women to mere objects of desire, leisure, sex, rather than people with emotions and feelings".

Aubrey, Hopper and Mbure (2011) examined the effects of sexual objectification of women in advertisements on sexual beliefs of men in society. They showed that men exposed to more sexually objectifying music videos had "more adversarial sexual beliefs, more acceptance of interpersonal violence, and…more negative attitudes about sexual harassment" (p. 360).

In this research various print media adverts of Pakistan are analyzed through multimodal approach. Multimodality is defined as "The phenomenon in texts and communicative events whereby a variety of 'semiotic modes' (means of expression) are integrated into a unified whole" (Van Leeuwen & Kress 2011: 107). So this study explores sexual objectification of women in advertisements through a multimodal analysis of different semiotic resources employed in adverts.

3. Research Questions

The aim of this research is to explicate various semiotic resources used in print media adverts and the way language and images correspond with one another to sexually objectify women, therefore, following questions help to deal with the objectives of this research.

- What set of modes are employed to embody women in advertisements?
- How language is integrated with women images in a composite text to construct meanings?

4. Research Methodology

In this research, ten samples of print media adverts taken from various Pakistani magazines and newspapers are analyzed through a multimodal discourse analysis approach. There is a range of magazines being analyzed from international fashion publications in Pakistan such as *Hello*, *OK* and *SHE* to Pakistani fashion and lifestyle publications such as *Fashion Diet Fortnightly, Xpoze* and *eBuzz*. Likewise, weekly publications such as *Mag The Weekly* and a newspaper cutting from *Daily Express* are also analyzed. The samples selected from these sources are considered representative of the aim and are selected keeping in view the multimodal representation approach adopted for this paper. Each sample was then analyzed separately using the following methodology.

The visual discourse of the samples of print media adverts is analyzed through multimodal discourse analysis approach proposed by Kress and van Leeuwen (2006) and based on Systemic Functional Linguistics of Halliday (1994). According to this approach each sample is evaluated based on three metafunctions:

- i. Representational meaning
- ii. Interactional meaning
- iii.Compositional meaning
- i. Representational meaning: It refers to "the content or potential ideas, stories, and concepts represented in a multimodal ensemble" (Serafini, 2013). It is further recognized by two major processes i.e. narrative process and conceptual process. Narrative process presents "unfolding actions and events,

- processes of change, transitory spatial arrangements" (Kress and van Leeuwen, 2006) by the use of vectors. A vector is an invisible line that is used to direct or connect two participants by the use of gaze, limbs or tools. Narrative process has further two processes; action process and reaction process. Contrarily, conceptual process is characterized by the lack of vectors. It presents participants "in terms of their more generalized and more or less stable and timeless essence" (ibid.). It is further branched into three processes; classificational process, analytical process and symbolic process.
- ii. Interactional meaning: It refers to "the relationship created between the actors or objects in an image and how they are perceived by the viewer" (Serafini, 2013). It is further characterized by four aspects i.e. gaze, size of frame, perspective and modality, only first three being relevant to the study are further explained. The first aspect, gaze deals with the presence or absence of eye contact between represented participants and viewers. If the gaze of represented participants is directed towards the viewers, it makes a "demand" picture. Such image demands from viewers to form an imaginary relation with them and enter into their world. In contrast, if the gaze of represented participants is directed away from the viewers and there is no eye contact between them, it makes an "offer" picture. Such image is offered as an item of information or an object of contemplation for the viewers. The second aspect, size of frame determines the social distance between represented participants and viewers. Generally, three kinds of shots are most frequently used; close shot, medium shot and long shot. Close shot (head and shoulders) implies an intimate distance; medium shot (waist) suggests a social distance whereas long shot (whole figure) indicates an impersonal or public distance between represented and interactive participants. The third aspect, perspective elucidates the attitude towards the represented participants in a visual discourse. It is further recognized by two different camera angles; horizontal angle and vertical angle. Horizontal angle is the result of relationship between frontal plane of represented participants and that of interactive participants. If the two planes align with one another then it forms a frontal angle which implies maximum involvement of interactive participants with the represented participants. Contrarily, if the two planes diverge from one another then it forms an oblique angle which indicates detachment of interactive participants with the represented participants. Vertical angle, on the other hand, helps to develop power relations between interactive participants and represented participants. If the subject is shot from a high-level angle then viewers seem to have symbolic power over the represented participant thus making it look insignificant and subject to control and power. If the subject is shot from a low-level angle then the represented participant seems to have symbolic power over the viewers thus the subject looks powerful and awesome. Lastly, if the subject is shot from an eye-level angle then it seems to have symbolic equality between represented and interactive participants, consequently, there is no power relation between the two.

iii. Compositional meaning: It refers to "the spatial organization of elements and the framing devices that connect and separate these elements in multimodal ensembles" (Serafini, 2013). It is characterized by three aspects i.e. information value, salience, framing. Information value is the endowment of specific informational value to various elements in a visual discourse according to the zone of their location. It has further three types of layout; new-given, ideal-real and centre-margin. In a new-given structure the elements on the left side along a horizontal axis are presented as "given" i.e. what is already known or what can be accessed by the viewers whereas the elements on the right side along a horizontal axis are presented as "new" i.e. what is not yet known, so special attention must be paid to it. In an ideal-real structure the elements in the upper section along a vertical axis are presented as "ideal" i.e. what is highly valued and associated with power and authority while the elements in the lower section are presented as "real" i.e. what is less highly valued and associated with low status. Lastly, in a centre-margin structure the elements at the centre of a layout are considered as the nucleus of information whereas elements at the margin are considered ancillary or subservient to the centre. The second aspect, salience deals with the degree of attention an element draws towards itself. It is determined by the relative size of an element, color contrast etc. The third aspect, framing deals with the degree to which various elements are connected or disconnected with one another owing to framing devices used. Some of the framing devices are frame lines, discontinuity of color or shape etc.

Apart from visual discourse, the language used on the print media adverts is analyzed in relation to the images interpreted. Hence using this methodology different print media adverts will be analyzed.

5. Data Analysis and Interpretation

Selected data have been analyzed and interpreted below through multimodal discourse analysis.

5.1. Sample One



Figure 1: Cover page of Hello! Pakistan magazine

5.1.1. Visual analysis:

i. Representational meaning:

This narrative discourse portrays female in the capacity of sexual object. This narrative representation consists of a transactional action process where the arm of the represented participant forms the vector thus directing the eyes to the hair that are swept sideways. The woman in the poster looks sensuous owing to her tanned skin which is a symbol of attractiveness. Moreover, she is exposing her curvilinear back by sweeping her hair sideways. Therefore, she is being represented as a sexual commodity owing to sexual objectification i.e. the focus is on her undraped back with an oblique view of her face.

ii. Interactional meaning:

This image also forms a relationship between represented participants and viewers. Considering gaze, this is an "offer" picture as the female participant is directing her gaze away from the viewers, hence, acts as an object of contemplation for the viewers. Considering size of frame, this is a medium shot which means that represented participant is socially closer and forms an informal social relationship. As far as perspective is concerned, the horizontal angle is oblique which implies a sense of detachment and makes the represented participant look like an object. On the other hand, vertical angle indicates a relationship of equality between female participant and viewers being shot from an eye-level angle.

iii. Compositional meaning:

Concerning information value, it has a centre-margin structure. The female represented participant in the nucleus of poster acts as a centre of attention for the viewers, further objectifying her body. On the other hand, text written on the periphery acts as an auxiliary that accentuates the objectification of women. Considering salience, the woman in the poster is the most salient part of the poster owing to the large size of image which makes her look like a commodity. Moreover, no framing devices are used in the poster.

5.1.2. Textual analysis:

This magazine cover has several cover lines written on it but the most fore grounded one reads "The body and beauty issue". In this phrase "body and beauty" are written in a large font to associate beauty with body hence isolating women from their identity as a person and making them look like sexual commodities. Moreover, it is written in the lower section of the poster which implies that women, hence their bodies, are subject to control. Similarly, other phrases like "the beauty icon" and "fit and fab at every age" further reduce status of women to sexual images recognized by their bodies.

5.2. Sample Two



Figure 2: Cover page of OK! Pakistan magazine

5.2.1. Visual analysis:

i. Representational meaning:

This narrative discourse demonstrates a world of female representation from the perspective of sexual objectification. It forms a reaction non-transactional process with female participant acting as a reactor and no phenomenon thus directing her gaze towards the viewers and calling their attention. The represented participant has an erotic gaze directed in a tempting manner and lips slightly apart giving her a sensual look. Thus, this poster signifies the sexual objectification of women.

ii. Interactional meaning:

Concerning gaze, it forms a "demand" picture with represented participant directing her gaze towards the viewers and addressing them directly by forming an imaginary relation with them. Considering size of frame, it is a close shot which signifies an intimate relationship between represented and interactive participants. It gives a sense of engagement that the represented participant can be touched and used. As far as perspective is concerned, horizontal angle is slightly oblique which shows that viewers are not entirely involved with her nor completely detached whereas vertical angle objectifies her as a subject of control being shot from a high level angle.

iii. Compositional meaning:

Speaking of information value, it forms a centre-margin structure as well as ideal-real structure. According to centre-margin structure, the female participant is located in the centre of poster and makes her focal point of attention thus objectifying her. In the same way ideal-real structure objectifies her because the female participant is present in the lower section of poster thus making her object of control whereas male participant is located in the upper- right section of poster which signifies that he owns power to subjugate women in general. Concerning salience, female represented participant is the most salient part of whole poster thus drawing attention towards her. Moreover, frame lines are used as a framing device to mark a difference between more powerful male participant and less powerful female participant.

5.2.2. Textual analysis:

This magazine cover has four cover lines out of which "Global art: Rashid Rana brings Venice to Lahore" stands apart. Venice has a history of being notorious for sex work. Prostitution thrived as a business in Venice with courtesans having a high social status. So, Venice in this cover line connotes the sex work that was indispensable in Venice now being carried to Lahore i.e. Pakistan and the resultant sexual objectification of Pakistani women. Moreover, "global art" implies that the global trend of sexual objectification of women has now become a part of Pakistani society as well.

5.3. Sample Three



Figure 3: Cover page of Fashion Diet Fortnightly magazine

5.3.1. Visual analysis:

i. Representational meaning:

This narrative discourse portrays woman as a sexual commodity. It forms an action-transactional process. The woman in the poster acts as an actor with her arm wrapped around the male participant who acts as a goal. The female represented participant is directing her gaze towards the viewers with her lips slightly apart in an enticing manner which shows that she is a sexual object who is ready to offer her services. Besides, there are three roses turned upside down which implies carnal relation between the participants instead of an emotional one. Moreover, there is a lot of skin show and both the participants are apparently topless which gives it a sexual connotation.

ii. Interactional meaning:

Considering gaze, it forms a "demand" picture with female participant directing her gaze towards the viewers thus inviting them to enter her world. Concerning size of frame, it is a medium shot therefore it forms a social or business discourse of customer services between female participant and the viewers. Speaking of perspective, horizontal angle is frontal which calls for viewers' attention and involvement in the world of represented participants whereas vertical angle implies equality between represented participants and viewers being shot from an eye-level angle.

iii. Compositional meaning:

Concerning information value, this is an ideal-real structure. The represented participants are located in the lower section (real) of the poster and the female participant being the actor and facing the camera suggests that she is subject to power and control. Speaking of salience, the represented participants are the most salient part of the poster and tend to highlight the sensual relation between the two. Moreover, a line is used as a framing device to divide the cover in ideal-real structure.

5.3.2. Textual analysis:

This magazine cover reads "Cast the spell... This valentines". "Cast a spell" is an idiom which means to enchant, intrigue or entice someone. This implies that women tempt men with their bodies thus making them sexual commodities. This is further reinforced by female participant being portrayed as a sexual object. Moreover, the logo of magazine used in the top left corner also includes an ideal body image of a woman and associating the words "fashion" and "diet" with that ideal image reduces the bodies of women to sex objects that have to look glamorous.

5.4. Sample Four



Figure 4: Newspaper cutting from Daily Express

5.4.1. Visual analysis:

i. Representational meaning:

This narrative discourse demonstrates sexual objectification of a woman as a persuasion strategy. It forms a reaction non-transactional process where the female participant acts as a reactor by directing her gaze in an erotic manner towards the viewers. Also, her lips are slightly apart that gives her a sensuous look. Moreover, she is in a lying posture exposing her curvilinear body which further adds to her objectification.

ii. Interactional meaning:

Concerning gaze, this is a "demand" picture as represented participant is directing her gaze towards the viewers thus inviting them to enter her world. Speaking of size of frame, this is a medium shot which forms a social or business discourse between interactive and represented participants. As far as perspective is concerned, horizontal

angle is frontal which suggests involvement of viewers with the represented participant whereas vertical angle proposes equality as it is shot from eye-level angle.

iii. Compositional meaning:

Considering information value, this is an ideal-real structure. The image of female participant in the lower section (real) of newspaper suggests that she is a sexual commodity who is subject to power and control. Considering salience, the female participant is the most salient part on the whole newspaper page owing to the large size of the image and bright red color she is wearing against a light background. Moreover, framing lines are used as framing devices.

5.4.2. Textual Analysis:

This newspaper cutting is the front page of a Pakistani daily where national and international news are published. Therefore, publishing a large image of woman depicted in a sensuous manner seems out of context hence implies the sexual objectification of women.

5.5. Sample Five

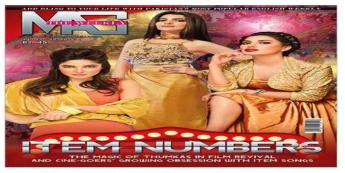


Figure 5: Cover page of Mag The Weekly magazine

5.5.1. Visual analysis:

i. Representational meaning:

This conceptual discourse demonstrates a world of sexual objectification of women. It forms an analytical process with the three female participants being the carrier who are characterized by glittery and shimmery clothes as a possessive attribute apt for item girls. Moreover, all the girls are directing their gaze in an erotic manner and they exude sensuality owing to their postures thus making them sexual objects.

ii. Interactional meaning:

Considering gaze, this is a "demand" picture as all the three female participants are directing their gaze towards the viewers thus inviting them to enter their world and identify with them. Concerning size of frame, this is a medium long shot which suggests an impersonal business between represented participants and viewers. As far as perspective is concerned, horizontal angle is frontal which indicates the involvement of viewers with the female participants whereas vertical angle makes the represented participants look imposing in a sexual connotation as they are shot from a low-level angle.

iii. Compositional meaning:

Speaking of information value, it forms a centre-margin structure. The three female participants at the nucleus of the cover make them centre of attention for viewers thus sexually objectifying them. Besides, the language in the periphery acts as ancillary and helps to heighten the effect of sexual objectification in images. Considering salience, the three represented participants are the most salient in the whole cover thus, further objectifying them. Moreover, framing devices of color are used.

5.5.2. Textual analysis:

This magazine cover reads "Item numbers: The magic of thumkas in film revival and cine-goers' growing obsession with item songs". Item numbers are highly sexualized songs with women acting as sexual objects in revealing clothes. The cover line implies that women projected as sex objects have become a part of the culture of cinema and consequently public conscious. Phrases like "magic of thumkas" and "growing obsession" further objectify women bodies.

5.6. Sample Six:

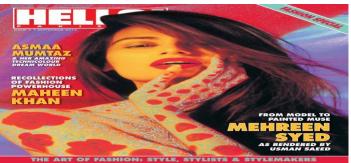


Figure six: Cover page of Hello! Pakistan magazine

5.6.1. Visual analysis:

i. Representational meaning:

This narrative discourse constructs the world of female portrayal where a woman is portrayed as a sexual entity. It forms an action-transactional process. The female participant on the cover acts as an actor whose hand positioned near her lips forms a vector thus drawing attention towards the lips; hence, lips act as a goal. Besides, the female participant is directing her gaze in a highly sensuous manner towards the viewers with her lips slightly apart giving her an erotic look. Moreover, the female participant is wearing red lipstick with hue of red color apparent on her body as well as background which is connotative of sexuality.

ii. Interactional meaning:

Concerning gaze, this is a "demand" picture as the female participant is directing her gaze towards the viewers thus inviting them to enter her world. Speaking of size of frame, this is a close shot which implies personal and intimate relationship between viewers and the represented participant. Considering perspective, horizontal angle is frontal which indicates involvement of viewers with the female participant whereas vertical angle makes the represented participant look awesome and glamorous being shot from a low-level angle.

iii. Compositional meaning:

Considering information value, it has a centre-margin structure. The image of female participant at the centre of the cover makes her focal point of attention thus

objectifying her. Language at the periphery helps to accentuate the meaning of image. Concerning salience, women participant is the most salient part in the whole semester thus objectifying he body. Moreover, framing devices of color are used.

5.6.2. Textual analysis:

This magazine cover has several cover lines written on it but the one relevant to the image reads "From model to painted muse". The words "model" and "painted muse" both correspond to objects of beauty or embellishment. Muse refers to a goddess but painted makes it sound like an object of adornment. Therefore, the choice of these words with the image of the female participant helps in sexual objectification of women.

5.7. Sample Seven:



Figure 7: Cover page of *Xpoze Monthly* magazine

5.7.1. Visual Analysis:

i. Representational meaning:

This narrative discourse sexually objectifies the woman on the cover. It forms a reaction non-transactional process with the woman in the poster acting as a reactor as she is directing her gaze towards the readers. Similarly, she is also employing the vector of smile to attract the attention of readers towards her. Moreover, the represented participant is sitting on the floor with her bare shoulders which makes her look vulnerable and objectified.

ii. Interactional meaning:

Considering gaze, it forms a "demand" picture as the represented participant is directing her gaze towards the readers thus inviting them to enter her world. Speaking of size of frame, it is a medium shot which implies a social or business discourse between represented and interactive participants. As far as perspective is concerned, horizontal angle is slightly oblique which means that readers are not fully involved or completely detached from the female participant whereas vertical angle makes her look vulnerable and subject to power and control being shot from a high level angle.

iii. Compositional meaning:

Concerning information value, it has a given-new structure. The female participant is present on the left hand side of the cover (given) which implies that she can be easily accessed by the readers. As far as salience is concerned the female participant is the most salient part of the cover owing to large size image. Moreover, framing device of color is used to individualize her name on the right hand side.

5.7.2. Textual analysis:

This cover has several cover lines but the main cover line reads "Glam-Girl: Mathira". This is the most fore grounded cover line and is enhanced through graphological features like large font size, bold, and a distinct use of color. Moreover, Glam-girl is a girl who is attractive pertaining to her outer outlook and physical features thus reducing the stature of women to objects of embellishment. Hence, this image sexually objectifies women.

5.8. Sample Eight:



Figure 8: Cover page of SHE magazine

5.8.1. Visual analysis:

i. Representational meaning:

This conceptual discourse constructs a world of female representation from the perspective of sexual objectification. It forms a symbolic suggestive process with the female participant on the cover acting as a carrier. She is depicted as a timeless beauty with her lips slightly apart giving her a sensuous look. Moreover, her posture and slightly tanned skin helps to exude sensuality. Thus, the female participant looks like a sexual object that stands in the frame with her oblique side of the face.

ii. Interactional meaning:

Considering gaze, it forms an "offer" picture as the represented participant is directing her gaze away from the readers thus acts as an object of contemplation for the readers. Concerning size of frame, this is a medium shot which implies a business discourse between represented and interactive participants. Speaking of perspective, horizontal angle is oblique which suggests detachment of readers with the female participant and projects her as an object. On the other hand, vertical angle makes her look glamorous being shot from a low-level angle.

iii. Compositional meaning:

Speaking of information value, it forms a centre-margin structure. The female participant at the centre of the cover looks like a sexual object as she is the focus of attention whereas the cover lines at the periphery add to the objectification of the represented participant. Concerning salience, the female participant is the most salient part in the whole cover thus further objectifying her. Moreover, no framing devices are used which implies that the image and the cover lines correspond with one another and are coherent.

5.8.2. Textual analysis:

This cover has three cover lines which further accentuate sexual objectification of the represented participant. The first one reads "The oomph factor!" "Oomph" is an

informal word that refers to the quality of being appealing or sexually attractive. Moreover, "oomph" is written in a pink color which adds to the femininity. Similarly, the second cover line reads "Elan: The return of bling". "Bling" again is an informal word that indicates the ostentatious or materialistic attitudes attached to style which makes women as objects of embellishment that need to be stylized in order to look sensuous. Also, the third cover line "Glamour galore" reduces women to physical objects that need to look charming and attractive. Therefore, the choice of words of the cover lines along with the image of female participant sexually objectifies the women.

5.9. Sample Nine:



Figure 9: Cover page of *Paperazzi* magazine

5.9.1. Visual analysis:

i. Representational meaning:

This narrative discourse demonstrates the female participant in a sexually objectified manner. It forms a reaction non-transactional process where the woman on the cover acts as a reactor as she directs her gaze towards the viewers. The female participant is directing her gaze in a very tempting manner with her lips slightly apart giving her a sensuous look. Also, she has cupped her both hands together behind her head and exposing her leg through the slit of her dress which makes her look confident in a sexual way. Besides, it also makes her look like an object exposing her body. Moreover, the black color she is wearing is often associated with intrigue and enticement.

ii. Interactional meaning:

Concerning gaze, it forms a "demand" picture as the represented participant is directing her gaze towards the viewers thus inviting them to enter her world. Concerning size of frame, this is a medium long shot which creates a close social distance between represented and interactive participants thus implying an impersonal business between them. As far as perspective is concerned, horizontal angle is frontal which indicates maximum involvement of readers with the represented participant whereas vertical angle makes the female participant look glamorous being shot from a low-level angle.

iii. Compositional meaning:

Considering information value, this is a centre-margin structure. The female participant is pictured at the centre of the cover that helps her grab all the attention of

the readers thus making her an object of embellishment and sensuousness. Speaking of salience, the female participant is the most salient in the whole cover owing to the dark color she is wearing against a light background as well as the large size of her image hence objectifying her. Moreover, framing device of color is used to make the language cohere with the image. Black color is used as a framing device to logically connect the words written in it to the image of the represented participant who is also wearing a black gown.

5.9.2. Textual Analysis:

The main cover line of this magazine cover reads "Who's hot this week..." The word "hot" has a connotation of being sexually attractive. Therefore, the framing device of color is used to affix this concept with the female represented participant thus reducing her to the status of a sexual object.

5.10. Sample Ten:



Figure 10: Cover page of *eBuzz* magazine

5.10.1. Visual analysis:

i. Representational meaning:

This narrative discourse portrays the female represented participant as a sexual object. It forms a reaction non-transactional process where the female participant acts as a reactor as she is directing her gaze towards the viewers. Besides, she also uses smile as a vector to enchant her readers. Moreover, her shoulders are hunched forward which makes her look vulnerable and susceptible to control thus sexually objectifying her.

ii. Interactional meaning:

Considering gaze, it forms a "demand" picture as the represented participant is directing her gaze towards the viewers thus inviting them to enter her world and align with her. Speaking of size of frame, this is a medium close shot which implies a far personal distance between represented and interactive participants thus suggesting a fair intimacy between the two. Concerning perspective, horizontal angle is slightly oblique which means that readers are not fully attached or completely detached from the represented participant thus indicates a sort of closeness or familiarity between the two participants. On the other hand, vertical angle proposes equality between readers and the female participant being shot from an eye-level angle.

iii. Compositional meaning:

Considering information value, it forms a centre-margin structure. The female represented participant at the centre of the cover makes her focus of attention thus

objectifying her. Speaking of salience, the female participant is the most salient part of the cover owing to the dark color she is wearing and the large size of her image. Moreover, no framing devices are used.

5.10.2. Textual analysis:

This magazine cover has several cover lines but the relevant one reads "In focus: The fiery Fia". The word "fiery" again has a sexual connotation of being too appealing and tempting. Thus, it adds to the sexual objectification of the model presented on the cover.

Conclusion

This research explored that sexism is not only expressed through language in the form of sexist remarks but also depicted in print media adverts through sexual objectification of women. It also suggests the idea that these sexually objectified images become a part of the collective consciousness of society through media and lead to a general maltreatment of women in society. In today's world the constant exposure of sexually objectified images of women has set the yardstick for women's worth based upon their bodies. This has automatically put them in a subordinate societal stratum. As a result, men have got liberty in treating women as their property. They are more tolerant of practices such as molestation, rape culture, sexual harassment and physical abuse. On the other hand, women are also affected by the way they perceive themselves. There is a constant struggle to achieve an ideal body in order to become an "ideal" woman. This leads to various mental problems and eating disorders in women, hence deteriorating their self-esteem. Moreover, such advertisements stigmatize women in a particular role of subordination.

The first research question deals with the multiple modes employed in print media adverts to make meaning. It can be examined from the samples analyzed in previous section that a variety of semiotic modes are used in communicating meaning. Apart from language, various modes like gaze, gesture, posture, smile and size of shot etc. are used to convey sexual objectification of women. For example, it can be seen in Sample No. 5.4 that represented participant is lying in a revealing posture with an erotic gaze. Moreover, it can be established that the use of erotic gaze as in sample No. 5.2, 5.5 and 5.6 and the use of mode of color as in sample No. 5.6 where red color carries a strong sexual connotation, are the most widely used modes for objectifying women.

The second research question deals with the way language accentuates and contributes to the meaning-making of other modes. It can be seen in the previous section that each sample not only contained visual modes but language also contributed to the process of meaning-making. For example, in Sample No. 5.1 the represented participant is exposing her bare back and a curvilinear body and also shot from a close-up angle adding to her sexual objectification. Apart from these visual modes language is also used in the poster as a mode to objectify women, for example, "The body and beauty issue" indicates that beauty of women is associated with their bodies.

The above mentioned arguments propose the idea that print media adverts are responsible for propagating an ideology or a way of thought in the society. They gradually and slowly nurture society with an idea that later becomes part of the culture of that society. Hence, sexism in our society is the result of sexism in advertisements.

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Learner Autonomy in Second Language Learning

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Abstract

The study aims to explore learner autonomy in language education. A wide range of developments are noticed in learner autonomy research with changing conceptions. Thus, this study critiques the review of literature on learner autonomy. The study highlights pedagogical issues concerning learner autonomy. A great deal of research has significantly widened the theoretical and empirical aspects of learner autonomy. Since, Sinclair (2000) suggests a number of aspects of learner autonomy. One of them is that the learner is willing to take responsibility for his/her own learning. This responsibility makes learner independent. Implications of learner autonomy at all level in general, higher education level in particular, have been a matter of great concern in language education. The study suggests some ways through which learner autonomy can be promoted. The review reports that learners develop autonomy when they own responsibility for their learning inside and outside the classroom.

Keywords: Learner autonomy, Teacher autonomy, Pedagogical issues, Autonomy models.

Introduction

Changes in the world of research and second language teaching have incorporated new trends in terms of teaching and learning practices at higher levels. New methodologies have replaced the old ones. Such shifts were made to improve learning and teaching practices. Early research in second language suggests that the idea of learner seemed to be passive and did not have much space in the classroom. However, learners' participation was not remarkable. They were not even motivated to play an active role in learning. To say so, this practice is still common in South Asian contexts wherein the teacher is the sole authority in the classroom. With the changes in methods, learners began to have much space in the classrooms and they were strongly encouraged to interact and take part in academic activities which enriched their understanding and made learning a comfortable experience for them. Moreover, a remarkable growth interest in learner and their learning has examined a number of pedagogical issues. Researchers and practitioners have focused the areas and one among them is learner autonomy in language learning. According to Reinders (2000)

these developments in teaching and learning practices have brought forth learner centered approaches in teaching. A great deal of research in the areas of psychology, education, sociology, applied linguistics has enhanced our understanding of how language learning takes place. This shift however created interest in learner autonomy.

Leaner autonomy has been a centre for research in second language education. The idea of learner autonomy is associated with a number of teaching approaches such as cooperative learning, independent learning, self—directed learning, project based learning, E learning. Language autonomy covers all these approaches in teaching practices at all levels in education. A number of definitions are given by researchers, however, one among these is Holec's (1981) definition that is still cited in autonomy studies.

To begin talk on autonomy, we cannot forget to mention Holec (1981) who treated autonomy as an attribute of the learner. This makes a sense that learner has to take charge of what he/she learns and relearns. The learner plays main role in learning. The idea of learner autonomy was basically linked with language pedagogy which replaced traditional classroom practices with new ones (Allwright, 1988). Research on autonomy shows that traditional teaching practices proved to be obsolete in developing conceptions of pedagogy in the world. Autonomy research suggested practitioners to redesign language pedagogy and make efforts to improve teaching practices at all levels in education.

Researchers such as Holec (1981), Benson (2006) and Borg and Al Busaidi (2012) introduced autonomy and implemented in the classroom research. Thus, the impact of such change in language teaching and learning posed a couple of questions for practitioners. The questions were associated with pedagogical issues. Addressing such issues, Smith (2003) conducted research and stated association of weak and strong pedagogies with learner autonomy. In weak pedagogy, students lack capacity while strong pedagogy, learners are autonomous in advance to some degree.

There is a considerable interest and influence of autonomy research in language education. First, it emerged from Council of Europe. This idea was promoted and implemented by researchers in educational settings

In this study, we critically review the existing literature on leaner autonomy including teachers' perspectives about it in second language education. The present study actually aims to discuss leaner autonomy from all dimensions and focuses on the changing paradigms in globalizing autonomy research.

Definitions of autonomy

Little (1991) defines autonomy as 'a capacity for detachment, critical reflection, decision-making, and independent action' (p. 4). Dickenson (1992) describes autonomy as 'the situation in which the learner is totally responsible for all the decisions concerned with his learning and the implementation of those decisions' (p. 11). Moreover, according to Little (2003), autonomy entails decision-making, critical reflection and social interaction. However, Oxford (1999) sees autonomy as ability, attitude, action and achievement. Her analysis of autonomy leads to greater achievement. I cite Crabb (1993) who discusses learning more meaningful and more permanent if the learner is in the position to hold responsibility of learning. This motivates the learner, and he/she becomes a successful learner. This is psychological statement because learners learn better when they are in charge of their learning.

In earlier studies, leaner autonomy referred to a learning situation without a teacher which was considered to be incorrect idea and was corrected with that learner autonomy tends to be identified as a capacity to take control of learning which can be established and employed in the classroom (Little, 1991). Recently, a number of changes have been incorporated in curricula in European countries concerning goal of autonomy in education. The study of Sinclair (2000) is worth reading in this context. Thus, focus on leaner autonomy has given significance to teacher who structures and restructures curricula to implement in classroom settings. With this focus, pedagogy for autonomy operates effectively. For example, if learners take control or charge of their learning, then the teacher needs to learn to let it go. Such idea makes a sense that the teacher can take on board need to promote learner autonomy.

Studies on learner autonomy

Benson (2006) describes concepts of autonomy research in educational policy and discusses some directions for further inquiry in the field. Thus, autonomy is associated with self-regulation, motivation and socio-cultural theory. Learners learn in autonomous atmosphere of teaching about the choice of their material, learning goals, learning opportunities and self-evaluating process. These are some of the characteristics of autonomous learning in language education. The study on learner autonomy was conducted by Ahmadzadeh and Zabardast, (2014) to describe and

heighten learners' self-autonomy in foreign language learning. This study actually created a platform for future studies in the researcher' context.

Autonomy from learner and teacher perspectives is very revealing in the study of Joshi (2011). He investigated learner autonomy through questionnaire and semi structured interviews. The study was conducted in Nepal. The results indicated that learners were reported to be engaged in activities based on autonomy. Moreover, learners are also supported by teachers who promote autonomy and encourage autonomous activities in classroom. To sum up, the study suggested positive attitude of learner and teacher to autonomy which should be fostered in learning. Learner autonomy has received a considerable focus in applied linguistics. It has been descried and explored in various ways in research. Research on autonomy in language education is conducted using mixed method approaches. The approach entails in depth understanding of the phenomenon. Recently, the study of Al Busaidi and Al-Maamari, (2014) indicated teachers' perspectives on autonomy. It reflected on varying perceptions of language teachers including their new trends in autonomy research. The study is very rich in the sense that it examined teachers' perceptions about LA. This was the gap identified in research on LA.

Al Asmari (2013) researched learner autonomy from teachers' perspectives. It was conducted at Taif University. The study focused English language teachers practices of leaner autonomy in classrooms. The study suggested that teachers should make autonomous learning as an integral part of their teaching practices. Moreover, trainings are required for leaners to assist them to develop ability to take charge of their learning.

Balçıkanlı (2010) studied learner teacher beliefs about LA at Gazi University, Turkey. The data were collected through questionnaire and interviews to determine leaner teacher attitude towards autonomy. The results show that positive attitude was determined in leaner and teacher about learner autonomy. The study also suggested that leaner and teacher were very positive to practice autonomy in learning because it helps learners to be responsible for their learning.

Autonomy can be defined as learner's willingness and ability to take responsibility to plan, implement, monitor and evaluate his/her learning in tasks that are constructed in negotiation with and support from the teacher.

These studies indicate that learner autonomy research may be center in applied linguistics. First, autonomy was explored from learner perspectives but later a lack in

research was identified in the field of teacher autonomy. Now, the above reviewed literature entails that autonomy in learning may be maintained if learners are supposed to be free in learning. Since, it may be clear that human nature needs freedom. So learner should be free to make choice in their learning. Teachers should let learners be free to create and generate material in learning, design curricula for themselves. The role of teacher is very significant in promoting autonomous learning activities from primary to university levels in education.

Leaner Autonomy Models

Some researchers operationalized the idea of autonomy as a matter of degree. The study of Nunan (1997) suggested five models of autonomy such as awareness, involvement, intervention, creation and transcendence. These models could report activities of leaner development in textbooks. To sum up Nunan' (1997) overall idea is to make learners aware of pedagogy and its implications in their learning. Furthermore, three stage model of autonomy was introduced by Littlewood (1997) which included language acquisition, learning approach and personal development. Language acquisition refers to an ability to operate independently and use language to communicate personal meanings in real life. In classroom setting, it engages learners who are able to take responsibility for their own learning. The three stage model of Littlewood (1997) can be simply put as autonomy as communicator, autonomy as a learner and autonomy as a person. Simultaneously, autonomy of three stage model was presented by Macaro (1997) which involved 'autonomy of language competence, autonomy of language learning competence, and autonomy of choice and action' (p. 170-172). Benson (2001) attempted to model learner autonomy which engaged control over learning under umbrella of important headings such as learning management, cognitive processing and the content of learning. However, Benson (2006) addressed this approach limited to the framework of language learning.

Pedagogical perspectives of LA

Little (1991) described three pedagogical perspectives of learner autonomy. First, autonomy empowers learner, second it is proper use of language and last but not least is language as a cognitive tool. However, fundamental principles of learner autonomy are suggested by Little (2007) as follows.

- 1. Learner involvement. This refers to learners who are engaged in classroom activities. By doing this, they feel fully involved in active learning and their role as a passive learner is no more.
- **2. Learner reflection**. Learners are given time to reflect what they learn and unlearn. This freedom in learning helps them to develop reflective thinking. By this principle, learners learn how to reflect their learning and teaching.
- **3.** Target language use. Learners feel free to use target language in and outside classroom. Their focus in language learning is the appropriate use of target language. By two principles, involvement and reflection, the use of target language is maximum medium of instruction.

These three pedagogical principles entail active learning in classroom. Teachers should be careful in taking care of practicing the principles in teaching and learning practices. In the similar vein, Benson (1997, p.1-2) noted various connotations of learner autonomy. These connotations help teachers to take notice of their teaching in classroom. First, learning situations in which learners completely depend on their own learning. Second, a set of skills which can be learned and applied in self-directed learning. Third, an inborn capacity which is suppressed by institutional education. Fourth, the exercise of learners' responsibility for their own learning and last but not least, the right of learners to determine the direction of their own learning.

Teacher autonomy

The idea of learner autonomy as Little (1991) discusses is based on teacher autonomy in two ways. First, it is not reasonable to expect teachers to strengthen autonomy in their learners if they have no knowledge of what it means to be autonomous learner. Teachers must have an ability to apply same reflective teaching practices and self-managing procedures in their classroom teaching. In this context, it is basic notion that teachers, practitioners should experience autonomous language skills in their teacher trainings, and then they can contribute to fostering (development) of learner autonomy in their teaching and learning practices. As a result, learners take control of their learning keeping in mind models of teachers. Let us agree to the point of view of Holec, Benson and Little that learner autonomy in language education focuses not only on out class learning but also classroom practice. Teachers play a pivotal role in fostering autonomy taking into account out of class and classroom perspectives. This trend was developed in research that teachers' autonomy may be highlighted to understand learner autonomy in depth. Researchers cited above discuss teachers' role

in promoting autonomy in language classes. It is very essential to know that teachers should be able to understand what autonomy is in language education. If they are familiar then they can work to promote it and foster learning practices.

The questionnaire developed by Al Asmari (2013) focuses on teachers' perceptions and teaching strategies in learning. It is divided into three sections. First, current situations in teaching, second, teaching strategies and third, futuristic aspects of LA.

Borg and Al Busaidi (2012) developed a questionnaire to examine learner autonomy. It is considered to be reliable and valid in LA research. Earlier developed questionnaires focus only on learner, however, this questionnaire covers leaner and teacher point of views about autonomy in language learning. To me, it sounds balanced and can be replicated in own context. It is five point Likert scale ranging from strongly disagree) to strongly disagree).

Joshi (2011) also developed a questionnaire to investigate learner autonomy. This was valid and reliable too to collect data from learners at university level. This also contributed to this exiting literature on autonomy research.

Promoting learner autonomy

Learner autonomy may be summarized in three major areas in language learning education. First, learning should be meaningful and effective. Second, learners hold responsibility for their learning. Third, when learners hold responsibility, they of course become more active in learning (Little, 1991; Littlewood, 1997).

The study of Borg and Al- Busaidi (2012) recorded some ways to promote learner autonomy. And these ways are listed as (1) talking to students about autonomy and its value (2) encouraging learners to engage in autonomous behaviors (3) getting learners to reflect on their learning (4) using activities in class which promote autonomy (5) setting activities out of class which promote autonomy. Discussing how to promote autonomy, the study of Borg and Al- Busaidi is very rich in learner autonomy in which proper directions are suggested to foster autonomy in learning and teaching practices.

The reviewed literature on leaner autonomy shows that it should be encouraged and promoted in teaching and learning practices. This way, autonomy can be incorporated in curricula from primary to higher education level in Pakistan. There may be a question why autonomy? This may be answered in different ways, but learning is lifelong process, it doesn't stop with 16 or 18 years education. This process should be

continued with choice of leaners who make in their learning. As research suggests that developing autonomy requires conscious awareness of the learning process.

Autonomous learning environment should be created inside and outside classroom. This environment builds confidence in the learner. Then she/he can enjoy that learning. It is very essential to motivate students to take charge of their learning because motivated learning makes all difference in the lifelong learning. By this, the leaner becomes independent and shows willingness to learning. Further, observe them how they are involved in activities, how do they respond to teaching in classroom? This observation can help teachers and researchers to understand easily their learner activities. However, to make research on autonomy more effective then practitioner research is more reliable tool to employ in. It is also true that a lack of practitioner research is identified in the existing literature in Pakistan.

Conclusion

Second language learning has been the main focus of ELT practitioners and professionals. Learner autonomy needs more empirical research in the Asian context. The theoretical perspective offers insight for future researchers.

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Acoustic Behavior of RP Diphthongs in Pakistani English (PakE)

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Abstract

In this research, the acoustic behavior of RP diphthongs has been analyzed in Pakistani English (PakE). A diphthong is a gliding movement from one vowel to another. Received Pronunciation (RP) has eight diphthongs; comprised with long and short vowel combinations. Contrarily, this condition is not compulsory for PakE as speakers show difference in the articulation. It is understood that two diverse languages are following different approaches. If there are some similarities, those are just coincidences. Presently, it has been proposed that Urdu effects the pronunciation of RP diphthongs. Therefore, two different experimental approaches have been selected for the identification of RP diphthongs and their acoustic behavior in PakE. Firstly, auditory approach has reported vocalic segments by using syllable count technique. Secondly, the identified segments have been acoustically investigated in PRAAT software. Data analysis and results have reported that Urdu language has influenced and transformed the features of PakE. According to the results, two diphthongs have been articulated as monophthongs (/o/ and /e/). Coincidently, four RP diphthongs have been identified as diphthongs (/aɪ/, /ɔɪ/, /aʊ/, /eə/) but only at word medial position. Two diphthongs (/eə/ and /ɪə/) have behaved as merger (/eə/). Whereas, one diphthong has been articulated in three different forms; it may be uttered either as a diphthong (at word medial position as /ɔɪ/ and /ɔe/ at word final position) or as a triphthong (/vae/). Although, these segments are not part of the British inventory but they are autonomous phonetic segments of PakE.

Key Words: RP diphthongs, Pakistani English, auditory and acoustic analysis

1. Introduction

This research is done to deal with the conundrum which has being faced by non-native speech communities. It also demands standardized models and norms for solving internal variations among different "Englishes". Therefore, this study is based on the contrastive analysis of speech by identifying acoustic differences in the behavior of RP diphthongs in PakE. These acoustic variations occurred due to the nativeness effect of first language Urdu, which is the hypothesis of this research. For

confirming it, two experiments have been done. In first experiment, auditory analysis has identified the differences in vocalic segments of both varieties. In the second experiment, acoustical analysis has identified the physical changes in PakE. Results have proved the idiosyncratic behavior of RP diphthongs in PakE. Although there existed some similarities but may occurred coincidently. The results are based on the evidence therefore would be positive addition in the vocalic inventory of PakE. It will also acknowledge PakE as an independent variety among world Englishes.

It is also true that PakE falls under the British Standard by showing some differences. There are number of factors which cause language change and variation in Pakistan. The foremost reason might be learners' acquisition. As, L2 learners acquire English language by Pakistani (non-native English) teachers which directly effects the pronunciation of English language. But the present research is about the behavior of RP diphthongs. The pronunciation of RP diphthongs is the major controversial difference in PakE which has been identified. The present research has identified diverse acoustic behavior of RP diphthongs in PakE. It is also understood that every language has unique phonemic inventory which is different even within the dialects and accents of a language.

On realistic grounds, inter-languages have some similarities because they share same developmental orders (Hulya, 2009). Being Pakistani L2 learners, we people have been facing different socio-academic problems along with acoustic training of our vocal apparatus but remained unable to highlight them. As, we are living in a multilingual country where Urdu is the national language (Rehman D. T., 2006) and the mother tongue (Zia, 2011) among other 60 regional languages (Farooq, 2015). But English also enjoys the status of an official language (Rehman T., 2002). Therefore, English serves different roles in international communication, national identity, economical progress and access to modern technologies (Kavaliauskiene, 2009) (Mehboob, 2003).

On the other hand, Urdu is a largely spoken and comprehended language. Therefore, it directly or indirectly influences English Language Teaching and Learning (ELTL) in Pakistan. As, language is a living organism therefore, it accepts continuous changes and diversities (Amberg & Vause, n.d.). It has also been observed that there is a close relationship between language acquisition and language learning.

So, it would be right that language acquisition is the initiator of an utterance and learning is the monitor (Koucka, 2007). Therefore, in this research, data interpretation has been done by considering this relationship.

In Pakistan, English is a powerful medium of instruction. According to the education policy of Pakistan; it is a compulsory subject for all the learners in public and private sector (Lewis, Paul, Simons, & Fen, 2016). Consequently, it is self-evident for Pakistanis that English is the only key to success in every field of life. It would not be wrong if said that English learning has been stressed to struggle in the communication competition of the world (Romaine, 1994). Therefore, this study will prove to be beneficial for English language learners and teachers.

1.1. Research Questions

The hypothesis of the study is whether the prior knowledge of Urdu will affect Pakistani English or not? Therefore, this research will answer the following questions;

- a. Is there any RP diphthong in PakE? If yes,
- b. Is the acoustic behaviour of RP diphthongs different in PakE?

2. Literature Review

In Pakistan, this research would be first work for analyzing RP diphthongs based on the acoustic differences in PakE. This part will also discuss these differences and their reasons. Before starting the actual matter, the status of English is the most important point of discussion. As, the spread of English language is a debate; based on these questions: (i) is it the effect of linguicism or imperialism; (ii) English learning is an actually inner desire of people or (iii) it might be useful for knowing the cultural norms of people who speak it.

People who are in favor of imperialism argue that British or American English increases at greater extent in all over the world. They also argue that both Englishes bring Anglo-cultural norms with them. Therefore, learning English does not only limit with the language learning but also deals with adopting British and American cultural norms (Rehman D. T., 1999). They have fear that English will threaten their thinking, culture and language as well (Kirkpatrick, 2004).

On the other side, people have realized the need to learn English as an international language. Some people and institutions are interested in the importance

of English spreading for their own commercial and political benefits. For example, British Council is working with the purpose to build a mutual relationship among the people of UK and other countries (Sharifian, 2004). This mutual relationship ultimately becomes the cause for standardizing the local English as an individual variety.

Kachru (2005) says that local Englishes reflect local cultures and norms. Non-Anglo ways of thinking would receive attention by English language. He gives 'polymodel' instead of 'monomodel' for classifying and standardizing English varieties (as cited in Kirkpatrick, 2004). Different emerging Englishes express the cultural conceptualizations and national struggle of a specific language community. Even though, traditional SLA paradigms are identified variations as 'negative transfer' based on the so called 'native variety'. But in reality, these varieties must be evaluated on their own cultures. For example, Persian English must be judged under the banner of Persian cultural conceptualization rather than with American English. Since communicative strategies of speakers psychologically depend on their culture. No doubt, in second language learning, speakers' cognitive, cultural and social horizons expand but emotional experiences remain unfeasible. Therefore, the speakers of overlapping non-native varieties share mutual cultural and communicative conceptualizations (Ramanujan, 1990).

English is the global language and has come into contact with a number of different languages. Evidently, about eighty percent English communication has been taking place in non-native countries (Sharifian, 2004). Consequently, English has been under a continuous process of changing in different ways (Modern Englishes, 2012). The same is the purpose of this research to study PakE with reference to native language, Urdu which would deal in subsequent sections.

2.1. Effect of First Language on English Language Learning

Second Language Acquisition (SLA) along with the help of first language creates challenging situations for learners. But it has also been claimed that the prohibition of one language and authorization of another would produce nervousness and anxiety among learners (Amberg & Vause, n.d.). SLA is a systematic process where language specific phonological constraints add the flavor of native language (Mahmood, Hussain, & Mahmood, 2011) which is a normal language behavior.

In Pakistan, English is emerging and developing as a "must-have language" due to its significant role in different fields of life (Mahmood, et al., 2011). According to education policy of Pakistani Government, it is also required for bilingual means of education (Mahboob & Jain, 2016). Along with this, Higher Education Commission (HEC) has launched English Language Teaching Reforms (ELTR) program to revolutionize the existing teaching methodologies. Consequently, teachers' training would lead to achieve the required results because a passive policy without any practical implementation could not bring any change in reality (Mehboob, 2003).

In Pakistan, it has also been observed that English usage is not restricted to the educated people but even uneducated people are using English loan words due to the influence of media and class consciousness. But the process is going through a continuous make-up caused by the phonetic constraints of their native languages which ultimately cause multiple variations in pronunciation (Riaz, 2015).

In Pakistani English literature, "Urduised" words are directly influencing PakE by causing a number of lexical innovations. This vocabulary shows distinctive and indigenous cultural impact in using dynamic lexis of Pakistani culture. It also bridges the localization by representing an independent linguistic norm which makes PakE an independent variety among world Englishes (Ahmad & Ali , 2014). All these studies reported the nativeness effect of Pakistani first languages on Standard English which gives the way to an autonomous English variety.

2.2. Pakistani English (PakE)

Linguistic differences become an obvious reason for dialectal variations in PakE (Schneider, 2010). Actually, first language defines the regional dialects of English variety in a specific country. Pakistan is a multilingual country where more than 60 different languages are being spoken in different geographical areas (Farooq, 2016). In such country, borrowing complications would cause dialectal variations in English because speakers are more influenced with their first languages. Even though, people are living in same country but are language user of at least more than two different indigenous languages. Therefore, phonological variations occur due to; (i) complex language contact, (ii) social interaction, (iii) gender differences, (iv) educational variations, (v) geographical shifting, etc. (Mahboob & Szenes, 2010). PakE has identified in different perspectives such as; phonology, morphology, syntax,

and semantic. Phonologically, it is distinctive by having different consonantal and vocalic features (Khan, 2012). Urdu and Punjabi also have influenced PakE with vowel alternations and substitution (Hussain, Mahmood, & Mahmood, 2011). These variations have been briefly discussed here.

2.1.1. Vowel Alternation

Kachru (2005) claimed that Pakistani English speakers could not maintain the distinction between /e/ or /æ/, along with long /i:/ and a short /ɪ/ vowels. But these claims have been refused later (Bilal, Mahmood, & Saleem, 2011a) (Bilal, Mahmood, & Saleem, 2011b). According to another research, PakE speakers could not distinguish between /ə/ and /ɜ:/ vowels because there is no /ɜ:/ sound (Mahboob & Ahmar, 2004) in the phonetic inventory of Urdu/Punjabi (Hussain, et al., 2011), (Bilal, Mahmood, & Saleem, 2011c).

2.1.2. Full Vowel Articulation

PakE belongs to the outer circle Englishes where full vowel articulation is a shared tendency among different speech communities. There is no possibility of reduced vowel production even in unstressed articulation (Crystal 2003). Moreover, they would believe that English belongs to them as much as to anyone else (Deterding, 2010). This principle supports the present research as the language nativeness and affects the phonological or acoustic differences by showing alternative pronunciations. Alternative pronunciation would occur due to the change in phonetic inventory of the second language.

2.2. Phonetic Inventory

Every spoken language has its own phonetic inventory which is the combination of consonants, vowels, monophthongs, diphthongs and triphthongs (Roach, 2009) (Skandera & Burleigh, 2005). By considering the research scope, except consonants, all of these phonemic segments have been briefly introduced here.

2.2.1. Vowels

Phonetically vowels are produced without any constriction in oral tract. Phonologically, it occupies the central position in a syllable. In speech production, they are essential segments as the sound quality of a language is based on the intensity, loudness, pitch, and frequency of vowels. RP has twelve vowels while different accents might have different number of vowels. All English vowels are

voiced, oral and articulated with open oral tract along with the slight movement of lips and tongue (Roach, 2009).

2.2.2. Monophthong

Monophthong is a vowel sound but has no separate phonetic symbol therefore indicated by using vowel symbols. The sound of a monophthong is fixed from the start till the end of a vowel therefore is called "monophthonggos". A monophthong is different from a vowel by showing large segmental duration which may be equal to a diphthong. It has contrastive properties as compared with a diphthong or triphthong. The conversion of a monophthong into a diphthong and vice versa is a prominent feature of language change (Mahajan, 2014) and this process is called diphthongization (Kohnlein, n.d.).

2.2.3. Diphthongs

There seems no apparent consensus on the phonetic definition of diphthongs. According to some linguists, it has dual targets and transition period. Interestingly, onset must be considered a default element for the phonetic definition. But the transition period and offset position are always equally essential for the acoustic realizations. Diphthongs have no different phonetic ID therefore normally used as a combination of vowel symbols for transcription. RP has eight diphthongs. More exactly, they start with one vowel then the sound quality changes into another vowel with the gliding movement of tongue. These sequences are also called *vowel glides*, *gliding vowels*, or *diphthongs* [from Greek "diphthonggos" which means 'double sound']. They can be categorized into three groups: (i) *centering diphthongs* (ii) *closing diphthongs* and (iii) *opening diphthongs* (Lee, Potamianos, & Narayanan, 2014).

According to Roach (2009), English diphthongs are divided in following way:

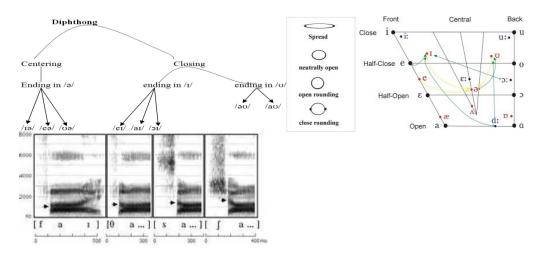


Figure 1: RP Diphthongs

Another categorization has divided them into descending, and ascending diphthongs. When the first vowel is longer and louder than second, it would be called *descending diphthong*. All English diphthongs are descending in manner. If the second vowel is more prominent than the first, it would be called *ascending diphthong* but this condition is very rare in English. Acoustically, diphthongs are characterized with the movement of formant frequencies of both vowels from onset to offset position. Especially the second formant frequency (F2) is more important for identification. The rate of change for F2 is always different for the transition period of each diphthong therefore proves a discriminating parameter for them (Lee et al., 2014).

2.2.4. Triphthongs

English also has archetypal vowel sequences which consist of three sounds known as triphthongs [derived from the Greek word "triphthonggos" means 'triple sound']. In RP, there are five triphthongs; /eɪə/, /aɪə/, /auə/, /ɔɪə/ and /əuə/. All triphthongs are consisted of closing diphthongs entailed by a schwa sound.

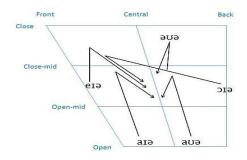


Figure 2: British English Triphthongs¹

Different researchers have described triphthongs in different ways. According to Peter Roach, they are most complex English sounds, difficult to pronounce and recognize. It is an uninterrupted glide from one vowel to second and second to the third (Roach, 2009). But their pronunciation is the major cause of difficulty for L2 learners. Secondly, segmental duration is very short except in conscious pronunciation. Thirdly, the middle vowel loses its phonetic features due to the influence of surrounding vowels. Fourthly, there is difficulty for the non-native speakers whether a triphthong has felt to comprise of one syllable or two (Wells, 2009).

Summing up the whole review of literature, English is the global language which is essentially required for growing in all fields of life. Therefore, it is being used by a large non-native population for individual as well as national excel. Consequently, non-native speakers add the flavor of their first languages consciously or unconsciously at different levels. Among them phonological variation is apparently visible in their speech. It also confirms that every language has its own phonetic inventory where vowels are most significant speech segments. As, the speech quality is based on the quality of vowels' frequency, intensity, pitch, loudness, etc. Diphthongs are important and complicated part of vocalic inventory. RP has eight diphthongs but literature review refused their presence in PakE. This present research has investigated the presence of RP diphthongs and their acoustic behavior in Pakistani English variety.

3. Methodology

The nature of this study is epistemological which is directly related with positivism as it has acquired the results by using the analytically scientific methodologies. So, the area of acoustic phonetics has been selected for contrastive

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¹ http://www.phonologythree.blogspot.com

analysis of PakE with reference to RP diphthongs. The purpose of the study is to investigate whether Urdu phonetically influences PakE or not. Therefore, by using convenience sampling method, thirty Pakistani speakers have been selected as research sample. Their speeches have been acoustically analyzed in PRAAT (Boersma & Weenink, n.d.) for finding out the possible acoustic variations. So, the list of words which is comprised of RP diphthongs has been selected to make text corpus (10 sentences) for recordings. Later, the speech has been recorded in an echoic chamber at the sampling rate of 48 KHz in PRAAT.

This speech corpus has been annotated. Each vocalic segment has been marked phonologically not phonetically by using Case Insensitive Speech Assessment Method of Phonetic Alphabets, CISAMPA (see appendix). Vocalic segments have been analyzed physically by measuring their segmental differences i.e. alternation, durations, formant frequencies, etc. Afterwards both speeches have been compared for identifying unique acoustic behavior of PakE.

Thirty Pakistani English speakers (12 males and 18 females whose ages vary from 25 to 30 years) have been selected for this research. According to the research requirement, all speakers are not professional vocalists but all of them are graduates. The purpose behind the selection of this group is their good understanding of English language. The other main reason is that a graduate person would be equally influenced and attached with his/her mother language as with the second language, English. Their speech has served for developing an annotated speech corpus. Later, this annotated speech corpus has been used as data for analyzing speech variations.

4. Data Analysis and Results

It is a comparative research to identify acoustic behavior of RP diphthongs in the speech of Pakistani speakers. But it is difficult to approach native English speakers therefore vocalic inventory of British English has been selected as a model for comparison. The whole analysis has been divided in to two steps; (i) auditory experimental methodology and (ii) acoustic experimental methodology.

4.1. Auditory Experimental Methodology

Auditory experimental methodology is based on the listening skills and comprehension of the linguists. The selected text has been asked to record by thirty

PakE speakers for verifying the hypothesis. The used text has eight diphthongs (10 sentences x 8 vocalic segments x 3 repetitions x 30 speakers = 7200 utterances). Every speaker has been asked to utter each word three times. Afterwards these recordings have been asked to listen by two linguists for identifying the gliding segments in each word. For this purpose, a checklist has already been constructed for counting number of syllables in a word as syllable count is a good cue (Bhatti & Mumtaz, 2016) for the identification of diphthongs.

In pilot testing, listening comprehension of the linguists has been checked prior for getting better results. Therefore, confusing words have been included in the test audio files. After taking the consensus, the actual experiment has been started. Diphthongs have been catered at initial, medial and final positions of words. Respondents have listened all utterances carefully by counting the number of syllables in each word. On the basis of their syllable count log-sheet, PakE shows idiosyncratic behavior of RP diphthongs. The initial results reported that there are four similar diphthongs (/aɪ/, /ɔɪ/, /aʊ/ and /eə/) but remaining four RP diphthongs have been articulated as monophthong (/e/, /o/), or triphthong (/oae/ which is not the part of RP diphthongs). The remaining word list shows syllabic alternation by showing segmental insertion therefore, not used further.

Table 1: The Checklist for Auditory Analysis

		Phonological	No. of	Identification	Insertion
		Transcription	Syllables		
1	Day, great	/e _I / → /e/	1	Monophthong	
2	Sure, January	/ʊə/ → /o/	1	Monophthong	
3	Close, know,	/əʊ/ → /o/	1	Monophthong	
4	Town, mountain	au	1	Diphthong	
5	Guide, Died	/aɪ/	1	Diphthong	
6	Parents, wear	/eə/	1	Diphthong	
7	Hear, appear	/Iə/ → /eə/	1	Diphthong	
8	Fire, tired	/aɪə/ → /aɪ/	1	Diphthong	
9	player, mayor	/eɪə/ → (eə)	1	Diphthong	
10	Voice, choice	/5I/	1	Diphthong	
	Boy, joy	/ɔɪ/ → /ɔe/	1	Diphthong	
		/ɔɪ/ → /ʊae/	1	Triphthong	
		,			
11	hour/our, power	/aʊə/ → (a.v.ə)	2		/v/ insertion
			2		
12	lower, widower	/əʊə/ > (ɔ.v.ə)			/v/ insertion
13	loyal, royal	/ɔɪə/ → (ɔjæ)	2		/j/ insertion

4.2. Acoustic Experiment Methodology

Afterwards, acoustic analysis has been done. The acoustic behavior of RP diphthongs reported that 8 diphthongs have been articulated differently in PakE. The spectral analysis shows that three RP diphthongs (/av/, /aɪ/, /eə/) articulated similarly by Pakistani speakers but only at word medial position. But /və/ and /əv/ diphthongs have been articulated as /o/ monophthong and the diphthong /eɪ/ has been altered with /e/ monophthong. The /ɪə/ diphthong has been articulated as /eə/ and behaves as merger. The /ɔɪ/ diphthong shows a very strange behavior in three different manners. As it has been similarly articulated as a diphthong at word medial position but it has been articulated as /ɔe/ or /vae/ at word final position.

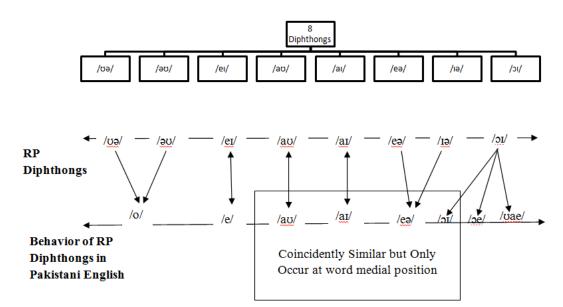


Figure 3: RP Diphthongs and their Acoustic Behavior in PakE

Segmental duration and formant frequencies have been analyzed both at stressed and unstressed conditions separately. Average values have been taken by enlisting their values among male and female Pakistani English speakers which have been enlisted in table. Moreover, minimum values have been observed in unstressed articulation while maximum values in stressed articulations. Firstly, vocalic segments have been selected or rejected on the bases of duration.

- 1. A monophthong is different from an ordinary vowel by the means of duration as it has more duration than an ordinary vowel (2.2.2.). This hypothesis also supports the segmental duration in the present study as well. For example, the average durational range for an unstressed vowel is between 100-120 milliseconds (ms) while a monophthong ranges from 150-170 ms. An average duration of a stressed vowel is 110-150 ms while a monophthong ranges from 200-220 ms.
- 2. All unstressed diphthongs have segmental duration around 300 milliseconds (or below) and stressed segments have 350 milliseconds (2.2.3.). This duration also supported in the past research for Pakistani Urdu diphthongs (Khurshid, Usman, & Javaid, 2003-2004) (Bhatti & Mumtaz, 2016).
- 3. Strangely, unstressed segmental duration of a triphthong has been observed equal to a diphthong i.e. around 300-350 milliseconds or below. According to literature review, in RP triphthongs, the middle vowel is confusing (2.2.4.) but

contrary to this, in the PakE, first short vowel is confusing than both of the other vowels.

Table 2: Vocalic Sequences and their Duration in PakE

	Diphthongs	Average of Unstressed Duration of Diphthongs (ms.)		Average of Stressed Duration of Diphthongs (ms.)	
		Males	Females	Males	Females
1	e1 → e	151	154	200	212
2	əυ → 0	139	170	164	210
3	aı	164	159	180	226
4	aυ	162	159	240	220
5	еә	176	150	227	220
6	oı → /oe/	223	220	330	324
7	$\sigma \rightarrow /\sigma ae/^2$	245	263	287	292

Formant frequencies of identified vocalic segments (i.e. two monophthongs, four diphthongs and one triphthong) have been manually measured in PRAAT. Therefore, first formant (F1) and second formant (F2) have been measured while remaining formants (i.e. F3, F4, F5) have been ignored as they are not much supportive like first two formants. A diphthong has been divided into three parts i.e. on glide, transition period and off glide (2.2.3.). Presently, transition period has been used for the acoustic identification. Three instances of every vocalic segment (10 sentences x 8 vocalic segments x 3 repetitions x 30 speakers = 7200 utterances) have been measured and their average values have been reported in the following table.

Table 3: Vocalic Segments and their Formant Frequencies in PakE

	Vocalic segments	Average Formant Values of Males' Diphthongs (ms.)		Average Formant Values of Females' Diphthongs (ms.)	
		F1	F2	F1	F2
1	aı	680	1502	593	1739
2	aυ	561	1098	713	1176
3	eə	546	1712	438	1864
4	or → /oe/	753	1453	779	1700
5	oι → /υae/	624	1298	676	1298

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²/vae/ is a suggested triphthong in Pakistani English variety.

Places and manners of articulation of four diphthongs and one triphthong of PakE have been displayed in the figure 5 by using the above given values.

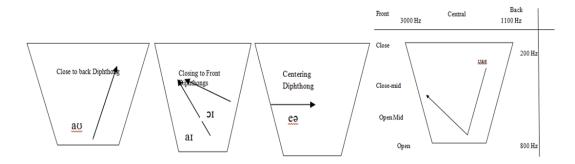


Figure 4: Places and Manners of Articulation of Vocalic Segments in Pakistani English

In Pakistan, Urdu is our national language but English also has been considered as an official language (2.1.). Obviously, English should be our second language but fortunately or unfortunately it has been considered more than the native languages. Therefore, in this study, the speech of Pakistani English speakers has been acoustically analyzed in PRAAT software and results show that there are number of differences in native British English and Pakistani English variety.

1. Pakistani speakers have articulated vocalic segment with segmental lengthening without creating vowel reduction. Therefore, 2 monophthongs have been articulated in place of diphthongs e.g. in articulating the word 'great' /e/ monophthong has been articulated by Pakistani speakers in place of /eɪ/ diphthong.

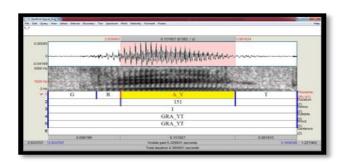


Figure 5: Monophthong in PakE

2. In the present study, only four diphthongs have been reported by using auditory method and also acoustically confirmed by the researcher.

- 3. But all these diphthongs have been identified at word medial and final positions only. The reasons might be; the nativeness effect of Urdu language and lexical stress.
- 4. Diphthongs are also replaced by the vocalic or consonantal segment (s) by increasing number of syllables.
- 5. A triphthong /oae/ has been articulated by Pakistani speakers in the words; boy, toy, etc. But in the traditional English phonetic inventory, these words have been transcribed with a diphthong /oɪ/.
- 6. Due to extra metrical rule, short vowel /I/ has been substituted with /e/ vowel at word final position as in the articulation of word July.
- 7. At word medial position /ai/ has been articulated by Pakistani English speakers. But word finally, it has been converted into /ai/ diphthong with long-long vowel combination. The reason might be its existence in Urdu inventory (Bhatti & Mumtaz, 2016) and extrametrical rule.

5. Conclusion

The present work has concluded the contrastive nature and acoustic differences in PakE. It has been concluded that native language, Urdu or Punjabi phonetically influences English speech of Pakistani L2 speakers. This influence effects the word syllabification, vowel duration and formant frequencies of the RP diphthongs. The spectral analysis confirms that four RP diphthongs (/ao/, /aɪ/, /eə/, /ɔɪ/) show similarly acoustic features in PakE but only at word medial level. But two diphthongs (i.e. /oə/ and /əo/) have been merged and articulated as /o/ monophthong. Similarly, /eɪ/ diphthong has been articulated as /eə/ and behaves as merger. The /ɔɪ/ diphthong may articulate in three different ways; (i) similarly articulated at word medial position but it has been articulated (ii) either as /ɔe/ diphthong or (iii) /oae/ triphthong at word final position. These results are based on the data collected from thirty speakers. PakE speakers have not articulated short vowels at word final position due to the extra metrical rule and nativeness effect of Urdu language. Consequently, we can say that PakE would become an independent variety by the addition of these vocalic segments.

6. Future Work and Recommendations

PakE is acoustically different from the phonetic inventory of British English. The study also proves to be helpful for Pakistani English language teachers and learners. It is based on a limited speech and narrow number of speakers. Therefore, following steps would be considered in future for further confirmation by increasing number of speakers and speech corpus. This would enhance and establish the phonetic inventory of PakE. In future, accent variation would be analyzed. The phonological rules for acknowledging the causes of variations in PakE would be discussed in future work.

7. Acknowledgement

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Appendix

IPA Symbols and CISAMPA of Short and Long Vowels which have been used to mark diphthongs in PakE

	IPA	CISAMPA
1	u:	U_U
2	0:	0_0
3	o:	0
4	a:	A_A
5	i:	I_I
6	e:	A_Y
7	æ:	A_E
8	3	A_E_H/A_Y_H ³
9	I	I
10	υ	U
11	Э	Α

Table 1: CISAMPA for PakE

Table 2: Diphthongs in British English

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Sr. #	English Words	IPA	CISAMPA
1	Day, afraid, great	еі	A_Y_I
2	Hair, parents, wear	еә	A_Y_A
3	Town, mountain, flower	aσ	A_A_U
4	July, decide, buy	aı	A_A_I
5	Boy, voice, joy	JI	0_I
6	Sure, January	υə	U_A
7	Close, know, moment	Ðΰ	A_U
8	Hear, here, appear	19	I_A

³ 3 medial vowels (i.e. /e/, /æ/ and /o/) have been suggested by the Oxford Urdu-English Dictionary, 2012. These vowels are shorter in length than the long vowels but larger than the short vowels in duration. As they have no IPA symbol therefore same symbols have used for the long and medial vowels. Therefore colon mark (:) has been used with the long vowels in order to create difference.

Gradient phonetic and categorical phonemic perception in adult language learning

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Models of second language acquisition predict learning outcome of adult foreign or second language learners. Out of those, two models namely, Perceptual Assimilation Model (PAM: Best, 1995, 1994) and Feature Model (FM: 1998, 2000) were considered in this study. The PAM classifies sounds of L2 into categories and predicts a directionality of difficulty for learners. The FM on the other hand, predicts that feature geometry of L1 is vital in perception of L2 sounds. The current study aims to test these predictions and determine which of the models is more suitable for Pakistani learners of English. A perception experiment was conducted with 8 adult Indian learners of English who were living in and around London at the time of experiment. The experiment aimed to test the participants' perception of English consonants [f ð θ 3 w v]. It contained an identification and a discrimination test. The results of identification test were used to confirm if the hypotheses of the current study were rightly developed in the light of predictions of the PAM or not. For confirmation of the hypotheses, the discrimination test was arranged. The results of the discrimination test partially confirm predictions of the PAM but reject those of the FM. The current study also concludes that by using a statistical perceptual overlapping method directionality of difficulty between such pairs of sounds which lie in the same category may be developed.

Key words: consonant, learning, L2, PAM, perception, Feature Model

1. Introduction and Background Literature

A large number of studies on second language acquisition demonstrates that L1 interferes in L2 acquisition (Best, 1994, 1995; Eckman, 1977, 1991; Lado, 1957). There is also vast literature available on innate ability of learners to acquire a language and the time period after which the same ability declines, diminishes or thoroughly terminates (Lenneberg, 1967; Patkowski, 1990; Scovel, 1988). Feature model (FM) addresses the question whether problems in adult L2 acquisition are due to inaccessibility of learners to Universal Grammar (UG) or it is because of interference of L1? The feature model was developed by Brown (1998, 2000). The model explains with empirical evidence the way L1 feature geometry influences L2 learning.

Perceptual assimilation model (PAM) by Best (1995) is another model of perception of new sounds of a language. Whereas the FM is based on phonological features, the PAM relies on acoustic cues for perception. Another difference between the two models is that the former mainly classifies new sounds into two categories, namely those which can be easily perceived and acquired by learners but the former classifies new sounds into several different categories. The FM only categorically divides sounds into easy and difficult at large scale, but PAM provides a directionality of difficulty for listeners. In the following section phonetic perception of participants of this study has been discussed and analyzed in the light of these two models. The major difference between phonetic and phonological perception test is that in the

former the abstract meaningless phonetic material is used as stimuli but in the latter meaningful words of the target language are used as stimuli.

According to the feature model (FM), children are born with innate ability to acquire language. For the FM, the UG is actually the innate ability of learners to perceive and acquire a language. A major difference between L1 and L2 acquisition is that L1 is acquired when the ability of learners to perceive phonetic material is at its peak whereas with the passage of initial some months that natural ability to perceive sounds universally diminishes because learners start acquiring phonology of L1 during this time (Werker & Tees, 1984). Thus, after the age of approximately nine months, the universal ability of babies to perceive phonetic nature of sounds diminishes but at the same time, ability to perceive phonemes of the L1 increases. Thus, after acquisition of L1, all linguistic material is filtered through the funnel of the L1. For Brown, it is the L1 feature geometry which filters new L2 sounds. If listeners receive a new pair of similar sounds of an L2 which does not have corresponding phonemes in the L1, they consider such a pair as new sounds and resort to the UG for acquisition of these sounds. According to Brown, since learners have accessibility to the UG throughout life, they can acquire such a pair of sounds. However, the sound contrasts which L2 learners have to acquire may be divided into two types. First, if a pair of new sounds is differentiated on account of a feature which is active in the L1 feature geometry, the listeners will perceive a difference in the contrast but if the same feature is not active in the L1 feature geometry, the sounds are assimilated to the closest L1 sounds because the learners will not be able to perceive the difference in the contrast and will consider them as the same sounds.

Thus, learner's L1 either impedes or facilitates the process of acquisition of a second language. In the literature, it is called negative or positive transfer respectively. The feature model explains how this process occurs. According to the model, problems in acquisition of a second language are due to defective input or learning mechanism but not because of inaccessibility of learners to the UG. The presence of L1 at the time of acquisition of L2 is one of the biggest factors which influence L2 acquisition. Different theories of first language interference have been given in the past which illustrate the mechanism which is adopted in the interference. For example, Transfer Hypothesis (Whote, 1987) claims that learners transfer parameters of grammar of L1 to L2 but the Fundamental hypothesis (Bley-Vroman, 1990) claims that only those aspects of L2 which are manifested in L1 are acquired easily. Both these echo contrastive analysis hypothesis (Lado, 1957).

Brown (1998) demonstrates that the feature geometry of L1 changes the input that the learners intake. Thus, she differentiates between *input* and *intake*. Input is what is available to a learner but intake is what a learner perceives or in the words of Brown, what the learners' feature geometry allows him/her to perceive. According to Brown, for accurate acquisition, besides accessibility to the UG, proper intake is also required. If a learner is sensitive to a specific feature of L2 sounds, s/he perceives these sounds accurately but if the learner is insensitive to a specific feature which

contrasts two new L2 sounds, s/he cannot perceive those sounds accurately. According to Brown, a learner is only sensitive to a new contrast if the feature required to differentiate the contrast is already active in the L1. In that case, a new sound pair can be acquired but if the required feature which discriminates between the phonemes of the L2 target pair is not active in the L1 feature geometry, the learners remain insensitive to the contrast and perceptually assimilate the two new sounds. Brown provides empirical evidence from her studies with Japanese, Chinese and Korean learners that they can perceive only those new contrasts of English for which the required feature is active in the L1; but those new contrasts which are differentiated on the basis of the features which are inactive in the L1, could not be perceived by the participants of her experiments accurately.

In this way, the FM is the first model which very scientifically explains how L1 facilitates or impedes L2 acquisition. It very clearly divides new L2 sounds into those contrasts which can be easily perceived and acquired by L2 learners and those contrasts which cannot be perceived accurately by L2 learners. Those sounds which cannot be perceived by L2 learners also cannot be acquired by them properly. Thus, inability of adult learners to acquire a specific contrast is because of improper input but not because of inaccessibility to the UG. In this way, the feature model categorizes new L2 sounds into those which are expected to be easier and those which are expected to be difficult to learn.

One of the major possible objections to the FM is that it provides a bigger generalization about directionality of difficulty faced by learners. It categorically divides L2 phonemes into easy and difficult on account of the L1 of learners. It does not account for gradient difficulties between new phonemes. There may be sound pairs which all are differentiated on the basis of phonological features which are (in) active in the L1. For such situations, the FM does not provide a directionality of difficulty. Another objection against the FM is that it is only based on experiments conducted by Brown herself (Larson-Hall, 2004). It is only developed on account of the experiments conducted by Brown herself with only speakers of some East Asian languages. It still lacks independent empirical evidence from learners of different languages of the world.

Perceptual Assimilation Model (PAM) is another model of second language acquisition which claims that naive listeners (Best, 1994, 1995) and adult L2 learners (Best & Tyler, 2007) perceive new sounds in terms of L1 phonetic categories. If they perceive two new L2 sounds as correspondent of two different L1 sounds, they can easily discriminate such a pair of new L2 sounds. But if they perceive two L2 sounds as equally good or poor exemplar of a single L1 sound, they find it extremely difficult to discriminate such a pair of L2 sounds. The former are called Two-Category (TC) type and the latter Single-Category (SC) type of sounds in the PAM. In some contexts, there is one sound in the L1 corresponding to two L2 sounds but one of these is perceived as a poor and the second a good exemplar of the corresponding L1 sound. Such a pair of sound is called Category-Goodness (CG) type of sound pair in

the PAM. According to the directionality of difficulty developed by the PAM, TC type of sounds are the easiest and the SC type are the most difficult to perceive for naive L2 learners. CG type of sounds lie in between TC and SC type of sound pairs in terms of difficulty. This is directionality of learning of new L2 sound pairs developed by the PAM.

If one of a pair of L2 sounds is considered by the listeners corresponding to an L1 sound but another sound of the pair is not perceived as an exemplar of any of the L1 sounds, such a pair of sounds is called Categorized-Uncategorized (CU) type of sound pair. Best, predicts that on account of correspondence between one of the pair of L2 sounds with one of the L1 sounds, the discrimination between CU type of sounds may be easier. However, the difficulty or ease of discrimination also depends on how distant the two L2 sounds are from each other. There may be a pair of L2 sounds which are considered to lie out of the acoustic space of L1 phonemic inventory. Such a pair of sounds is called Uncategorized-Uncategorized (UU) type of sounds. Ease or difficulty of discrimination between such sounds depends on the phonetic distance between such sounds. However, according to the PAM, CU type of sounds are easier to discriminate than UU type of sounds. All other sounds are considered Non-assimilable (NA) sounds which according to the PAM are considered as non-linguistic or non-speech sounds. PAM does not predict about such sounds.

One of the major problems with the PAM and other models of second language acquisition is that they do not develop any scientific measure to calculate perceptual distance between two sounds (Larson-Hall, 2004). Levy (2009) attempts to solve this problem by providing a method which she calls cross-linguistic overlap method of discrimination. According to Levy, ability to discriminate new L2 sounds is in inverse correlation with the perceptual overlapping between the L2 and the corresponding L1 sounds. The more an L2 sound overlaps with the corresponding L1 sound, the more difficulty an L2 learner is expected to face in its discrimination from another sound which also overlaps with the same L1 sound. For example, if Pakistani learners perceive English [v] and [w] both overlapping with the corresponding L1 sound which is normally a labio-dental approximant, they may feel more difficulty in discrimination of English [v] and [w] consonants. This is already predicted by the PAM as the most difficult pair on account of being the single category type of sounds. However, Levy devises a statistical method to measure the level of overlap and difficulty. For example, if a group of L2 successfully discriminate between English [v] and the corresponding labio-dental approximant in only 20% of the trials and in the remaining 80% of the trials, they perceptually assimilate both sounds, and the same group of participants perceptually assimilate English [w] with the corresponding L1 sound in 70% of the trials, it means there is 70% (the lesser of the two overlaps) probability that these learners will perceptually assimilate English [v] and [w] and there is only 30% probability that they may discriminate English [v] from [w]. However, in two category type of sounds, if learners have overlapping of two new L2 sounds with the corresponding two L1 sounds, they may easily discriminate such a

pair of L2 sounds. The current study aims to test these predictions with reference to acquisition of English consonants by Hindi learners.

2. Research Methodology

A group of 8 Indians living in and around London were selected for this study. Half of them were males and half females. All of them were from India (Delhi) and speak Hindi as their mother tongue. Their mean age was 23.75 (standard deviation=3.51) years. At the time of the experiment, they had stayed in the United Kingdom for 11.62 (standard deviation= 9.84) months. They claimed to listen to native English for 6-7 hours daily in average. All participants had arrived in the UK after the mean age of 22.50 (standard deviation= 1.41) years.

The stimuli for the perception test were recorded in the voice of a female native speaker of English aged 28. All target consonants were recorded in VCV format with C as the target consonant and V as low vowel i.e. [asa, awa, ava] etc. In identification test, each stimulus was played to the participants three times in random order and they were asked to identify which consonant of English they had heard. In the discrimination test, a target consonants flanked by low vowels [a] in VCV shape (e.g. [ava] etc.) was played immediately followed by two closer set of stimuli and the participants were asked to determine if the target stimulus was the same as the first or second or neither of the two later consonants. An example is quoted below to illustrate the whole process;

[awa] [ava],
$$[a\theta a]$$

The participants were asked to note if the consonant in the primary stimulus was the same as the first or the second consonant of the two later pair of sounds. They were asked to write 1) if the target consonant ([w] in the above example) was the same as the first ([v] in the above example) or 2) if they considered that the primary target sound was the same as the second ($[\theta]$ in case of the above example) of the later two stimuli. They were asked to write zero if neither of the later two sounds was the same as the primary target. (See the whole list and the responses of the participants in Appendix-B). The participants wrote their answers on a given sheet of paper. In this way, two possible pairs were tested in each trial. For example, in the above case, the discrimination of the participants for [w v] and [w θ] pairs was tested.

3. Presentation of results

The results of identification and discrimination tasks are presented in the following sub-sections. First, the results of identification task are presented followed by those of the discrimination task.

3.1. Identification test results

In this section, results of identification and discrimination task are given. In the identification test, VCV kind of stimuli carrying consonants of English on C position was played and the participants were asked to identify the consonant between two

vowels. Each stimulus was played three times randomly. Therefore, a total of 24 (8 participants*3repetitions) responses were obtained for each consonant by the participants. The results of identification test are given in table 1.

The consonants [t] dz f s z] were included in the test as control sounds. These consonants exist in the phonemic inventory of Hindi, the L1 of the participants (Shapiro, 2007). Therefore, these consonants were not test sounds. The excellent results (87%-100%) for the control sounds confirm that the methodology used for the experiment is not defective. The results show that the participants of both groups are equally poor in identification of English dental fricatives $[\theta \ \delta]$, approximant [w] and alveo-palatal fricative [z] and it is good in perception of [v]. A non-parametric analysis run on the six target sounds confirms that the difference between sounds is strongly significant (Chi square= 19,727, p=.001).

Table 1: Identification test results

Sounds	Correct responses	Correct Percentage	Incorrect responses
dз	23	95.83	[k]=1
tſ	23	95.83	[k]=1
Ð	0	0	Cor= 7[z d], Lab= 17 [v w]
F	21	87.5	[s]=3
3	4	16.67	Cor=19 [z j dʒ], [w]=1
S	24	100	
W	11	45.83	[v]=13
J	16	66.67	z=04, dz=04
V	17	70.83	w=7
Θ	1	4.167	s=17, f=6
Z	23	95.83	dʒ=1

3.2. Discrimination test results

In the discrimination test, one sound was tested against two sounds. We had a total of 14 sets of stimuli; thus, participants' discrimination of a total of 28 pairs were obtained. A summary of the discrimination test results is given in table 2 below.

Table 2: Discrimination test results

S. No.	Sound Pair	Accuracy (%)	S. No.	Sound Pair	Accuracy (%)
1	[ʧ] [z]	100	15	[ʧ] [z]	100
2	[s][z]	100	16	[s][z]	100
3	[s] [z]	87.5	17	[z] [ð]	100
4	$[s][\theta]$	62.5	18	[3] [j]	100
5	[z] [ð]	100	19	[43] [3]	100
6	[v] [z]	87.5	20	[j] [ʤ]	100
7	[v] [ð]	62.5	21	[s] [z]	87.5
8	[ð] [w]	87.5	22	[v] [z]	87.5
9	[ʒ] [ð]	62.5	23	[ð] [v]	87.5
10	[f] [θ]	37.5	24	[s] [θ]	62.5
11	[ʒ] [j]	100	25	[v] [ð]	62.5
12	[w] [v]	62.5	26	[3] [ð]	62.5
13	[ʤ] [ʒ]	100	27	[w] [v]	62.5
14	[j] [ʤ]	100	28	[f] [θ]	37.5

The results highlighted bold are those of control sounds because these sounds exist in the phonemic inventory of Hindi. These consonants were not part of the set of target sounds. Excellent results for the control sounds confirm the reliability of the research methodology used in this experiment. Another important thing in the above result is that in most of the sound pairs, similar results have been obtained in repetitions. It also increases reliability of the experiment. The above table shows that the discrimination of the participants is extremely poor for [f θ] consonant pair. Most of the pairs were tested twice or thrice. These results are discussed in the following section.

4. Discussion and analysis

This section is divided into two parts. The first part is based on analysis of the results of identification test. The analysis shows that although the identification of the participants is not according to the hypotheses, but the hypotheses of the study were accurately developed in light of the predictions of PAM. The second part is based on discussion about the results obtained in the discrimination test. In this sub-section, the main discussion is on whether the findings of this study support the perceptual assimilation model or not.

4.1. Accuracy in development of hypotheses

Two tasks (identification and discrimination) were part of this experiment. The hypotheses were developed on the basis of predictions of the perceptual assimilation

model. It was expected that perception of the participants would be poorer for [v] and [w] consonants compared with the other consonants. Identification test results are reflected in the following graph in percentage. The following graph reflects accuracy of participants in identification of only six target consonants. The results for control consonants are not included.

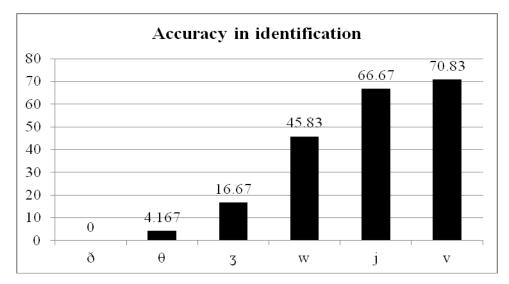


Figure 1: Identification test result (%age)

Since the perceptual assimilation model predicts poor perception for single category type of sounds and [v w] consonants were considered as single category type of consonants for the participants, it was hypothesized that participants will show poorer performance in perception of [v w] consonants. These results do not verify the hypotheses of this study. However, we must keep in mind that predictions of the perceptual assimilation model are mainly about discrimination ability of listeners. Therefore, the hypotheses of this study may be finally accepted or rejected only on the basis of discrimination test. The results of identification test can only be used to supplement the findings. Thus, we focus our attention to the discrimination test results. However, from the nature of errors committed by the participants, we can have an idea of perceptual mapping of the participants for those sounds which they cannot identify accurately. On the basis of the nature of these errors we can determine which of the target consonants lie in which category.

The results in column 4 of table 1 above show that dental fricative [ð] is perceived by the participants either as a labial or a coronal sound. Thus it may be perceived either as [v] or [z] most probably. However, sounds identical to [v] and [z] already exist in the phonemic inventory of Hindi. Thus, in [v ð] and [z ð] sound pairs of English, one of the sounds will be ideal exemplar and the other one a poor exemplar of the L1

sounds. In this way, these sound pairs make a category goodness (CG) type of sounds for Hindi speakers. Exactly in the same way, [s θ] and [f θ] sound pairs are also CG type of sounds for these learners.

Similarly, alveo-palatal fricative [3] is perceived as a coronal fricative in most of the trials. But such coronal sounds as [j z] already exist in the phonemic inventory of Hindi. In this way, [j 3] sound pair is also a CG type of sound pair by these participants. English [v] is misperceived as [w] and [w] as [v] by the participants of this study. But for both these sounds of English, Hindi has one corresponding sound in its phonemic inventory. In this way, [v w] sound pair is a single category (SC) type of sounds for these participants. Thus the errors committed by the participants in the identification test confirm that the categorization of sounds that we assumed on the basis of comparison of phonemic inventories of English and Hindi are correct although the perception of these sounds by the participants is not according to the expectations developed on account of predictions of the PAM. Since the predictions of the PAM are mainly about discrimination of sound pairs, we analyze the results of discrimination test to verify the predictions of the PAM in the following lines.

4.2. Testing of hypotheses

The results of discrimination task are summarized in table 2 and 3. Table 3 summarized results of repetitions in percentage. It also presents list of features involved in a sound pair and categorization of sounds according to the PAM. The features highlighted bold are inactive in the L1 (Hindi) of the participants. We can analyze these results in the light of PAM as well as FM. First we analyze the results in the light of predictions of the PAM. According to the PAM, [v w] sound pair is a single category (SC) type which is predicted to be the most difficult in the PAM. According to Flege (1995), it is almost impossible to find exactly identical consonants in two different languages. It is because there is always some phonetic difference between two identical sounds of two different languages. From this point of view, the consonants which exist in both Hindi and English (which were included as control sounds) may also be considered two category (TC) type of consonants. According to the PAM, TC type of sounds are the easiest to discriminate. The following table shows that all TC type of sounds are perceived most accurately by the participants in the discrimination task.

Another prediction of the PAM is that SC type of sound pairs are the most difficult to discriminate. In the current experiment, [v w] sound pair makes a SC type of sound

pair. But the results show that the participants did not perform the worst in discrimination of [v w]. They rather performed worst in discrimination of [f] from [θ]. Thus we can conclude that the predictions of the PAM are partially verified in this experiment. The following directionality of difficulty is predicted in the PAM;

About uncategorized sounds, the PAM predicts the following directionality of difficulty;

which means two uncategorized sounds are more difficult to discriminate than a sound pair which has one categorized and another uncategorized sound. However, PAM does not predict any directionality of difficulty which includes both above types. The results of the discrimination task are summarized in the following table. Column 4 of the table also includes the features involved in the sound pair. The features which are inactive in the L1 of the participants (Hindi) are highlighted bold. The above results show that for almost all TC types of sounds participants have shown excellent results. The performance of the participants in discrimination of UC and UU types of sounds is also according to the prediction UU > UC. Thus two of the predictions of the PAM are verified. According to the findings of this study UC sounds are easier than UU type of sounds to perceive and TC sounds are easier than SC type of sounds to perceive. The results of the current experiment also confirm these predictions.

Table 3: Discrimination task results

S. No.	Stimuli	Accuracy (%)	Features involved	Type
1	[ʧ] [z]	100, 100	voice, distributed	TC
2	[s][z]	100, 87.5, 100, 87.5	Voice	TC
3	[s] [θ]	62.5, 62.5	distributed, strident	CG
4	[z] [ð]	100, 100	distributed, strident	UC
5	[v] [z]	87.5, 87.5	PLACE	TC
6	[v] [ð]	62.5, 87.5, 62.5	PLACE	CG
7	[ð] [w]	87.5	PLACE, round	UC
8	[3] [ð]	62.5, 62.5	anterior, strident	UU
9	[f] [θ]	37.5, 37.5	PLACE	CG
10	[ʒ] [j]	100, 100	sonorant, strident	UC
11	[w] [v]	62.5, 62.5	round, sonorant	SC
12	[ʤ] [ʒ]	100, 100	continuant, anterior	CU
13	[j] [ʤ]	100, 100	continuant, anterior	TC

However, the results for CG type of sound pairs are not in accordance with the predictions of the PAM. The PAM predicts CG type of sounds easier than SC but difficult than TC type of sound pairs. The above results show that some CG type of sounds proved to be easier and others difficult than TC and SC type of sounds. Actually, three CG type of sound pairs namely [s θ], [f θ] and [v δ] were part of this study. In the first two pairs, one sound in each pair, namely [s] and [f], exists in the phonemic inventory of Hindi whereas the second sound does not exist in Hindi but the listeners may perceive $[\theta]$ either as [s] or [f]. In other words, Hindi f may be good exemplar of English /f/ but poor exemplar of English [θ]. Similarly, Hindi /s/ may be a good exemplar of English /s/ but a poor exemplar of English $[\theta]$. Similar is the case for [v \delta]. One of the objectives of this study was to determine a within category directionality of difficulty for learners. As pointed out in the literature review section, such a directionality is missing from the PAM and FM. Therefore, three pairs of CG type of consonants were selected in the current experiment. The results given in table 3 show that the level of difficulty in discrimination of these sound pairs for the participants is as under;

$$[f \theta] > [s \theta] > [v \delta]$$

It means $[f\,\theta]$ pair of consonants is the most difficult and $[v\,\delta]$ the least difficult with $[s\,\theta]$ pair lying in between the two on the difficulty scale. English $[\theta]$ is a coronal but [f] is a labial but both have similar acoustic cues (Wester, Gilbers, & Lowie, 2007). On the other hand, English [s] and $[\theta]$ are both coronal but have relatively different acoustic cues (Simon, 2009). In other words, English $[\theta]$ is more similar to [s] in terms of feature geometry because both have coronal place but $[\theta]$ is more similar to [f] acoustically because both have similar acoustic signals. The results obtained in the discrimination test confirm that acoustic signals have more effective role in perception than phonological features. That is why $[f\,\theta]$ sound pair is difficult than $[s\,\theta]$ pair in discrimination. However, phonological features also have their role in perception. This is confirmed from the results obtained in $[v\,\delta]$. Both consonants in this pair have dissimilar acoustic signals and different phonological features. Therefore, in discrimination of these consonants, the participants performed relatively better than the other two sound pairs.

These findings also support the ideas of Levy who claims that perceptual difficulty is directly proportional to overlapping of the consonants. Flege (1995) also demonstrates

the same by claiming that learning of an L2 sound is in proportion to perceptual distance between the L2 sound and the corresponding L1 sound. The more dissimilar a sound is from the other closer sound, the easier it is for a learner to perceive and acquire it. Since Levy provides a statistical measure to calculate overlapping or similarity between two sounds, a meaningful directionality of difficulty for L2 learners may be developed if we calculate perceptual distance between two consonants and then predict expected difficulty for learners in perception of those sounds. Since a statistical calculation takes into account minor gradient difference between two cases, the level of difficulty can be accurately measured even between two sound pairs which lie in the same type of sounds. Thus, by joint application of Levy's statistical perceptual overlap method and PAM's predictions, we can develop meaningful and scientific generalizations about a class of L2 learners.

Now we analyze these results in the light of the predictions of the feature model. The feature model predicts that if a feature which differentiates between two sounds is active in the L1 of a group of learners, the new sound pair will be easier to perceive and acquire but on the contrary if the relevant feature is not active in the L1 feature geometry of a group of learners, the learners will not be able to acquire such a sound contrast. The FM gives a big categorical generalization about ability of learners to perceive and acquire new sound pairs. It simply predicts either a sound pair will be acquired or not by learners. In column 4 of table 3, the list of relevant features is also given against each sound pair which differentiates between the two sounds given in column 2. The features which are not active in the L1 (Hindi) of the participants of this study are highlighted in bold. Others are active in Hindi language. According to the predictions of the FM, only [3 j] and [v w] sound pair should be difficult for these learners but all other pairs of stimuli should be easier for these participants because, except for these two sound pairs, in each sound pair given in the list of stimuli, there is at least one feature which differentiates between the target sounds and is also active in the L1 of these participants. However, the results are quite different from what FM predicts. The participants showed 100% accurately in discrimination of [3 j] sound pair and 62.5% accuracy for [v w] contrast. On the other hand they showed only 37.5% accuracy in discrimination of [f θ] sound pair which according to the FM they should easily discriminate because one of the sound pair is coronal by place and the other is labial and this contrast is already active in Hindi language. The FM would also predict that these participants can easily acquire [s θ] contrast because the feature

[distributed] which differentiates between these two consonants is already active in Hindi. These results demonstrate that the feature model is not suitable for these learners.

5. Summary and Conclusion

The current study aimed to test the predictions of the perceptual assimilation model. It also attempted to fill the gaps found in the Perceptual Assimilation Model. Another aim of this study was to see which of the two models namely PAM and FM has stronger predictability about L2 learners. For this purpose, an identification and discrimination test was conducted with a group of 8 adult learners of English who were living in and around London. They all speak Hindi as L1. The identification test results were not according to the predictions of PAM or FM but these results confirm that the hypotheses of this study had been developed scientifically in the light of predictions of the perceptual assimilation model. For testing the hypotheses, a discrimination test was arranged. The results of the test partially confirm two predictions of the perceptual assimilation model, namely, TC type of sounds are easier than SC type of sounds and UC type of sounds are easier than UU type of sounds for discrimination. However, the prediction of the PAM that SC type of sounds are more difficult than CG type of consonants could not be verified.

The current results also provide a clue as how to measure the difficulty of learners. According to the findings of this study, phonetic cues play more effective role than phonological features in perception of adult learners. The current results also suggest that by applying Levy's statistical perceptual overlapping method, we can determine level of difficulty for sound pairs which according to the PAM lie in the same category. The current findings thoroughly reject the predictions of the feature model.

Appendix A: Actual responses of the participants in discrimination test

Stimuli				Participants' responses							
S. No.	Focus	option 1	Option 2	P1	P2	P3	P4	P5	P6	P7	P8
1	[atfa]	[atfa]	[aza]	1	1	1	1	1	1	1	1
2	[atfa]	[aza]	[asa]	0	0	0	0	0	0	0	2
3	[asaa]	[aza]	[aja]	0	0	0	0	0	0	0	1
4	[asa]	[ava]	[aθa]	2	2	2	0	0	0	1	0
5	[aza]	[atfa]	[aða]	0	0	0	0	0	0	1	1
6	[ava]	[aza]	[aja]	0	0	0	0	0	0	1	0
7	[ava]	[atfa]	[aða]	0	0	2	2	0	0	0	2
8	[aða]	[atfa]	[aawaa]	0	0	0	0	0	0	0	2
9	[aʒa]	[atfa]	[aða]	2	0	0	2	0	0	0	2
10	[afa]	[aða]	[aθa]	0	2	0	2	2	2	1	2
11	[aʒa]	[atfa]	[aja]	2	0	2	0	0	0	0	0
12	[awa]	[ava]	[aθa]	1	0	1	0	0	0	0	1
13	[awa]	[adza]	[aʒa]	0	0	0	0	0	0	0	0
14	[awa]	[aja]	[adʒa]	0	0	0	0	0	0	0	0

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