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A PHONETIC STUDY OF THE SEGMENTAL FEATURES AND WORD ACCENT OF ENGLISH SPOKEN BY ARABIC STUDENTS IN DOHA QATAR

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Introduction:

The concept of communication is extremely diverse and broad in scope. Mainly, it is the sharing of understanding between two or more persons. Or, as Keith Davis puts it, "it is a process of passing information and understanding form one person to another". (as cited in Rai 2001:2) The signals used for human communication are generally of two different types - spoken or written. "One of the chief characteristics of the human beings is his ability to communicate to his fellow human beings complicated messages concerning every aspect of his activity"(Gimson 1980 :1)

The medium of speech is more important than the medium of writing, because, firstly, speech comes first in the history of mankind. Secondly, it is used more often than the medium of writing as it is an easier and faster medium of communication. Lastly, written English is often inadequate and a misleading representation of the spoken language of today. The communicative role of spoken language becomes evident when one considers its nature and mode of production. It has been rightly emphasized that language is essentially 'speech' - a meaningful sequence of sound pattern that has significance for both speaker and hearer.
Importance of Word-Accent in English

O'Connor has correctly pointed out that in English, accent is a significant factor since it is an essential part of the phonological structure of the word; words become unrecognizable if the accent is wrongly placed. (O'Connor, J.D.,Phonetics (Great Britain,1973), p.194) That is why English words consisting of two or more syllables are marked with appropriate accent in an English dictionary. So word-accent must be properly placed if reliable communication is to take place. Accent has linguistic importance in English. The function of a number of disyllabic words changes with a change in the accentual pattern. In other words the accentual pattern depends on whether the word is used as a noun, or a verb or an adjective. If these disyllabic words are used as adjectives or nouns, the accent is placed on the first syllable and if the words function as verbs, they receive the accent on the second syllable. Researcher is giving some examples as follows:

'absent (adjective) ab'sent (verb)
'produce (noun) pro'duce (verb)
'record (noun) re'cord(verb)

It may be noted that not all disyllabic words which are used as nouns and verbs follow such a shift in the accented syllable.
Researcher gives some examples:

Words like' limit', 'mis take, and 'remark' receive the accent on the same syllable whether they are used as nouns or as verbs.

"English has stress-timed "rhythm." (Abercrombie, D., Elements of General Phonetics (Edinburgh, 1967), p.97) In other words in English speech, stressed syllables occur at regular intervals of time. That is, stressed syllables are isochronous and this isochronous nature of the stressed syllables gives English its characteristic rhythm. So, accent plays an important role in giving English its unique rhythm. In the words of Corrine Adams, "Accent is fundamental to the phenomenon of speech rhythm in English." (Corrine Adams, English Speech Rhythm and the Foreign Learner (The Hague, 1979 p.v)

Need for the study:

India, following a program of rapid liberalization and industrialization in the early nineties and later, the government of India signed MoUs (Memorandum of Understanding) with several Gulf Countries (GCC) whom they wooed with aid, scholarships in education, loans, and mutual treaties in business. Of concern to this study is the momentous decision of Indian government to invite students from GCC countries to pursue higher education in universities in India. The arrival of Arabians from several Anglo-phone countries in particular and Arabians in general meant that teachers of English and other subjects had to make extra effort to understand the English used by foreigners and adjust their own to meet the needs of learners. This study was occasioned by the desperate necessity to alleviate the miscommunication and misunderstanding that often result from wrongly pronounced words and incorrectly stressed sentences by Arabic Students. Several Arabic students face problems of the linguistic kind and are viewed as ignorant, rude and stupid since they appear unable to use words using the right tone or rhythm. This is the cause for concern for teachers who teach them, colleagues who interact with them and peers who try hard to understand them. This study will undertake with the specific aim of recording and analyzing those features of spoken language that will seen as problem areas for Arabians. The study was carried out in the hope that the results will allow for a better understanding of what may be done to make the teaching-learning process meaningful and productive.

Literary reviews:

Christopher Bergmann (2016) L2 immersion causes non-native-like L1 pronunciation in German attriters.According to Flege′s Speech Learning Model, the speech sounds of a bilingual's languages are contained in one common phonological space. This predicts bidirectional influence on the articulation of these speech sounds. We investigated

the influence of a late-learned second language (L2) on the first language (L1) in a group of German L1 attriters in Anglophone North America (i.e., long-term emigrants in L2 immersion). These speakers were compared to a control group of monolingual German L1 speakers in two analyses: First, L1 speech samples of both groups were rated for native-likeness. Attriters sounded less native-like to raters, with 40% of the attriters rated below the monolingual range. Native-likeness was negatively associated with length of residence abroad and positively associated with L1 use. Second, formant analyses on four speech sounds of German—/aː/, /ɛ/, /ɔ/ and /l/—were conducted for attriters and controls. For these analyses, two attriter subgroups were formed: One with speakers who sounded native-like to raters and one with speakers who did not. It was hypothesised that the formants in both groups would shift in the direction of similar L2 speech sounds and that the shift would be stronger in non-native-like attriters. The first hypothesis was partly confirmed: At least one attriter group differed from the control group on one formant of /aː/ and /l/. These differences were consistent with predictions based on the L2. The second hypothesis was not confirmed: There was no evidence that the formants of the non-native-like attriters deviated more strongly from the monolingual baseline than those of the native-like attriters. Additionally, the formant values and the ratings were found to be only weakly associated, suggesting a different source of the perceptibly non-native-like pronunciation in some attriters.

Doris Mücke (2017), Mechanisms of regulation in speech:

Linguistic structure and physical control system. Speech variation is a naturally-induced phenomenon in human speech communication which can be attributed to the inevitably multifaceted nature of interactions between various higher-order linguistic and lower-order physiological factors. Speech is dynamic, and it is assumed that there are regulation mechanisms behind these complex interactions of structural, contextual and phonetic cues leading to an overwhelming variety of gradient phenomena in the speakers' linguistic behaviour.

Recent years have increasingly witnessed the extensive development of dynamical theories which attempt to capture mechanisms of regulation that underlie speech production and perception in a unified way. In this introductory paper, we touch on some basic theoretical grounding of speech dynamics, and discuss the significance of the contributions made by each paper of the special issue under the rubric of mechanisms of regulation in speech. The special issue is interdisciplinary in nature, bringing together papers from different perspectives, ranging from tutorial and critical review papers on dynamic systems to original research papers on the regulation of speech in both normal and adverse (atypical) conditions. These selected papers, taken together, make considerable advancements in illuminating how variation in production and perception can be seen as a window to linguistic structure within and across languages.

Martijn Wieling(2018), Analyzing dynamic phonetic data using generalized additive mixed modeling: A tutorial focusing on articulatory differences between L1 and L2 speakers of English.

In phonetics, many datasets are encountered which deal with dynamic data collected over time. Examples include diphthongal formant trajectories and articulator trajectories observed using electromagnetic articulography. Traditional approaches for analyzing this type of data generally aggregate data over a certain timespan, or only include measurements at a fixed time point (e.g., formant measurements at the midpoint of a vowel). This paper discusses generalized additive modeling, a non-linear regression method which does not require aggregation or the pre-selection of a fixed time point. Instead, the method is able to identify general patterns over dynamically varying data, while simultaneously accounting for subject and item-related variability. An advantage of this approach is that patterns may be discovered which are hidden when data is aggregated or when a single time point is selected. A corresponding disadvantage is that these analyses are generally more time consuming and complex. This study aims to overcome this disadvantage by providing a hands-on introduction to generalized additive modeling using articulatory trajectories from L1 and L2 speakers of English within the freely available R environment. All data and R code is made available to reproduce the analysis presented in this paper.

Clara D. (2019) Third-language learning affects bilinguals' production in both their native languages: A longitudinal study of dynamic changes in L1, L2 and L3 vowel production. This study examined the impact of a study abroad (SA) English program on English and native vowel production. Basque-Spanish bilingual adolescents were assessed on their vowel production in English, Basque and Spanish before the SA program, the day after the program was completed, and four months later. The results revealed that after the SA program, participants' English vowels were acoustically closer to English norms, revealing the effectiveness of SA programs in improving English vowel pronunciation. Yet, four months later, these benefits had faded, showing that regular input and active language use are required to maintain accurate pronunciation. SA also had effects on native production: bilingual participants showed assimilatory acoustic drift in both their languages towards the English vowel system; the extent of this drift was negatively correlated with improvements in English pronunciation. However, four months later, participants showed a 'return' drift towards their native norms. The results also revealed that usage frequency and switching habits played a 'protective' role: Frequent switching in bilinguals made the dominant native language less vulnerable to foreign-language influence. Our results suggest that factors related to the frequency and circumstances of native language use are key to authenticity in native language production.

Rachel Smith Tamara Rathcke (2020)Dialectal phonology constrains the phonetics of prominence.Accentual prominence has well-documented effects on various phonetic properties, including timing, vowel quality, amplitude, and pitch. These cues can exist in trading relationships and can differ in magnitude in different languages. Less is understood about how phonetic cues to accentuation surface under different phonological constraints, such as those posed by segmental phonology, aspects of the prosodic hierarchy, and international phonology. Dialectal comparisons offer a valuable window on these issues, because dialects of a language share basic aspects of structure and function, but can differ in key segmental and suprasegmental constraints which may affect the cues that realise accentual prominence. We compared the realization of trochaic words (e.g. cheesy, picky) in accented/unaccented and phrase-final/non-final positions in two dialects of British English. Standard Southern British English, and Standard Scottish English as spoken in Glasgow. We found generally shallower prominence gradients for Glasgow than SSBE with respect to intensity and duration, and very little evidence of accentual lengthening of vowels in Glasgow, compared to robust effects in SSBE. In contrast, phrase-finality had similar effects across the two dialects. The differences observed illustrate how the expression of accentual prominence reflects and reveals the different segmental and international systems that operate within dialects of the same language.

The aim and objectives of the present study

The aim of this research is to examine the segmental features and the word accentual patterns in English spoken by Arabian under graduate students studying in different colleges in GCC. Firstly, the researcher is interested in finding out the segmental features, their conformities, inconsistent conformities with RP and segmental divergences from RP in the students' English. Finally the researcher tries to find out the word accentual patterns and their conformities and deviation from RP, which is supposed to be a good model for imitation.

Objectives: The present study aims at the following

To design word List-l where all the English segments are present in the initial, medial and final positions and other phonetic features like plural markers, insertions etc.

To design word list-II that comprehensively accommodates the dominant word accentual patterns like -ion, -ity, etc.

To design sentences weaving the words into where the words that have contrastive stress possibility.

To record the test materials (word lists I, II, III) while the speakers render the material.

To compare the transcripts against RP pattern.

To establish the patterns those are in conformity, inconsistency and divergence.

The scope of the Study

Keeping in mind the availability of the time and practicability, the present research has attempted to analyze exclusively the segmental features and their divergences from R.P. pattern and also to analyze the word accent and its divergences from the R.P. pattern. The study is restricted to only 30 speakers from five Arab countries in GCC. Six speakers from each country have been taken for the study.

The Choice of the Speakers

The thirty speakers will record arc under graduate students from different colleges in GCC. They are students of different courses offered at the UG level namely B.A., B Sc., and B.Com, and of first, second and third years. Fifteen of the speakers are women and fifteen others are men. Their age group ranges from nineteen to twenty-three. None of them has undergone any special training in either phonetics or in spoken English.

Research Methodology:

A record of each speaker's particulars was kept in the form reproduced below.

Speaker

1. Name
2. Age
3. Sex
4. Nationality
5. District/place
6. Qualification
7. Occupation
8. Mother tongue
9. Other languages spoken known
10. Medium of instruction in school
11. Medium of instruction in college
12. Date of Recording
13. Have you undergone any training in phonetics?

Test material

The text used for all recorded specimens comprises three Lists. All the words given in the list are words that are commonly used.

Word list-I

Comprised 66 words and this word list was to observe the phonemic inventory in all three positions (initial, medial and final) of the words and other features like plural markers, past tense markers, elisions and insertions. Among 66 words, 54 words were taken to test 44 sound phonemes in three different positions. The remaining words were taken to test other phonetic features. For the purpose of economy, one word occurs in initial, medial and final positions two or three times for a particular test item. The words were chosen in such a way that each one of them has a particular RP. Phoneme under study.

The 66 words of the Word List-! Is reproduced below.

Ex: Creative – Golden – Zinc – Ring – Earth…..

The phonemes under consideration in each word in the list are: (The phonemes are underlined in Initial, medial, final positions)

Word lists II and III were prepared by choosing words, noun phrases and compound nouns which were very simple and commonly used. All the words have two and more than two syllable. The primary purpose behind the selection was to examine the word accentual patterns of the speakers.

The sixty-four words of the word list-II are reproduced below: Word List – II

Ex: Across – irregular – university – geography….

Word list - III was prepared to test the contrastive accent of the five words having two grammatical functions each (as a noun /verb) were used in the ten sentences.

1. Refuse 2. Record 3. Produce 4. Object 5. Insult

The purpose of including these words is to represent contrastive accent and to find out whether the speakers use the different accentual patterns according to the different grammatical functions of the word. The sentences were organised up in such a way that no two sentences having two different grammatical functions of the same words were arranged consequently. This was deliberately done in order to not to make the speaker suspect anything significant about the repetition of the same word in two different sentences. List-III is reproduced below:

List - III

1. I refuse to go to this party.
2. There's a record of it in the library.
3. We ought to produce more food.
4. Look at that distant object.
5. You have turned the street into a refuse dump.
6. Why did you insult him?
7. Agriculture produce is brought here from villages.
8. We should like to record this program.
9. I take that as an insult.
10. I must object to this proposal.

Recordings:

The speakers had their utterances recorded in quiet surroundings. At Sonic 630 Transcend voice recorder was used for recording all the twenty speakers. Each speaker was provided with a copy of the text a few minutes before he/she was recorded. They were asked to go through the text carefully and to read out the text quite naturally. The speakers were asked to mention their names and the names of their countries before reading the text. They were specially requested to pause a little after each word. After each recording was over, it was played back and checked to ensure that the recording was properly done. Depending on

the convenience of the speakers, the recording was done in different sittings. The researcher personally recorded all speakers.

Analysis of the Recordings

List-I of all recordings will phonetically transcribed on the basis of auditory impression. Special attention was paid towards the test item (phoneme) in each word. Any deviation from the RP phoneme will note. It will also check whether the speaker deviated from the RP phoneme when the same test item occurred in other places in the word list. If there was a consistent deviation from the RP phoneme, the deviant form was included in the phonetic inventory.

Accent was marked by listening to each word of List-II and each sentence of List - III (The grammatical function of the words in sentences are). The primary accent as used by the speaker on each word was marked. Secondary accent, if any, was not taken into account. Any pattern in the way the words were accented was noted.

Each speaker's recordings will be described and their phonetic system worded out. Divergences from RP were noted for each speaker. The phonemic inventory was established based on the majority pattern obtained from charts 1, 2, 3, 4, 5, 6, 7. To start with, 64 words were chosen for data collection. Out of the total number 48 were selected for suffixes and prefixes, 7 for noun phrases, 3 for abbreviations, 6 for compounds. The total number carne to 64. The categorization of 64 was taken up at the time of data analysis.

The system of analysis adopted in the present research

The system of analysis adopted here is 'phonemic'. The phoneme, which is taken as a phonetic reality has been adhered to; this is what American linguists call 'segmental phonemes', i.e. vowel and consonant phonemes only. These phonemes form the basis of a syllable and the combination of one or more syllables forms a word.

Received Pronunciation as a model for analysis

English has world-wide usage and so naturally there are many varieties of English pronunciation. Though one wishes to have one international "Accent of English, such a utopia is not likely to emerge in the near future. It is the best to adopt either the standard British accent or the standard American accent as the basic model. The wide currency, high intelligibility, and adequate description available in the text books and the availability of sufficient recorded material are some of the criteria that arc to be taken into account while looking for a model. British RP is the best model available to us, if we consider the criteria above. British RP still enjoys considerable prestige throughout the world, being also the accent of most of the BBC announcers. British RP is most suitable for the research. For these reasons British RP was taken as the model for the sake of analysis.

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