ABSTRACT

A phonological analysis of Delhi Urdu has been presented in the thesis. The phonological analysis is based on the speech of artisans, craftsmen and other workers residing in and around Jama Masjid. The present study is based on the phonological principles of form-content linguistics. From-content linguistics regards the discipline of linguistics as a tripartite organization. The three entities involved in the linguistic analysis of language are orientations, theory and phenomena. And we know that orientations are the common facts about the character of language which serve as external control on hypothesizing, whereas theory deals with the explanation of the non-random characteristics of phenomena by postulating hypothesis. The theory provides the explanatory link between the orientations and the phenomena.

Phenomena are the observable facts of language. The phenomena of the discipline of linguistics are speech sounds. The structure and functioning of the phenomena are not random; they follow set patterns. It is the theory which explains the non-random characteristics of phenomena, and the theory in turn is justified by the orientations.

Although the seed of this linguistic theory can be seen in the work of Ferdinand de Saussure, it has been developed by professor William Diver and his students at Columbia University. In his phonological tenets, Professor Diver has also been influenced by his teacher Professor Andre Martinet. But the phonological theory in its present form, is fully developed at Columbia University. The study has been carried out and presented in terms of five (5) orienting principles of form-content linguistics, namely, physiological mechanism, human behavior, communication, acoustic medium and vision.

The present phonological analysis of Delhi Urdu is limited in scope both in the utilization of the data and the application
of orienting principles. Only the monosyllabic words, collected exhaustively, are mainly utilized in the analysis. At the same time, some polysyllabic, particularly bisyllabic, words are also used occasionally as illustrative examples, to reinforce the analysis arrived at, on the basis of monosyllabic words. Further, we have also limited ourselves to only four orienting principles, namely, physiological mechanism, human behavior, communication and vision. The fifth orientation (acoustics) is beyond the scope of the present study. Nevertheless, on the basis of received knowledge, we have made some comments on acoustic medium that tend to reinforce our phonological analysis arrived at through physiological mechanism.

The thesis begins with an introduction that contains theoretical background, field procedures, historical setting, and the scope of the study. The phonological analysis, as motivated by the five orienting principles, has been taken up in five chapters. At the end, we have presented summary and results of the phonological analysis of Delhi Urdu as analyzed in the various chapters of the thesis.

The first chapter deals with the "role of physiological mechanism in the make-up and distribution of phonological units in Delhi Urdu". First, we established the 57 phonological units that are produced by combining eight articulators and nine degrees of apertures. The phonological units are presented diagrammatically in the phonological grid in terms of these articulators and apertures. The phonological units are broadly categorized into two types, namely, constrictions and openings. The constrictions include the units at 0 aperture (stops) and 1, 1 1/2, and 2 apertures (fricatives). The openings include the units at aperture 3 (liquids and nasals) and apertures 4 through 8 (vowels). Both the shaping of the oral cavity and the excitation are brought about by the oral articulators in the production of phonological units at constriction apertures. In contrast, only the shaping of the cavity is done by the oral
articulators in the production of units at the opening apertures; the excitation is produced by the glottis through voicing for these phonological units. Traditionally, the phonological units are divided into "consonants" (our apertures 0 through 3) and "vowels" (our apertures 4 through 8).

In a separate section, we have dealt with the combinatory pattern of phonological units in terms of the distribution of air stream. We have shown through frequency count how repetition of unaspirated and aspirated stops in the initial and final positions of the word, is avoided in terms of this criterion.

An important portion of our research deals with the impact of hierarchy of the adroitness of articulators on the make-up and distribution of phonological units. Of the lingual articulators, the apex is the most adroit, followed by dorsum, medium and post-dorsum (root of the tongue), in that order. Labium is placed below the apex and above the medium, somewhere near the dorsum. The impact of this hierarchy can be seen even in the phonological paradigm. The most adroit apex brings about two vertical orders of apical consonants, namely, the apico-dental and the apico-palatal ("retroflex"). The least adroit post-dorsum has only one consonant (q) on its axis. However, the hierarchy of the adroitness of articulators has a much greater impact on the distribution of consonants in the syntagmatic organization of the word in Delhi Urdu. This impact is highlighted by the statistical support through frequency count.

Towards the end of the chapter, we provide the rationale for the suitability of the medium and the dorsum to be the primary organs in the production of vowels. It is argued that these two parts of the tongue, with their rectangular shape, are ideally suited for the shaping of the resonant cavity required for the vowels.

The second chapter deals with the "role of human behavior in the phonology of Delhi Urdu". The phonological analysis is geared
to the common human traits of **laziness** (desire to use minimum possible effort), and **intelligence** (through which maximum output is sought). The two traits interact in the use of language, producing phonological skewings that can only be explained in terms of human behavior. The human behavior-oriented analysis of Delhi Urdu phonology is mainly applied to the syntagmatic (combinatory) aspect of the language. At the same time, we do provide supporting evidence for the justification of the phonological grid in terms of human behavior.

The thrust area of research in this chapter may well be the "preference for fewer articulators over more articulators" in the production of phonological units in Delhi Urdu. It is demonstrated through frequency tables that the voiceless consonants are preferred over the voiced consonants, the unaspirated stops are highly favored vis-a-vis the aspirated stops, and the oral vowels predominate the nasal vowels in Delhi Urdu in terms of the number of articulators as the human behavior criterion.

Though two separate orders of apical consonants (dental versus retroflex) are brought about by the physiology of the apex as the most adroit articulator, the two opposing consonants are not favored equally. This inequality in the make-up and distribution of the opposing consonants is explained in terms of human trait of favoring the proximate point of articulation over the remote point of articulation in the production of consonants. The preference of apico-dental ("dental") consonants over the apico-palatal ("retroflex") consonants is established through frequency count.

Another area of phonology, the assimilative trait of phonological units, is best explained in terms of human behavior. The preference of the CVC words over the cluster words is also justified in terms of human behavior. Supporting evidence for the human behavior justification of the phonological grid is provided at the end of the chapter.
The third chapter, entitled the "role of communication in the phonology of Delhi Urdu", begins with the communicative justification of the "phonemes", which comprise most of the phonological units in the grids (Diagram 1-1). This justification is provided in terms of contrast through the minimal pairs, of course without apology to the use of "meaning". The "phonemic inventory" (Diagram III-1) thus formed, becomes the backbone of the phonological grid that was based on physiological parameters.

In this chapter, we also provide communicative rationale for the phonological merger in Delhi Urdu. The classical Urdu ĕ: ĕ: ĕ: ĕ: are lost in Delhi Urdu and are merged with e: ĕ: o: o: in this dialect of Urdu. Also the classical Urdu -eh -eh -oh -oh loose the final -h in Delhi Urdu with the compensatory lengthening of the preceding vowel. These newly formed long vowels -e: -ĕ: -o: -ŏ: are also merged with e: ĕ: o: ă:.

Both these mergers are explained in terms of communicative ("functional") load here.

An important section of this chapter deals with the role of communication in combinatory phonology. A significant portion of this section deals with the impact of communication on the frequency of phonological units in the various positions of the word. Here, the vast skewings of Delhi Urdu consonants in the initial and the final positions of the word are highlighted through tabular presentations of the frequency counts. It is argued that the consonantal preferences in terms of the adroitness of articulators (physiology), and the number of articulators (human behavior), are drastically skewed in word initial and word final positions. For the communicatively important initial position of the word carries a greater communicative ("functional"") load than the final position of the word that is only marginally significant for the communicative distinctiveness.

The last section of the chapter on communication deals with
the homonymy that is created by the phonological merger and by
the contraction of some classical Urdu bisyllabic words into
monosyllabic words in Delhi Urdu. It is demonstrated with the
support of data that neither the merger nor the contraction
creates a large scale homonymy in Delhi Urdu. It is also shown
through examples how nasalization is dropped from the vowels in
Delhi Urdu in non-homonymy context, but the drop of nasality is
generally avoided when it creates homonymy.

Nevertheless, we do encounter homonymy in Delhi Urdu,
particularly created by word final deaspiration in this dialect
of Urdu. All such homonymous pairs are listed and are followed by
explanatory remarks. It is argued that the limited homonymy of
the type found in Delhi Urdu does in no way hamper communication
and can easily be borne by the speakers of a language.

In the fourth chapter, the "role of acoustics in the
phonology of Delhi Urdu", we have presented acoustic rationale
for the lip-rounding of the back dorsal vowels in terms of
formant frequencies. However, our comments on acoustic base of
Delhi Urdu phonology are based on received knowledge.

The fifth chapter of the thesis deals with the "impact of
vision on the phonology of Delhi Urdu". It is argued that in view
of its visibility, the labial articulator should be preferred at
the communicatively important initial position of the word, over
all other articulators, namely, the apical, the dorsal, the
medial, and the post-dorsal. As we have demonstrated through the
frequency count, this is indeed the case. Although the apical
consonants are highly favored in their over-all frequency of
usage in the word vis-a-vis the other four types of consonants,
i.e., the labial, the dorsal, the medial, and the post-dorsal, in
terms of the hierarchy of the adroitness of the articulators, it
is noteworthy that the percentage of the labial consonants
becomes the highest of all five types of consonants in word
initial position vis-a-vis word final position. This disparity in
the usage of labial versus non-labial consonants in the initial
position of the word can only be explained in terms of vision as an orienting principle.

In the last chapter containing the summary and results of the thesis, we have dealt with the interaction of the various orienting principles that affects the phonology of Delhi Urdu. The interaction of the orienting principles can take any direction from the physiological mechanism to human behavior, or between physiology and communication, or between physiology, human behavior and communication. We have reviewed some of the important instances, whereby two or more orienting principles are found to be interacting in providing justification for the observed asymmetry in the make-up and distribution of phonological units in Delhi Urdu.

The present phonological analysis of Delhi Urdu is based on the assumption that phonological units of a language are tied to one another in a non-random relationship, both paradigmatically and syntagmatically. The units are organized in the grid in terms of their physiological, human behavior, acoustic, and communicative base, and are characterized by a value relationship. The arrangement of phonological units in the syntagmatic organization of the word is also determined by physiological, human behavior, communicative, visual, or acoustic traits. In other words, phonological characteristics of a language are fully motivated by the orientations. The evidence that we have presented in validating phonological analysis of Delhi Urdu, proves this point beyond reasonable doubt. Therefore, the thesis may not only contribute to our understanding of the inner mechanism of Delhi Urdu phonology, but also to our understanding of the theory of phonology in general.

The thesis contains both theoretical and methodological innovations in the study of Delhi Urdu phonology. It abandons description in favor of explanation in terms of independently verifiable orientations, and presents quantitative procedures for validating the phonological analysis.