ABSTRACT

The thesis presents a phonological analysis of the Deccani Urdu of Hyderabad in the theoretical framework of the Columbia school of linguistics. Although the origin of this theory can be traced back to Ferdinand de Saussure's *course de linguistique generale* (1916), the theory has fully been developed by Professor William Diver and his students at Columbia University. Besides N.S. Trubetzkoy of the Prague school, Professor William Diver has also greatly benefited from his teacher Andre Martinet, in the development of phonological theory in particular. The independently known and verifiable five orienting principles of this theory, namely, physiological mechanism, human behavior, communication, acoustic medium, and vision together provide the setting for the study of phonology with which the present analysis is associated. Thus, it is through these quintuple orientations that we provide motivated rationale for the paradigmatic and syntagmatic asymmetries as encountered in Deccani Urdu phonology.

In the Introduction, we dealt with the historical setting of Hyderabad Urdu, the field procedures utilized in the collection and analysis of the data, the theoretical principles that motivate the phonological analysis, and the scope of the study.
Further, we have taken up each of the quintuple orientations in separate chapters in the thesis to provide explanation for the particular skewings observed in the paradigmatic make-up and syntagmatic distribution of phonological units in Deccani Urdu.

In the first chapter, the physiological mechanism as an orienting principle has fully been discussed with a view to providing explanations for the paradigmatic and syntagmatic asymmetries of the phonological units in Deccani Urdu. All phonological units both consonantal and vocalic, are projected on the relevant intersections of the basic physiological parameters of the articulators and the apertures to form the network of these units which is formally termed as the phonological grid. We observed clear skewings both in the organization of the phonological units in the grid and in the syntagmatic distribution of these units in the word. As the distribution of phonological units is not uniform, all these paradigmatic and combinatory asymmetries of the phonological units of Deccani Urdu have been explained in terms of the physiological mechanism as an orienting principle in this chapter.

Further, it has been argued that the differing degrees of adroitness of the supraglottal articulators has an impact on both the paradigmatic make-up of phonological units and in their syntagmatic usage in the word in Deccani Urdu. As a
yadstick, the scale of adroitness of supraglottal articulators has been set up, with the apex as the most adroit, the dorsum and the labium as more adroit, the medium as less adroit, and the post dorsum as the least adroit. In accordance with this scale relationship, it is predicted that the apical consonants should be most preferred both in the number of units and in their frequency of usage in the word in Deccani Urdu followed by the labial/dorsal and medial consonants in that order. And it has been amply demonstrated through actual counts that the scale relationship is fully maintained.

It has also been argued that the structure and the shape of the medium-dorsum mass is ideally suited for the formation of the two resonant cavities, which are essentially needed for the production of vocalic units in a language. It has been shown through a diagram that the three articulators, namely, the medium, the front dorsum, and the back dorsum, in association with the clearly audible apertures, 4 through 9, produce 20 vocalic units in Deccani Urdu. Of these 20 vocalic units, 8 units are produced by medium, 8 units by back dorsum, and 4 units by front dorsum. It has been noted that notwithstanding the angle of the jaws, there is a parity in the number of units for the back dorsal vowels vis-a-vis the medial vowels. In defense of this parity, it has been argued that as all the back dorsal vowels are labio-dorsal ("back rounded"), the impact of the angle of the jaw is more than compensated by
utilizing the labia as an additional articulator in the production of these vowels. That is why it becomes acoustically natural for the back dorsal vowels to have parity with the medial vowels. Likewise, the competitive figures for the frequency of usage of the back dorsal vowels with that of the medial vowels is again motivated by the use of labial articulators.

In the second chapter, the impact of human behavior has been evaluated on both the paradigmatic make-up and the syntagmatic distribution of phonological units in Deccani Urdu. Some of the phonological skewings as encountered in this dialect of Urdu, are in our judgement, clearly motivated by the human trait of intelligence (the power of inference) and laziness (the economy of effort).

It is these skewings that have been dealt in this chapter. In view of the well-known trait of human beings to minimize and economize in all situations, it is argued that the phonological units produced by fewer articulators are preferred over units produced by more articulators. For the simultaneous use of greater number of articulators requires fine and precise coordination of the articulators that is disfavored in terms of the human trait pertaining to the economy of effort. It is amply demonstrated through actual counts that the voiceless consonants, produced by fewer articulators, have been preferred over the voiced consonants, produced by more articulators in Deccani Urdu. Likewise, the
preference for oral vowels over nasal vowels in Deccani Urdu in again motivated by the fewer versus more articulators.

Further we have examined the apico-dental and apico-palatal consonants in terms of the human trait of preferring proximate place of articulation over remote place of articulation. In view of its extraordinary adroitness, the apex can come in contact with two places of articulation, namely, the teeth (adjacent place) and the palate (remote place). Thus, it becomes relatively difficult to produce apico-palatal consonants in terms of the human trait of economy of effort. It has been clearly demonstrated through actual counts that the apico-dental consonants have a preference over apico-palatal consonants, both in the number of units in the paradigm and in the frequency of usage in the word in Deccani Urdu.

Furthermore, in view of the general avoidance of fine and precisely coordinated movement of articulators, it is predicted that the phonological units that become similar due to the impact of assimilative trait of neighboring phonological units should be preferred. The skewed occurrences in favor of the similar and against the dissimilar combinations fully conforms to our expectations. We have also evaluated the impact of the degree of aperture change on the combinatory pattern of Deccani Urdu. It has been argued that larger changes of aperture which require less precision of control are preferred over small changes of apertures which require
greater precision of control. It is demonstrated through the potential and the actual occurrence of the three types of monosyllabic words (CVC, CVCC, CCVC) of Deccani Urdu that the CVC type which involve larger changes of aperture are drastically favored over the CVCC and the CCVC types. Further, it has also been examined that how human behavior orientation provides reinforcement to the validity of the phonological units in the grid in Deccani Urdu. The phonological skewings in the grid have been explained in view of the human preference for the physiologico-acoustically simpler, less complex phonological units.

In the third chapter, we have dealt with the orienting principle of communication to provide communicative rationale for the paradigmatic and syntagmatic skewings observed in Deccani Urdu. We have provided justification for 56 of the 60 phonological units presented in the phonological grid of Deccani Urdu. These 56 elemental units of communication ("phonemes") are established by way of contrast through minimal and subminimal pairs. Further, in view of the differing communicative load at the initial and final positions of the word, it is argued that all the four types of consonants (apical, labial, dorsal, and medial) compete well in the communicatively important word initial position, whereas the preferred apical consonants, produced by the most adroit apex, are highly favored over the non-apical consonants in the
communicatively less important word final position in Deccani Urdu. This discrepancy in the usage of consonants in the initial and final positions is clearly motivated by the communicative factor. Furthermore, we have also argued that the phonological units that are characterized with low communicative load are likely to be eliminated and merged with the neighboring units. Therefore, the elimination and merger of the post dorsal q of modern standard Urdu into the front dorsal x of Deccani Urdu can be justified.

In the fourth chapter, we have evaluated the impact of vision as an orienting principle on the phonology of Deccani Urdu. Here, we have shown that the impact of vision is limited only to the syntagmatic organization of the word. A motivated rationale has been provided for the skewed occurrence of the labial units in the word initial position. It is argued that the drastic increase in favor of the labial consonants and against the non-labial consonants in the initial position of the words is brought about by the visibility factor of the labial articulator. Whereas in the final position of the word, the labial consonants are additionally disfavored due to the inverse impact of vision.

In the fifth chapter, we have gauged the impact of select acoustic aspects that have a bearing on the make-up and distribution of phonological units in Deccani Urdu. On the basis of acoustic audibility we have classified 60 phonological
units of Deccani Urdu into 20 vocalic (clearly audible) and 40 consonantal (less clearly audible). This audibility provides the theoretical basis to divide the lexical units into the monosyllabic, bisyllabic or the longer words on the basis of the combination of keystone and flanking units. The formation of the resonant cavities within the supraglottal cavity in the production of vocalic units has been discussed here. Further, the acoustic rationale has been provided for the rounding of the lips in the production of back dorsal vowels. We have also provided acoustic justification for the four-way classification of stops and gauged the impact of this classification on the frequency of usage of these stops in the monosyllabic words in Deccani Urdu.

The phonological analysis presented here, departs radically from the traditional analysis in that here we have provided an explanation of the non-random distribution of phonological units in both their paradigmatic make-up and combinatory organization in the word in terms of the independently known and verifiable quintuple orientations.

The thesis contains both theoretical and methodological innovations in the study of Deccani Urdu. The analysis presented here abandons description in favor of explanation, and employs quantitative procedures for verifying the hypothesis. The results of this study support the claim that phonology is not random but motivated.