ABSTRACT

The phonological analysis of Modern Standard Hindi presented in this thesis is based on the phonological principles of Form Content Linguistics. The root of this theory can be associated to Ferdinand de Saussure's Course de Linguistics Generale (1916). The theory has been developed by Professor William Diver and his students at Columbia University. Besides N.S Trubetzkoy of the Prague School, Prof. William Diver was also greatly benefited from his teacher Andre Martinet, in the development of phonological theory and presented in terms of the five orientations as the principles of classification, namely-physiological mechanism, human behavior, communication, acoustic medium, and vision, as the motivating principles for departures from the non-random distribution of the phonological units, both syntagmatically and paradigmatically.

In the Introduction, we have dealt with the historical settings of Modern Standard Hindi, the procedures utilized in the collection and analysis of the data, the theoretical principles of Form – Content linguistics that motivate the phonological analysis, and scope of the study in sections A,B, C and D, respectively.

In chapter I, we have made an attempt to briefly present the physiological base of Modern Standard Hindi in terms of
physiological mechanism in the paradigmatic makeup and the syntagmatic distribution of phonological units of Hindi.

Section A of this chapter deals with the postulation of phonological units of Modern Standard Hindi in terms of two physiological variables, namely; articulators and apertures. The phonological units are presented diagrammatically in the phonological grid (Diagram 1-1). The phonological grid is a network of horizontal and vertical lines, representing nine articulators and eight apertures, (degrees of apertures are subjected to two broad divisions, namely; constriction versus opening and the clearly audible versus less clearly audible. It has been noted that the phonological grid is different from the “phonemic inventory” which is traditionally based on the substitution–distribution criteria used by the American structuralists.

In section B, we have evaluated the impact of the hierarchy of adroitness of articulators on the paradigmatic make up of the consonantal units and their frequency of occurrence in the monosyllabic words in Modern Standard Hindi. We have set up a scale of adroitness for the articulators, 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, we predicted that the apical consonants should be most favored both in the number of units and their
frequency of usage in the words, followed by the labial or dorsal consonants, the medial consonants, and the post-dorsal consonants in that order. It has been amply demonstrated through the actual frequency counts that the paradigmatic and the syntagmatic distribution of phonological units of Modern Standard Hindi fully conforms to our expectations.

In Chapter II, we have assessed the impact of human behavior on both the paradigmatic make up and the syntagmatic distribution of the phonological units of Modern Standard Hindi.

This chapter broadly covers two aspects of human behavior, namely the relative preference of gross articulatory movements, (fewer versus more, etc.) over fine articulatory movements and the human behavior justification for the phonological grid.

In section A, we have take up three main dichotomies among the phonological units of Modern Standard Hindi that are motivated by the human trait of preferring fewer articulators over more articulators. The dichotomies, voiced versus voiceless consonants, unsaspirated versus aspirated among the stops, and oral versus nasal vowels, are characterized by use of an extra articulator. It is seen that phonological units which employ fewer articulators like the voiceless, unaspirated, and non-nasal (vowels) units are preferred over the voiced, aspirated, and nasal (vowels) units
because the latter utilizes more articulators in their production and therefore, requires greater precision of control.

In section B, the second type of phonological skewings are explained in terms of apico-dental units being preferred over the apico-palatal units. It has been shown that it is easy for the apex to contact dentum, an adjacent point of articulation. Thus, apico-palated consonants require greater precision and are disfavored over their apico-dental counterparts. The disfavoring for apico-palatal consonants have been shown by comparing number of units and frequency counts of apico-dental and apico-palatal consonants.

In section C, we have evaluated the impact of the assimilative trait of neighboring phonological units that are manifest in the combinatory phonology of Modern Standard Hindi. Neighboring phonological units tend not to be precisely different from each other to avoid fine precisely coordinated movements and therefore assimilate to become similar.

In section D, we have dealt with the impact of the degree of aperture change on the combination of the phonological units. It has been argued that large change of aperture requires less precision of movements. As a result they are favored over small changes of apertures because they require fine and precise movements and coordinations. We also find that among the monosyllabic words, the frequency of such combinations are more
which utilize large changes of aperture. This is again perfectly in conformity with our expectations.

In section E, we have shown that human behavior orientation provides reinforcement to the validity of the phonological units in the grid (Diagram 1-1), established on physiological factors in terms of the physiological mechanism.

In Chapter III, an attempt has been made to assess the role of communication in the phonology of Modern Standard Hindi.

In section A, we have dealt with the impact of communication on the paradigm of most of the phonological units of Modern Standard Hindi presented in the phonological grid (Diagram 1-1). We have presented the phonemic inventory of Modern Standard Hindi also, by way of contrast through minimal and sub-minimal pairs of words. We established 56 elemental units of communication ‘phonemes’ for Modern Standard Hindi, of which are consonants and 20 are vowels.

In section B, we studied the combinatorial pattern of phonological units that is again motivated by communication. Here, it is again discussed and illustrated with a list of examples that consonantal interchange in the initial and final position in the CVC words bring about the formation of two well defined with entirely different meanings in Hindi. Here, we have also assessed the impact of communication and the hierarchy of adroitness of articulators for
the relative preference among consonantal units in the CVC words of Modern Standard Hindi. We have clearly shown through statistical counts the preference for the voiceless stops over the voiced stops and the favoring of unaspirated stops over their aspirated counterparts in the word final position which is clearly motivated by the low communicative load to this position. In all instances, we also found that the favored phonological units are additionally favored at the expense of the disfavored units in the final positions of the words. However, the preference of favored units is slightly reduced to the advantage of the less favored units in the initial positions of the words. This disparity in the distribution of phonological units in the two positions of the words is brought about by the factor of communication.

In section C, we deal with the harmony which creates a communicative problem, we have shown that such type of homonymy is easily tolerated by Modern Standard Hindi. We have given examples to look show the homonymy being created as a result of final desperation at the end of the word.

In chapter IV, we deal with the impact of some selected acoustic aspects that have a bearing on the makeup and distribution of phonological units of Modern Standard Hindi.

We, therefore, provide a theoretical basis to divide the lexical units into the monosyllabic, bisyllabic, and longer words in
Modern Standard Hindi on the basis of the combinations of keystone and flanking units.

In section B, we provided acoustic explanation for medium-dorsum mass as most preferred for the production of vowels.

The medium-dorsum mass determines the size of the two resonant cavities which ultimately affect the quality of vowels.

In section C, we evaluate with the impact of acoustic explanation of the lip rounding of back –dorsal vowels.

In chapter V, we have made an attempt to evaluate the impact of vision as an orienting principle on the phonology of Modern Standard Hindi. We have made comparison between labial and non-labial consonants in the initial and final positions of the word. It was argued that the increased frequency of the labial consonants in some instances could well be attributed to the visibility impact of the labial articulator, in the initial position of the word.

In the last chapter of the thesis we have made an attempt to present summary and conclusions. We briefly summarize the individual chapters of the thesis, beginning with the Introduction, where the historical setting of Modern Standard Hindi, techniques for the collection of data, theoretical background and scope of the study have been discussed. We also present a brief summary of
physiological mechanism, human behavior, communication, acoustic medium and vision in Chapter I through 5, respectively.

The thesis consisting of the phonological analysis of Modern Standard Hindi contains both theoretical and methodological innovations in the study of Modern Standard Hindi. It is based on the assumption that the phonological units of a language are tied to one another in a non-random relationship both paradigmatically and syntagmatically. The phonological units in the paradigm are tied to one another in terms of value relations, which is organized in terms of physiologico-acoustic factors. The syntagmatic arrangement of the phonological units are also determined by the orienting principles. Thus, the phonological characteristics of a language are fully motivated by the orienting principles which is evident in the phonological analysis undertaken here and proves the validity of our analysis beyond doubt.

Thus, the thesis may not only contribute to our understanding of the inner mechanism of Modern Standard Hindi phonology, but also to our understanding of the theory in general. It abandons description in favor of explanation in terms of distinctly identifiable orientations. It is also innovative in that the validation of the phonological analysis is conducted through quantitative procedures both in the paradigmatic makeup and syntagmatic organization of the word in Modern Standard Hindi.