A Comparative Phonetic Analysis of Major World Languages: Evaluating the Structural Organization of Sanskrit Phonemes

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Abstract

This study examines the structural organization of phonetic systems across languages, with particular focus on the Sanskrit *varṇamālā*. While modern phonology emphasizes feature-based analysis, it often overlooks systematic articulatory arrangement. In contrast, Sanskrit presents a highly ordered phonetic framework based on *sthāna* and *prayatna*, where each *varṇa* corresponds to a minimal and distinct articulatory configuration. Through comparative analysis with major world languages, including English, Latin, French, German, and Greek, the study highlights differences in phonetic stability, compositionality, and structural transparency. It is observed that many phonetic forms in these languages can be analyzed as combinations of articulatory units that correspond to those systematically represented in Sanskrit. The concept of "phonemic indivisibility" is interpreted in a structural sense, referring to articulatory minimality within a defined phonetic grid. The findings suggest that Sanskrit offers a coherent and analytically valuable model for comparative phonological analysis.

Keywords: Sanskrit Phonology, Comparative Phonetics, Phonemic Indivisibility, Articulatory Classification, Paninian Linguistic Framework