

## Compensatory Articulation of Pressure Consonants in Telugu Cleft Palate Speech: A Spectrographic Analysis

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**Abstract :** For individuals born with a cleft palate (CP), there is no separation between the nasal cavity and the oral cavity, due to which they cannot build up enough air pressure in the mouth for speech. Therefore, it is common for them to have speech problems. Common cleft type speech errors include abnormal articulation (compensatory or obligatory) and abnormal resonance (hyper, hypo and mixed nasality). These are generally resolved after palate repair. However, in some individuals, articulation problems do persist even after the palate repair. Such individuals develop variant articulations in an attempt to compensate for the inability to produce the target phonemes. A spectrographic analysis is used to investigate the compensatory articulatory behaviours of pressure consonants in the speech of 10 Telugu speaking individuals aged between 7-17 years with a history of cleft palate. Telugu is a Dravidian language which is spoken in Andhra Pradesh and Telangana states in India. It is a language with the third largest number of native speakers in India and the most spoken Dravidian language. The speech of the informants is analysed using single word list, sentences, passage and conversation. Spectrographic analysis is carried out using PRAAT, speech analysis software. The place and manner of articulation of consonant sounds is studied through spectrograms with the help of various acoustic cues. The types of compensatory articulation identified are glottal stops, palatal stops, uvular, velar stops and nasal fricatives which are non-native in Telugu.

**Keywords :** cleft palate, compensatory articulation, spectrographic analysis, PRAAT

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