

Information-Controlled Laryngeal Feature Variations in Korean Consonants

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Abstract : This study seeks to investigate the variations occurring to Korean consonantal variations center around laryngeal features of the concerned sounds, to the exclusion of others. Our fundamental premise is that the weak contrast associated with concerned segments might be held accountable for the oscillation of the status quo of the concerned consonants. What is more, we assume that an array of notions as a measure of communicative efficiency of linguistic units would be significantly influential on triggering those variations. To this end, we have tried to compute the surprisal, entropic contribution, and relative contrastiveness associated with Korean obstruent consonants. What we found therein is that the Information-theoretic perspective is compelling enough to lend support our approach to a considerable extent. That is, the variant realizations, chronologically and stylistically, prove to be profoundly affected by a set of Information-theoretic factors enumerated above. When it comes to the biblical proper names, we use Georgetown University CQP Web-Bible corpora. From the 8 texts (4 from Old Testament and 4 from New Testament) among the total 64 texts, we extracted 199 samples. We address the issue of laryngeal feature variations associated with Korean obstruent consonants under the presumption that the variations stem from the weak contrast among the triad manifestations of laryngeal features. The variants emerge from diverse sources in chronological and stylistic senses: Christianity biblical texts, ordinary casual speech, the shift of loanword adaptation over time, and ideophones. For the purpose of discussing what they are really like from the perspective of Information Theory, it is necessary to closely look at the data. Among them, the massive changes occurring to loanword adaptation of proper nouns during the centennial history of Korean Christianity draw our special attention. We searched 199 types of initially capitalized words among 45,528-word tokens, which account for around 5% of total 901,701-word tokens (12,786-word types) from Georgetown University CQP Web-Bible corpora. We focus on the shift of the laryngeal features incorporated into word-initial consonants, which are available through the two distinct versions of Korean Bible: one came out in the 1960s for the Protestants, and the other was published in the 1990s for the Catholic Church. Of these proper names, we have closely traced the adaptation of plain obstruents, e. g. /b, d, g, s, ɟʒ/ in the sources. The results show that as much as 41% of the extracted proper names show variations; 37% in terms of aspiration, and 4% in terms of tensing. This study set out in an effort to shed light on the question: to what extent can we attribute the variations occurring to the laryngeal features associated with Korean obstruent consonants to the communicative aspects of linguistic activities? In this vein, the concerted effects of the triad, of surprisal, entropic contribution, and relative contrastiveness can be credited with the ups and downs in the feature specification, despite being contentiousness on the role of surprisal to some extent.

Keywords : entropic contribution, laryngeal feature variation, relative contrastiveness, surprisal

Conference Title : ICELLL 2019 : International Conference on English Language, Literature and Linguistics

Conference Location : Singapore, Singapore

Conference Dates : September 10-11, 2019