On the Relation between Phonetics and Phonology

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Chang, Woohyeok. 2012. On the Relation between Phonetics and Phonology. Linguistic Research 29(1), 127-156. This study examines the nature of the relationship between phonology and phonetics and advocates a modular view in which there is a principled mapping between phonological representations and phonetic expressions. In particular, this modular view is advocated by Laboratory Phonology that can be characterized by two beliefs. First, it is believed that there should be a division between phonetics and phonology. Second, there should be a considerable interconnection between them. Contrary to this modular view, other approaches are somewhat radical in that abstract phonological features are not associated with phonetic facts and that phonetics and phonology are integrated into a single module which is all phonetic. In favor of the modular theory, I propose a principle about phonology-phonetics interface: unmarked items display a wider range of phonetic realization but cannot be realized in a more marked way than their marked counterparts. One representative evidence would be that the higher pitch value of a tone compared with other tones has to be a phonological high tone rather than a low tone. Further discussions about phonology-phonetics interface are done with regard to speech perception and production. It is shown that perception and production data are valid when they are used as phonetic evidence to resolve phonological controversies. On the other hand, the P-map hypothesis seems invalid when dealing with some cases where speech production and perception do not match. (Dankook University)

Keywords relation between phonetics and phonology, abstract phonology, laboratory phonology, unified model, phonology-phonetics interface, P-map