

**Developmental changes in phonological representation:
An investigation using the imitation paradigm**

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Studies in phonetic imitation have shown that adult speakers become more similar to a model talker as the result of brief exposure, even without being instructed to imitate (e.g., Goldinger, 1998; Shockley, Sabadini, & Fowler, 2004). Nielsen (2011) showed that imitation is generalized at the sub-phonemic level, and is at the same time word- and phoneme-specific, indicating that multiple levels of phonological representation simultaneously contribute to the observed patterns of imitation. The current study extends previous research in phonetic imitation into the area of phonological acquisition, and investigates whether young children manifest similar patterns of imitation as adults. Previous research in phonological acquisition suggests that phonological categories emerge gradually as children make abstractions over the words they learn (Edwards, et al. 2011), and continue to develop well into the second decade of life (Hazan and Barrett, 2000). We conducted an experiment with a modified imitation paradigm with a picture-naming task, in which participants' Voice Onset Time (VOT) was compared before and after they were exposed to target speech with artificially increased VOT. Our results showed that children (preschoolers and 3rd graders) produced a greater degree of imitation than adult controls, indicating that children's less developed phonological categories lead to more imitation. The implications for accounts of phonetic imitation as well as first language phonological acquisition will be discussed.