[S16] **Learning to talk: Non-imitative mechanisms for the replication of adult phonetic phenomena in child speech.** Piers Messum, Department of Phonetics and Linguistics, University College, London, UK.

Does imitation play a central role in learning to talk (i.e. in learning the spoken component of speech)? It seems so. English speaking children, for example, acquire not only an authentic inventory of phonemes but also such arbitrary phenomena as the differential durational behaviour of tense and lax vowels, 'stress-timed' rhythm, context-dependent VOT's, and language universals like declination. Imitation is commonly assumed to be the replicative mechanism involved in all. I argue against this account, and propose that the combined effects of two other mechanisms provides an alternative to it, as follows:

1. Speech sound qualities are initially learnt by emulation: attempting to reproduce the results achieved by other speakers but without copying their actions in doing so. The effectiveness of the child's output provides the feedback which informs him of the adequacy of his performance and motivates refinement.

2. Phonetic phenomena such as those listed above appear as a result of various 'breath stream' accommodations. Key elements of this are, (a) that speech breathing is a complex motor skill which dominates other articulatory processes during acquisition; (b) that its development starts with ballistic gestures, making it pulsatile before it becomes smooth; and (c) that aerodynamic effects constrain a child's speech production in ways that do not apply in an adult speaker.

Much of “the terrible complexity of phonetic patterns” (Pierrehumbert, 2003) then becomes epiphenomenal: appearing because children reconcile conflicting production demands while talking rather than as a result of them copying phonetic detail that is not linguistically significant.