The acquisition of stress in production: looking beyond cues and correlates

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English and German use 'stress accent' as a prominence mechanism. In the past, many phoneticians characterised stressed syllables as the result of a speaker applying greater respiratory system effort (Jensen 2004:3-17). Research conducted within speech science (e.g. Hixon 1987) has supported these intuitions. Nevertheless, many contemporary researchers assume that a child acquires stress by first identifying various acoustic cues for stressed syllables and then learning to use these acoustic cues to mark stress in his own speech.

Taken collectively, the acoustic cues of stress accent signal greater effort being made by speakers. To create syllabic prominence, the child learner may – alternatively – simply retrieve this single percept from the speech he hears and reproduce such effort in his own production of stressed syllables.

This proposal is supported by consideration of stress production from first principles, taking account of (1) the physiological backdrop of respiratory system activity in child learners, and (2) the aerodynamics of child speech (Messum 2007).

I will elaborate on this mechanism for acquisition, discuss why it has been overlooked and explain how it accounts for some of the timing phenomena found in West Germanic languages.

References: • Hixon, T. J. (1987). Respiratory function in speech and song. Boston, MA: Little, Brown. • Jensen, C. (2004). Stress and accent: prominence relations in southern standard British English. (PhD) University of Copenhagen. • Messum, P. R. (2007). The Role of Imitation in Learning to Pronounce. (PhD) University College London.