



TGIF: The NTU Linguist Chatroom



**Join us! Friday, 23 September 2016, 3.30pm
@ HSS Conference Room (HSS-05-57)**

Reading is an Unnatural Act, and it begins at Birth: The Role of Speech Perception in Literacy Development

Professor Denis Burnham, MARCS Institute, Western Sydney University
Visiting Professor, Linguistic and Multilingual Studies, Nanyang Technological University

Human speech has humble beginnings: in phylogeny it evolved to take advantage of existing auditory and articulatory hardware; in ontogeny infant speech perception begins even before birth and involves basic auditory (not linguistic) responses to acoustic input. After a couple of months in the outside world however, speech perception soon becomes linguistically tuned to the phonetic and phonotactic features of the ambient speech input.

Literacy, reading and writing, are historically much more recent developments than speech and have little or no phylogenetic history. Moreover, they usually do not emerge until way later in ontogenetic development (around 4-6 years). And unlike speech, reading and writing must be taught.

Nonetheless, I will contend that reading and writing too have humble ontogenetic origins – the seeds of literacy lie in the tuning of infants' (and children's and adults') speech perception to the ambient language environment(s).

Following an introduction to the acoustic/phonetic, phonemic, semantic and orthographic stages of speech perception and language development I will present a review our studies showing how literacy development is related to and even predicted by: early perceptual attunement and differential speech input to at- and not-at-risk infants for dyslexia; how well children assimilate the perceptual biases inherent in the phonology of their native language environment(s); on the use of visual (lips and face) information in speech perception in infancy and childhood; children's phonological and tonological awareness; and more. You will leave thoroughly convinced (a) that reading and speech perception are intimately related and (b) that infants work with caregivers to determine their speech perception and literacy development.

Speaker



In the 1970s (Monash U) **Denis Burnham** rode the exciting new wave of infant visual perception, and in the 80s (U of NSW) was one of the first Australian punks to jump onto newer wave of infant speech perception. Cross-disciplinary research was added in the mid-80s, and the mini-laboratories we call languages, in the late-80s. As Inaugural Director of MARCS Institute at Western Sydney U (WSU) (1999-2014) he maintained and extended his research focus on infant speech perception; cross-language studies; auditory-visual speech perception; special speech registers (infants, pets, foreigners, computers, lovers); hearing impairment and dyslexia; tone languages; human-machine interaction; speech corpus studies; and the speech perception literacy relationship. Burnham has over 200 publications (~ 80 journal papers), supervised ~20 PhD and Masters and > 70 Honours theses, and earned ~\$15M in research grants. He continues at WSU as Leader of Speech and Language research, but remains a moving target – he's currently on loan to LMS at NTU in Sg. .

The TGIF seminar series is organised by
the Division of Linguistics and Multilingual Studies, HSS

