

Review of: "A Review of Prosody, Punctuation, and Dyslexia: Implications for the Use of Speech Technologies"

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Potential competing interests: The author(s) declared that no potential competing interests exist.

I would like to thank this author for initially presenting a case for a paradigm switch for the underlying cause of dyslexia from purely a phonological processing deficit to working memory and visual and auditory processing deficits. Our working memory system is made up of several components, one being the phonological loop, which is key for reading, vocabulary, and language development. There have been links reported between the phonological loop and mean length of utterance, between the phonological loop and specific language impaired (Montgomery, et al., 2010), and between the phonological loop and apraxic adults (Baddeley, 2000). Research has identified that children with reading disorders have impaired working memory span, subvocal rehearsal, and phonological similarity effect (Kibby, et al. 2004). Weakness with the phonological loop has been associated with the phonological awareness aspect of phonological processing. Phonological awareness is important for syllable awareness, word awareness and phonemic awareness.

The Visuospatial sketchpad is a third part of the working memory system. This portion is also domain specific, meaning that it functions independently of the phonological loop. The Visuospatial sketchpad is associated with the right hemisphere. It is responsible for executing spatial tasks. Some of these spatial tasks include keeping track of changes in the visual field over time, maintaining orientation in space, and directing movement through space. The latter is also referred to as kinesthetic (Baddeley, 2000). Weaknesses in the visuospatial sketchpad would result in difficulties with performing spatial tasks, such as following maps, copying from the board, and some research identified a difficulty with reading skills (Passenger, Stuart, and Terrell, 2000).

The connection of prosody and dyslexia is a complex multifaceted issue and I would gather that each dyslexic individual would have unique attributes that would prevent researchers and educators from placing all into a one size fits all box. Though the author did a nice review of many of these different aspects of prosody, it was not a complete picture of prosody. For example, the emotional aspect of prosody and comprehension of thus. Nor did the author make a connection from their opening statement where they introduced the concept that working memory, auditory and visual processing are the underlying cause of dyslexia. I was left hanging waiting for them to come back around to how decreased working memory connects all these elements of prosody and dyslexia.