

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.

Dear author,

I would like to congratulate you on your choice. This topic is very relevant and challenging for the approach to developmental dyslexias. I think your review is good, but I suggest major improvements so that your work has impact and relevance for publication.

In the first paragraph, I would be careful with the last sentence "*However, it has been exemplified that dyslexic children have several cognitive deficits, for instance in visual and auditory processing, as well as in working memory, and it has been hypothesised that these cognitive deficits are the root cause of dyslexia, rather than the issues in phonological process (Wright et al., 2000).*" – Difficulties in central auditory processing, especially in temporal aspects, can be precisely the justification for poor phonological processing, because by not correctly processing the acoustic information of phonemes and continuous speech, the individual may develop difficulties in phonological processing. I would also rephrase the sentence because failures in working memory can also be the cause of poor phonological processing, as phonological working memory is one of its structures.

Your work seems to have a good initial theoretical basis, but I suggest you detail some important points that you just mentioned. As you defend, prosody and punctuation difficulties can be generated by a deficit in the auditory processing of dyslexic children. This is very real. I suggest detailing the relationship between implicit/explicit prosody and central auditory processing, especially with auditory memory, temporal resolution, perception of duration patterns and amplitude modulations skills.

You cite a perfect author for this topic, Usha Goswami – I suggest that you better explain in your review the neurophysiological relationships between the perception of speech amplitude modulations and energy peaks in vowels and syllables for marking stressed syllables, as well as the perception of the duration of sounds and their pauses during continuous speech, from the phoneme level and not only in its relation to the syntactic level. This author (Usha Goswami) explains these issues very well in her works and I also suggest reviewing, studying, citing and discussing the literature mentioned by her.

To make your review relevant, I suggest you systematize your search. Some steps cannot be missed and should be mentioned, such as:

- what are your search criteria?

- what descriptors did you use to search the primary studies in this review?
- which databases did you consult?
- what date are the publications from? From the last 5 years? 10 years?
- what inclusion criteria did you consider to include studies in your review?
- what exclusion criteria did you consider to exclude studies from your final review?

To better systematize your search, I suggest using the PRISMA method for revisions.

After that, fundamental issues must be mentioned:

- methodologies of the chosen studies;
- characteristics of the samples and types of dyslexia studied;
- interventions, treatments and tools used in the chosen studies;
- languages in which the studies were developed. Remember that in studies of reading development and its disorders, you should avoid using only studies done in English (language with very deep spelling). For a scientific impact review, it would be more appropriate to research the same effects also in samples of languages with transparent orthographies.
- results of these studies. If it is not possible to do a meta-analysis, at least you will have enough material to discuss a systematic review in a qualitative way;

I suggest organizing this data into tables.

I encourage you to continue. This subject is very important for the evaluation and treatment of dyslexia. Good luck!

Fernanda