Electrophysiological correlates of phonological and temporal regularities in speech processing

Propositions of the doctoral dissertation

Electrophysiological correlates of phonological and temporal regularities in speech processing

1. Compared to typically reading adults, dyslexic readers show reduced sensitivity to variations in phonotactic probability during speech perception.

2. Dutch speaking adults did not show sensitivity to variations in syllable stress in pseudowords in passive speech perception.

3. Phonological and rhythmic regularities in speech are processed via independent mechanisms in sublexical speech processing.

4. Regularities in the phonological and temporal structure of speech are exploited differently during perception and production.

5. Good science takes time. Pilot data from adapted EEG paradigms should be carefully inspected to resolve possible design issues before collecting a full dataset.

6. Using EEG to investigate speech processing in passive paradigms can provide insights that might otherwise be confounded by explicit task demands.

7. Studies investigating neurodevelopmental disorders such as developmental dyslexia should include a sample with diverse educational and socioeconomic backgrounds.

8. Theories of typical and atypical speech processing must include a crosslinguistic perspective to account for the diversity of human language.

9. Expanding our understanding of speech processing at a basic level can lead to a better understanding of atypical speech processing and inform future interventions.

10. The backbone of a good scientist is to want to solve a problem.

11. There is no reason to stop doing it until the results are boring. – Kasthuri et al., 2015

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