

The brain speaks : functional and structural neural correlates of language production impairments in classic galactosemia

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STELLINGEN BEHOREND BIJ HET PROEFSCHRIFT

The Brain Speaks:

Functional and structural neural correlates of language production impairments in classic galactosemia

- 1. Cognitive neuroscience provides a valuable perspective to understand classic galactosemia.
- 2. Syntactic planning in sentence production is reflected in multiple P300 time windows, each time-locked to the relevant visual event.
- In addition to potential impairments in motor speech planning, classic galactosemia can also affect the more cognitive planning stages of language production, such as lexical and syntactic planning.
- The observed language production impairments in this disease warrant more extensive studies which thoroughly review the current therapeutic approaches.
- Animated scenes can well be used as experimental stimuli to study language production and potential impairments to create a relatively natural setting.
- NODDI analysis allows more direct and specific estimations of white matter microstructure properties, and is a promising and feasible technique for clinical studies.
- Clinical researchers should not fear but embrace methodological advances, like fundamental scientists should not fear but incorporate the uncontrollability and unpredictability that come with clinical samples.
- 8. Multidisciplinary research, reference networks and patient organizations are the key to successful improvement of patient care in rare diseases by sharing knowledge and expertise, and bridging gaps.
- 9. If you're not making errors, you're not breaking new ground. *(Greg Thompson on language learning)*
- 10. Melk is goed voor elk, melk is goed voor elk, maar niet voor Jan, omdat voor hem alleen sojamelk kan. *(Dutch rhyme adapted; "Milk is good for all, milk is good for all, but not for John, because for him only soy milk is allowed")*

Inge Timmers Maastricht, 25th April 2014