

Lesion-symptom mapping of memory functions

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Contributor:	Dr. Wiebke Trost, Dr. Christian Balzer, Prof. Leo Bonati
External collaborator:	Nadia Mock – Universitätsspital Zürich, Prof. Klemens Gutbrod - Inselspital Universität Bern, Prof. Lutz Jäncke - Universität Zürich, Dr. Bianca De Haan - Brunel University London UK
Contact:	w.trost@reha-rhf.ch, c.balzer@reha-rhf.ch
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Short summary:	<p>A cerebrovascular accident (CVA) can compromise memory, which can manifest in focal impairment of various memory functions, depending on the underlying brain lesion. Lesion-symptom mapping (LSM) allows the statistical association of behavioural data with lesion data and permits the identification of the brain structures critical for specific behaviours.</p> <p>In this project, we applied univariate and multivariate LSM in a relatively large cohort of neurological patients with single first-time right- and/or left-hemispheric CVA (ischaemic or haemorrhagic; $n = 145$) to identify which brain structures are crucial for verbal and nonverbal memory functions. We applied a comprehensive neuropsychological test battery comprising several verbal and nonverbal memory tests, thereby providing various memory metrics. This enables us to more precisely delineate the brain areas involved in various aspects of memory performance, including material-specific lateralization of memory function, differential influence of executive functioning and learning strategies.</p>