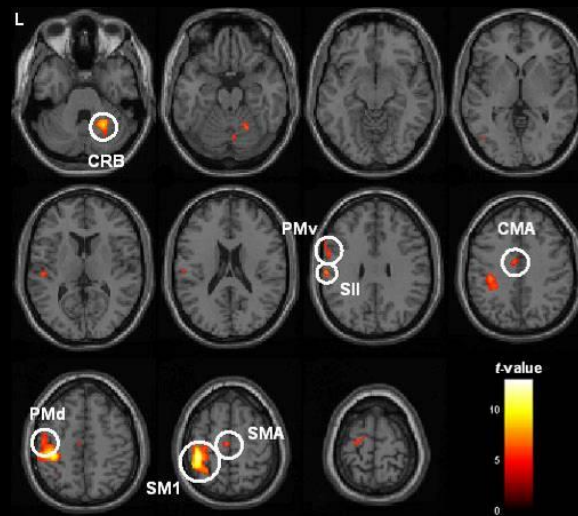


What can brain imaging tell us about neuromuscular disorders?

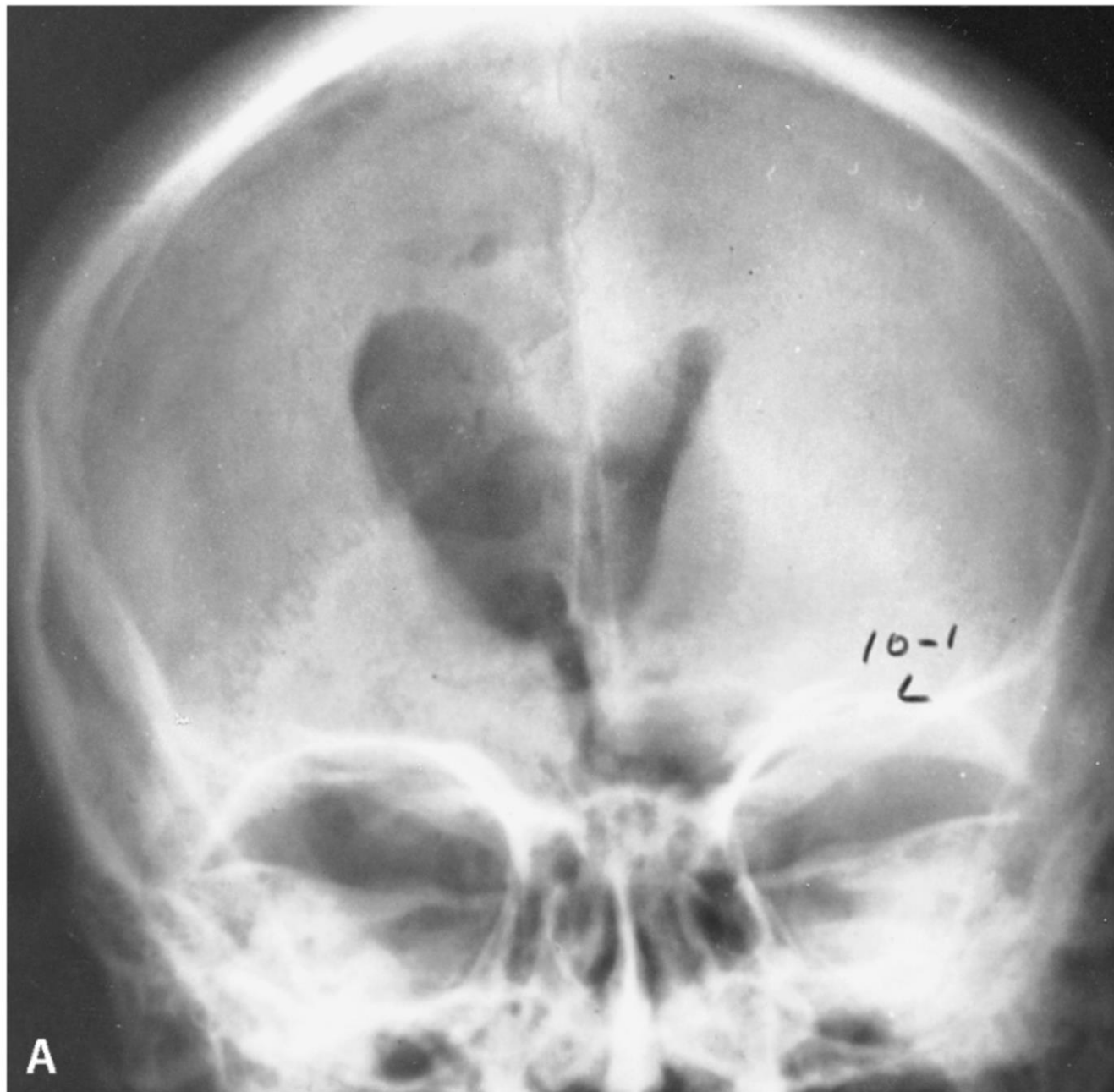


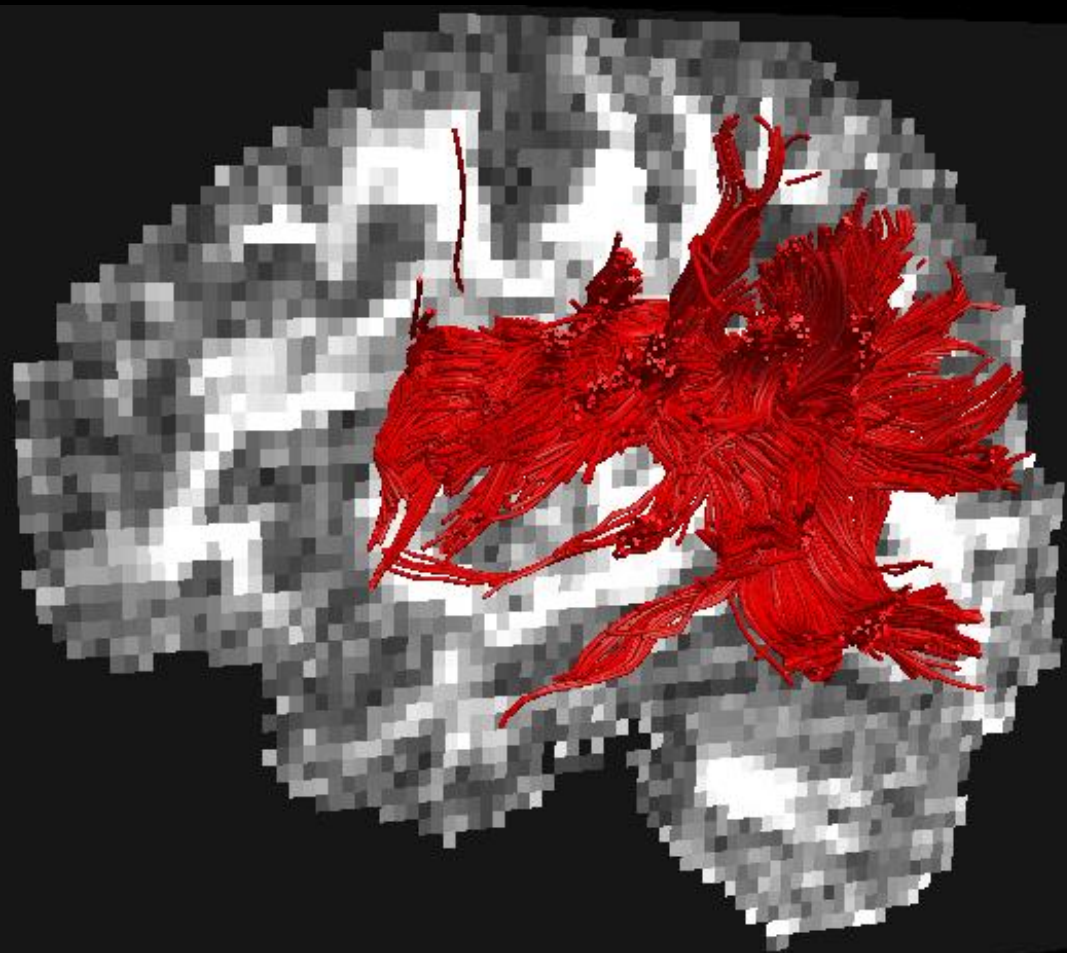
Blaž Koritnik, MD, PhD

Ljubljana ALS Centre, Institute of Clinical Neurophysiology,
University Medical Centre Ljubljana, Slovenia

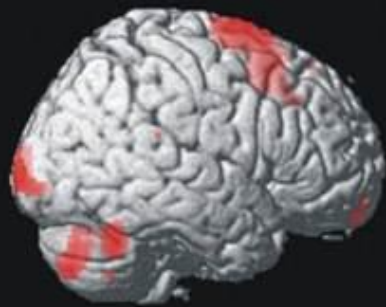
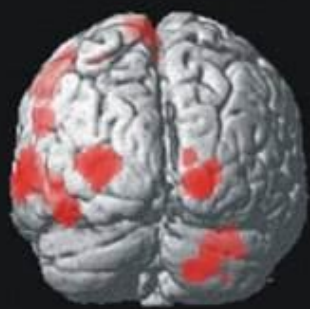
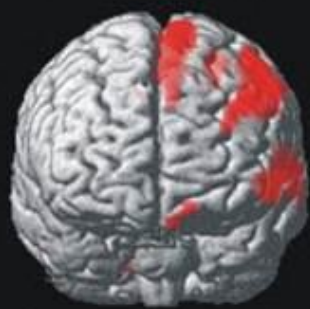
EAMDA Annual General Meeting, Zagreb, 5th October 2013







TRAVA

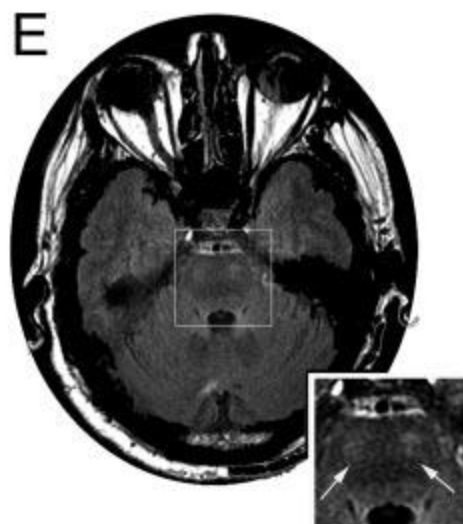
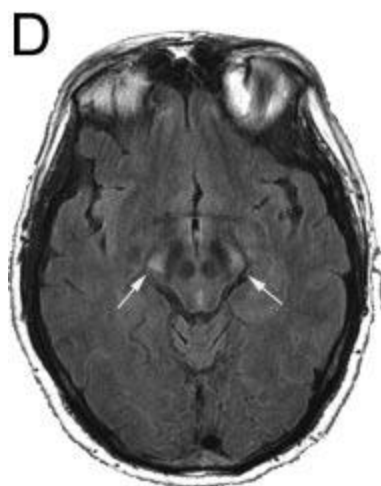
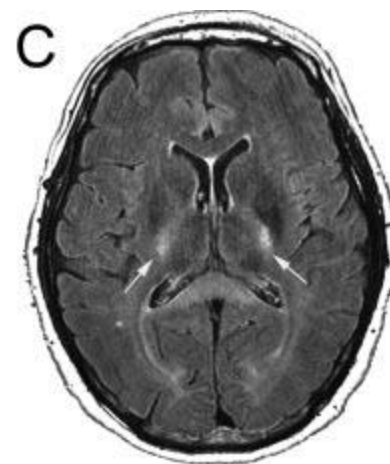
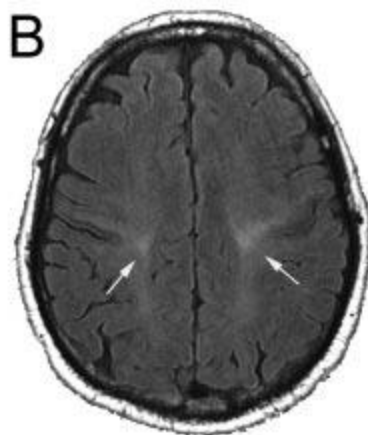
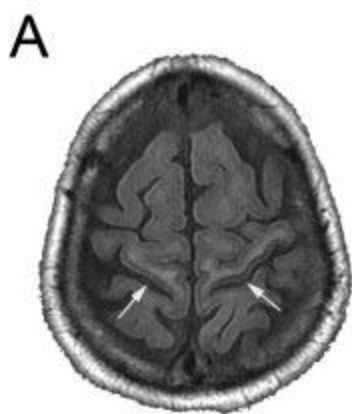


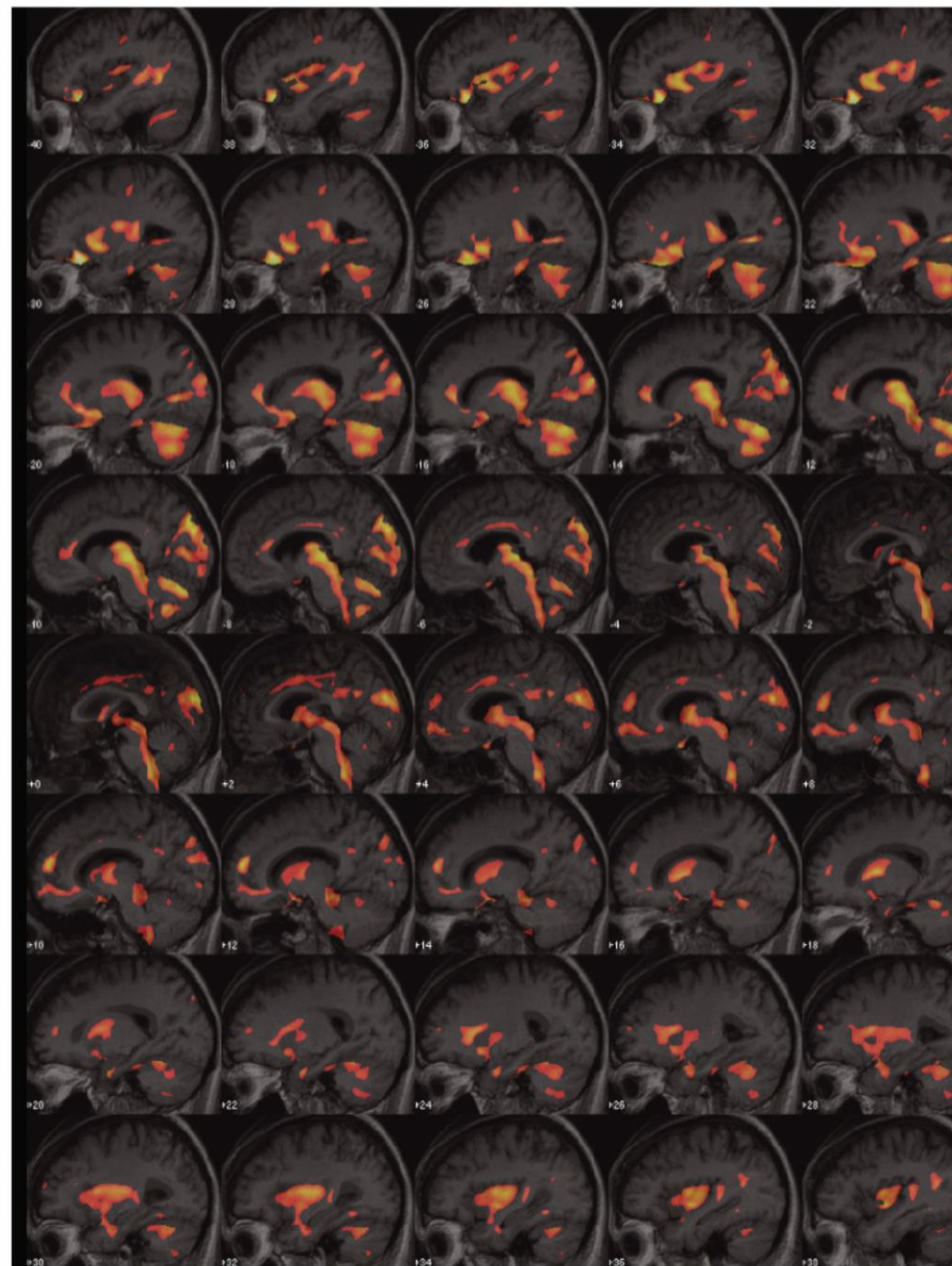
Brain imaging and neuromuscular disorders

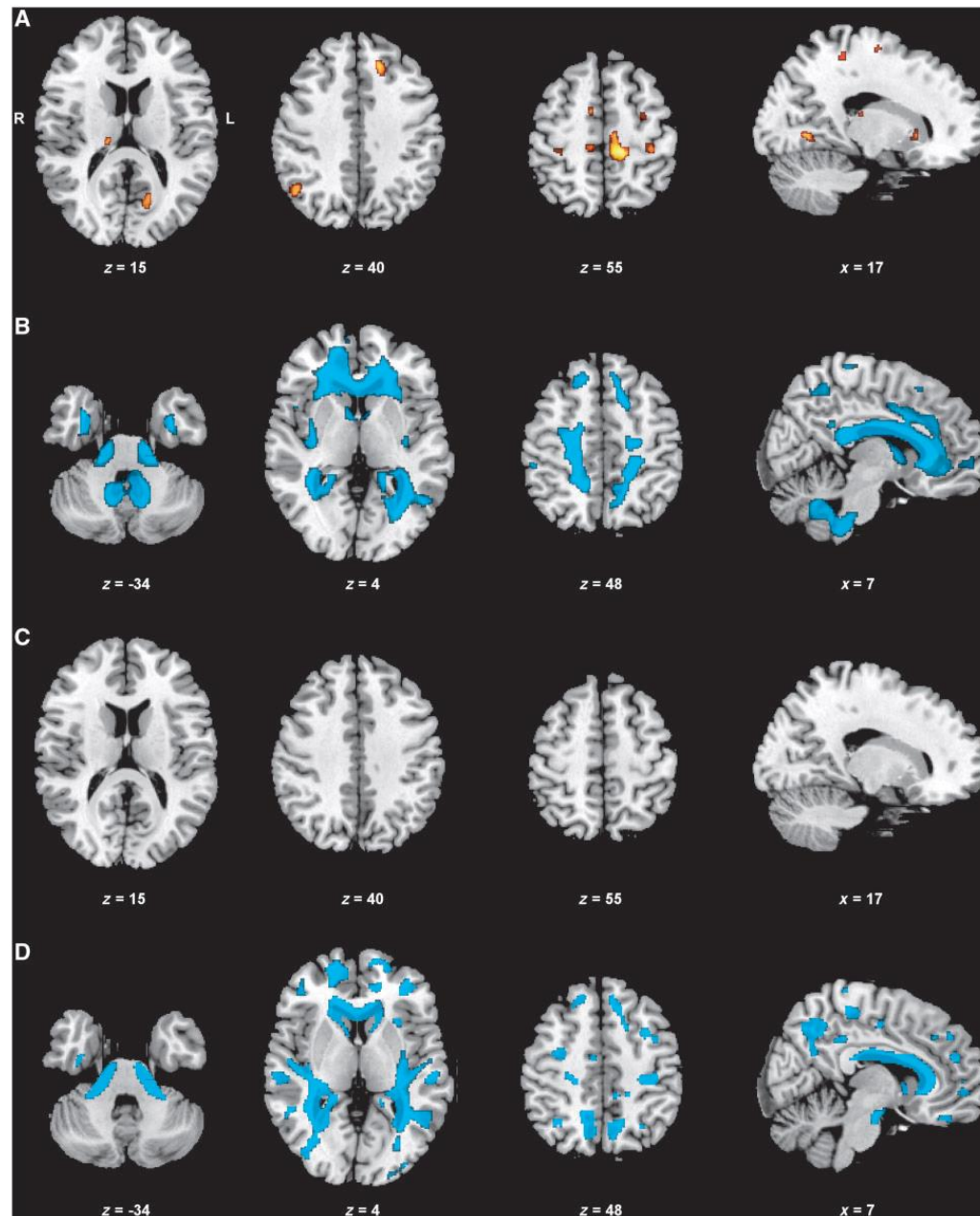
- can we use it to diagnose?
- can we use it to understand?
- can we use it to improve?

Brain imaging and neuromuscular disorders

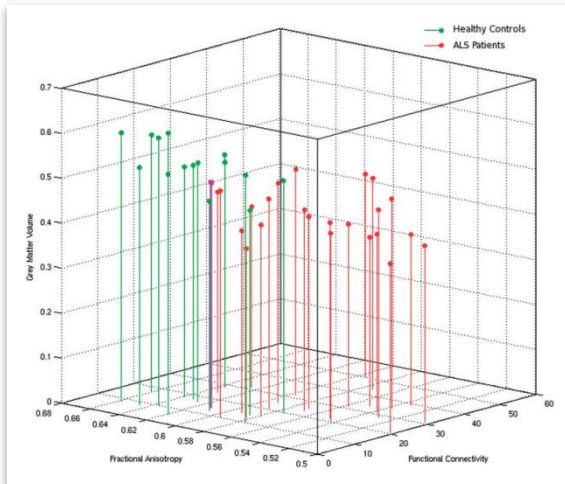
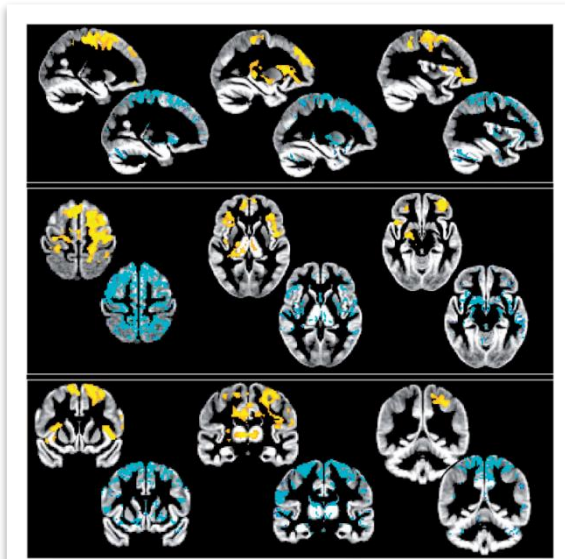
- can we use it to diagnose?
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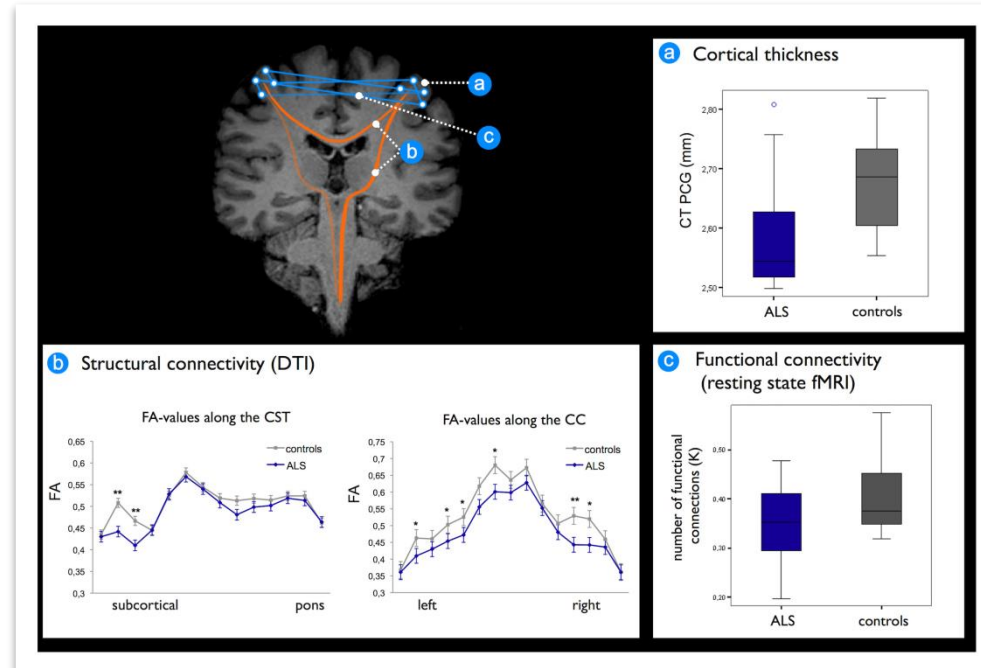




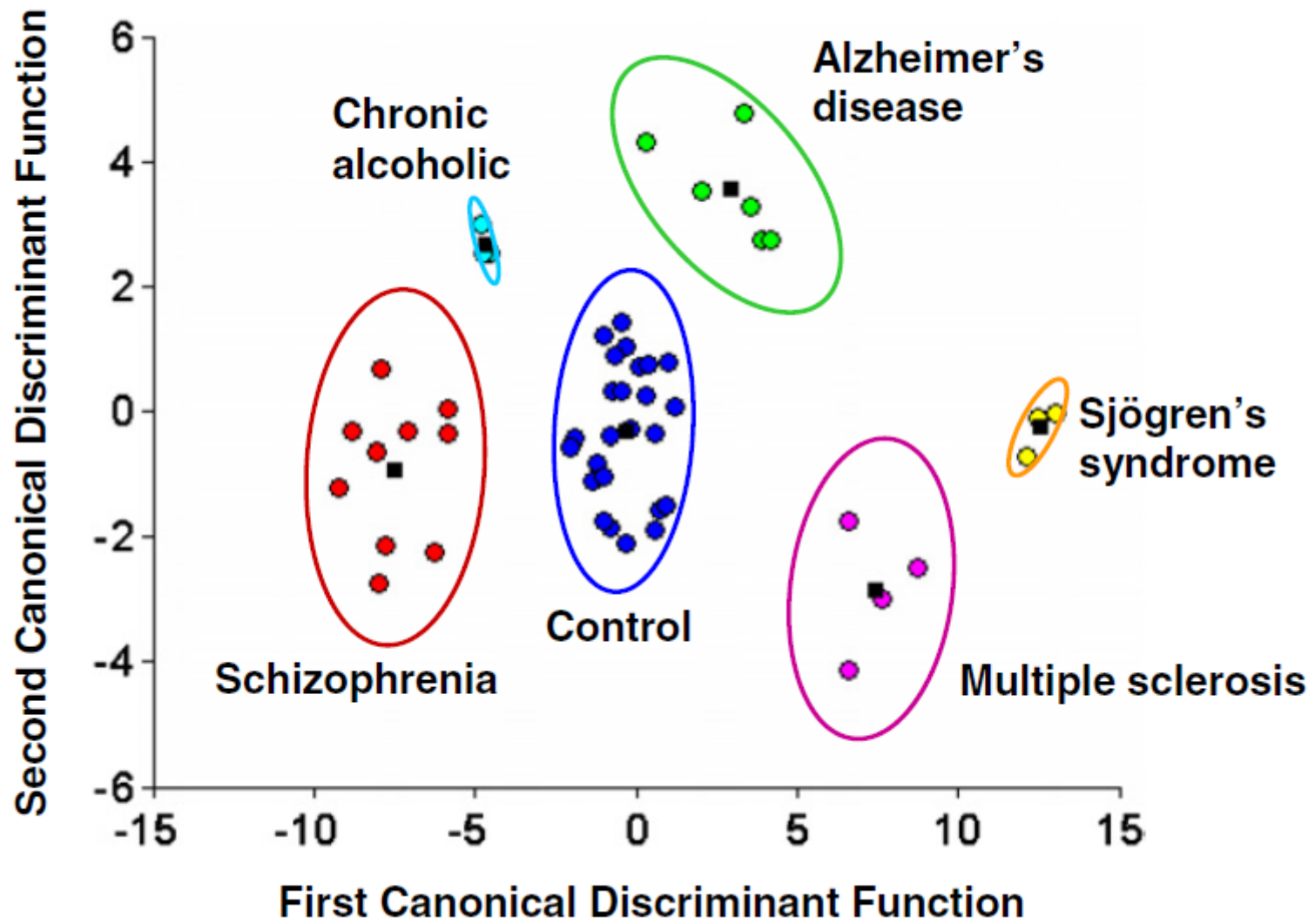
Multimodal MRI



Douaud et al., Brain 2011

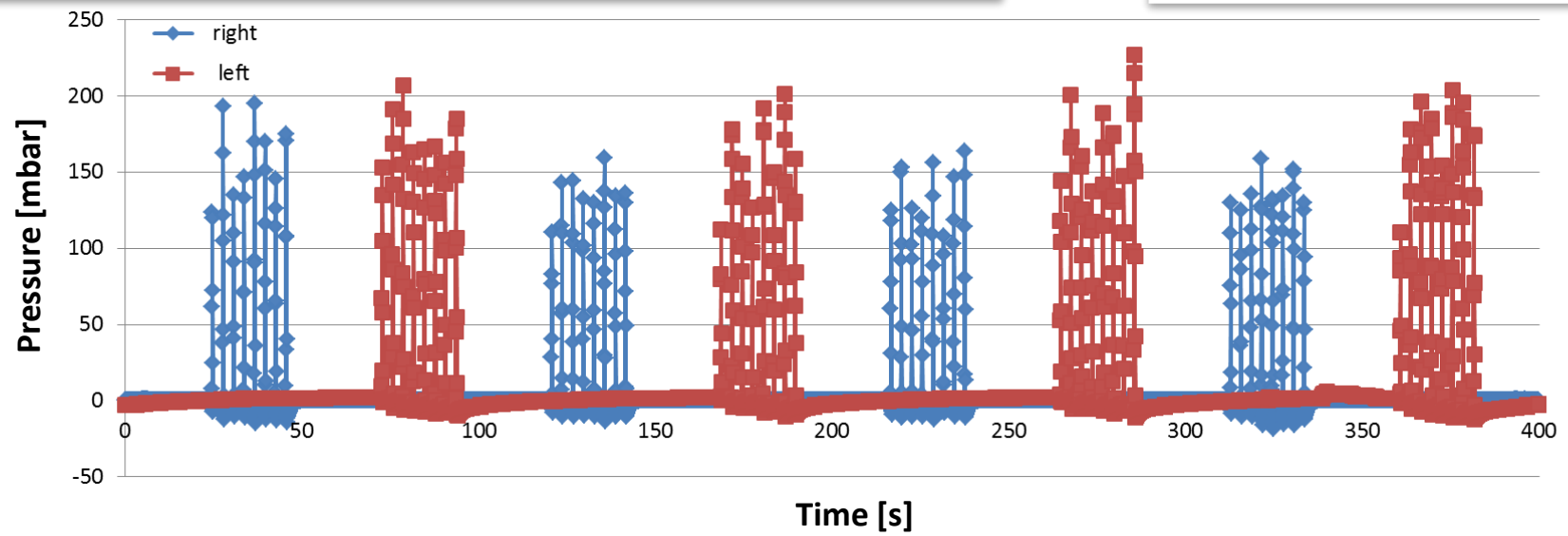
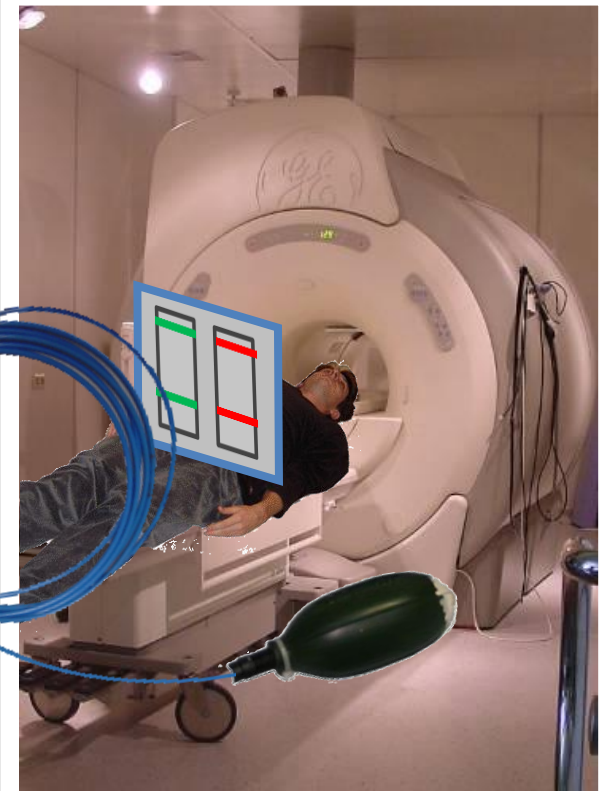
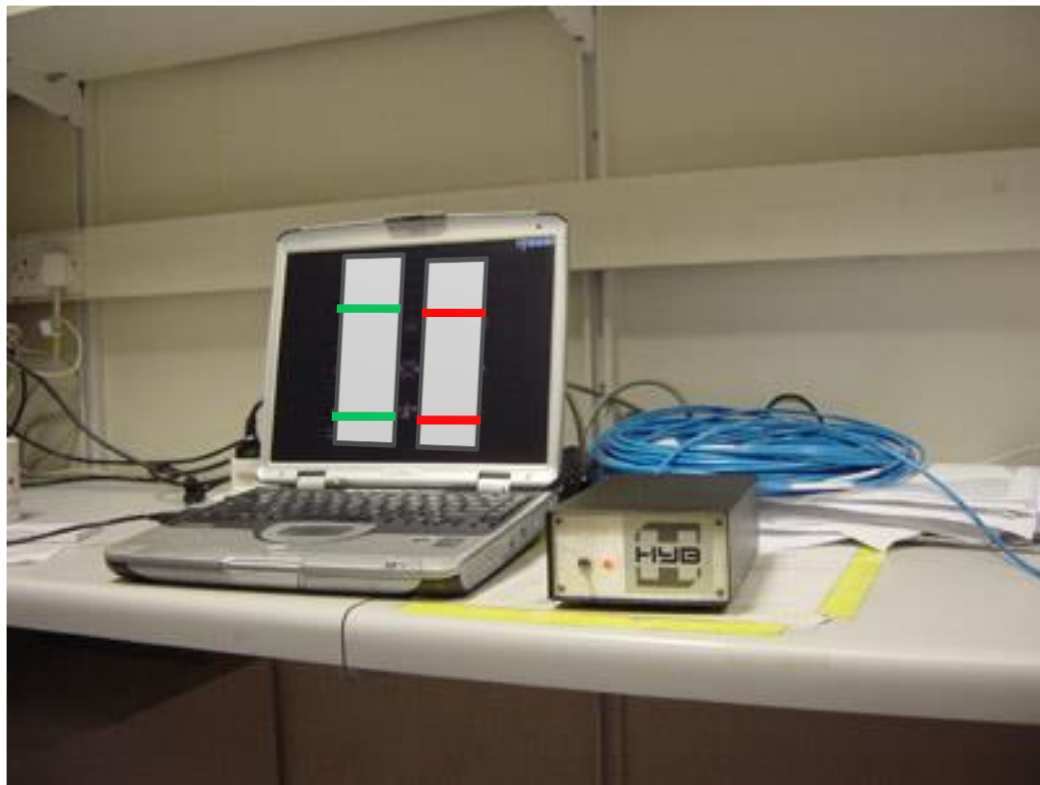


Verstraete et al., 2010

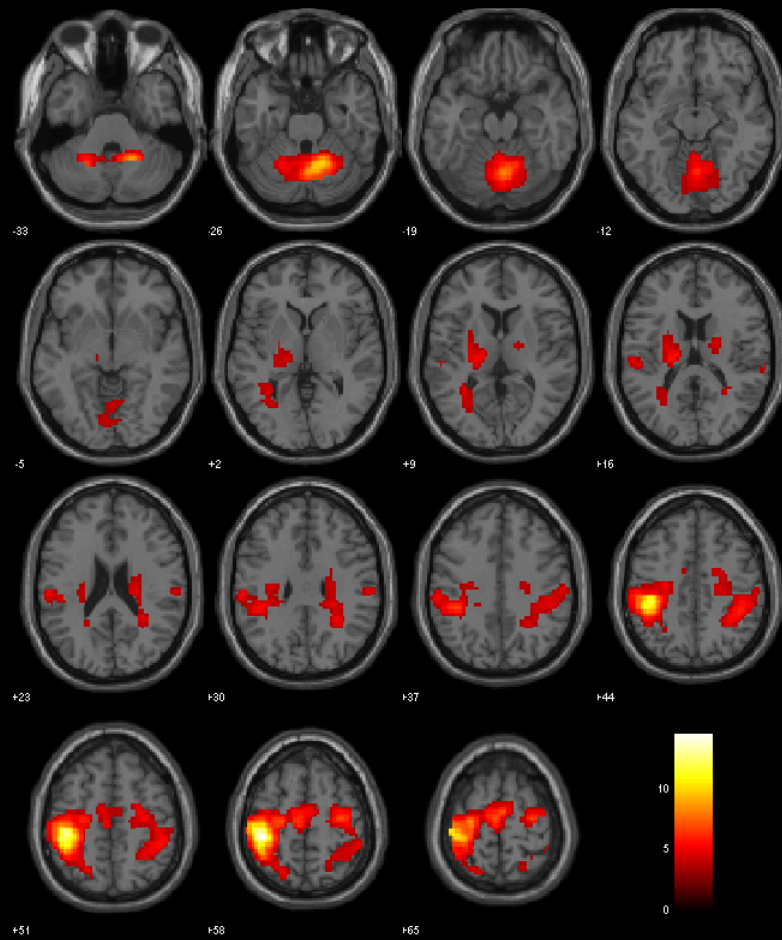


Brain imaging and neuromuscular disorders

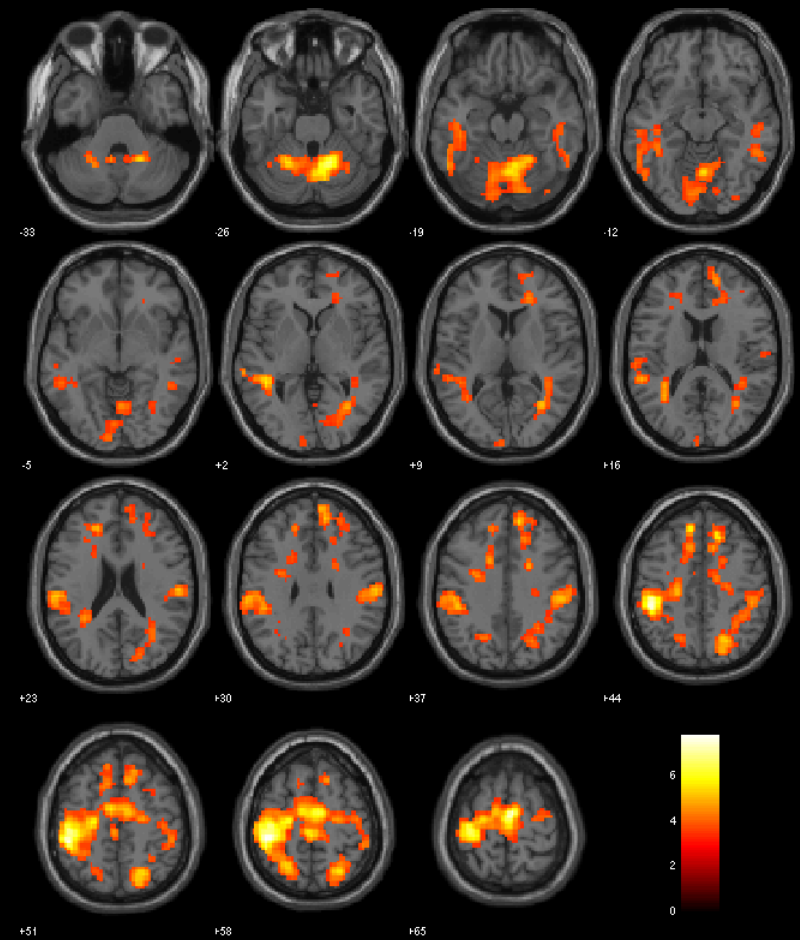
- can we use it to diagnose?
- can we use it to understand?
- can we use it to improve?



Functional MRI: motor

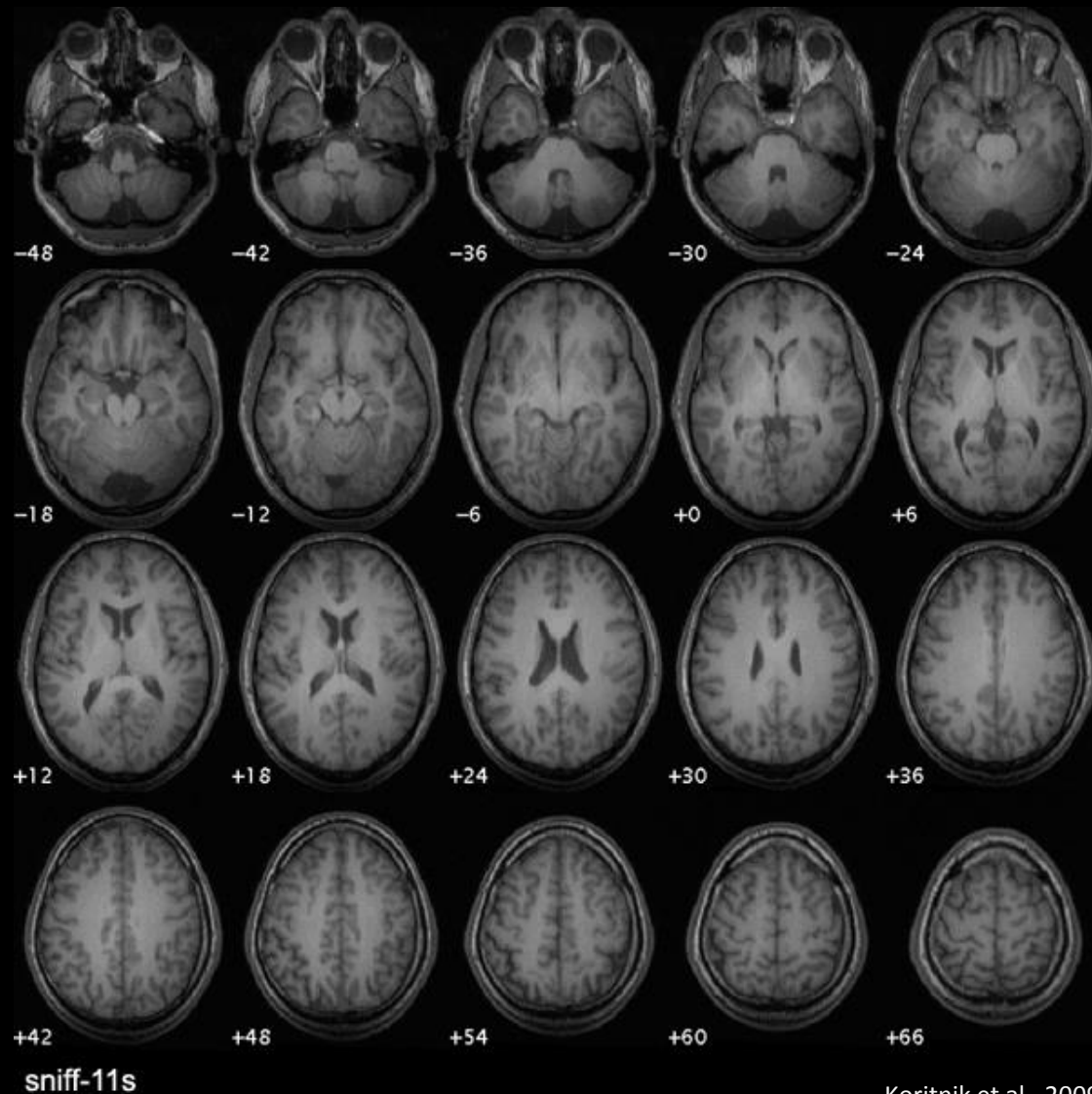


controls



ALS

Functional MRI: breathing



Koritnik et al., 2009

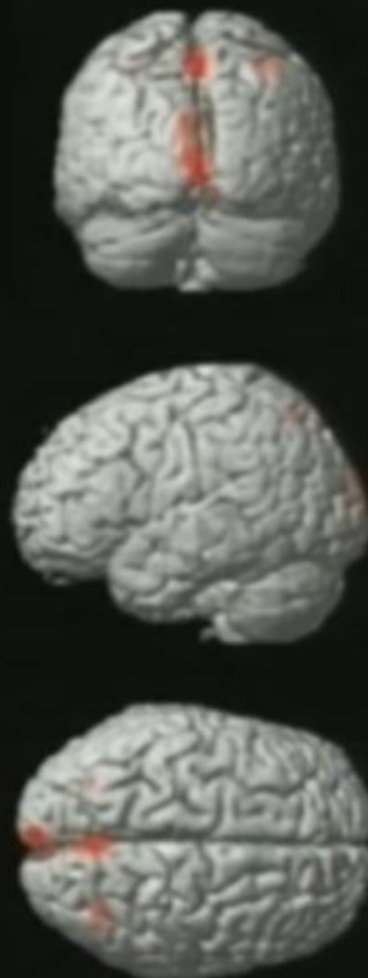
Brain imaging and neuromuscular disorders

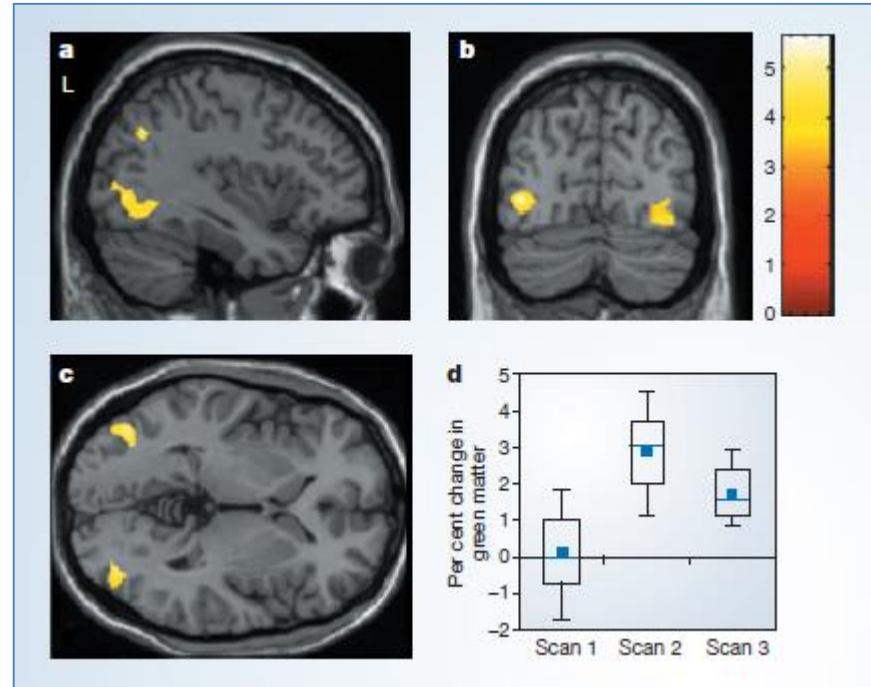
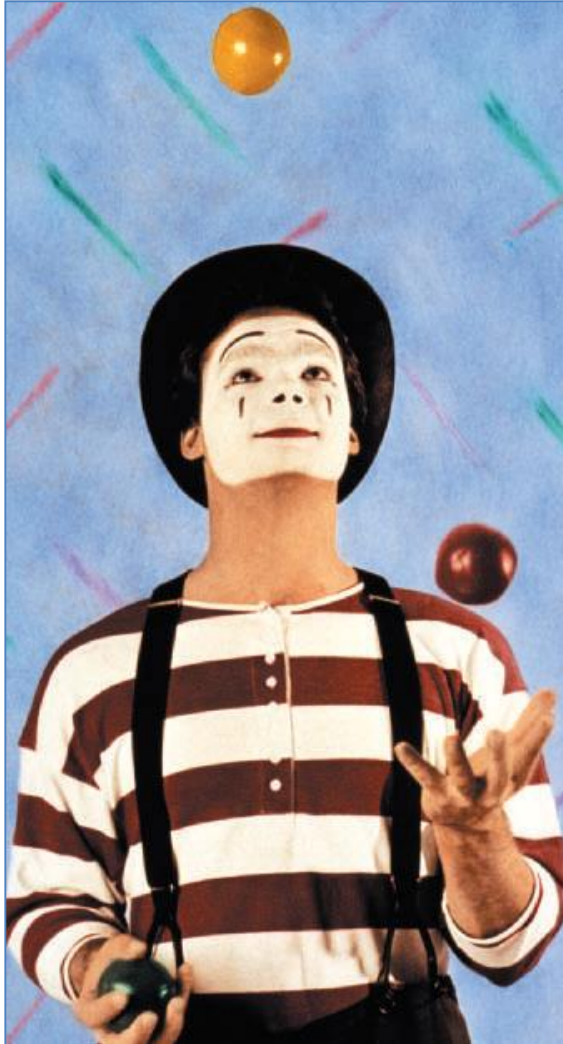
- can we use it to diagnose?
- can we use it to understand?
- can we use it to improve?

BEFORE



AFTER





Draganski et al., Nature 2004



