

Welcome !

Master

Neuropsychology

24 March 2018

Sven Stapert

Faculty of Psychology and
Neuroscience

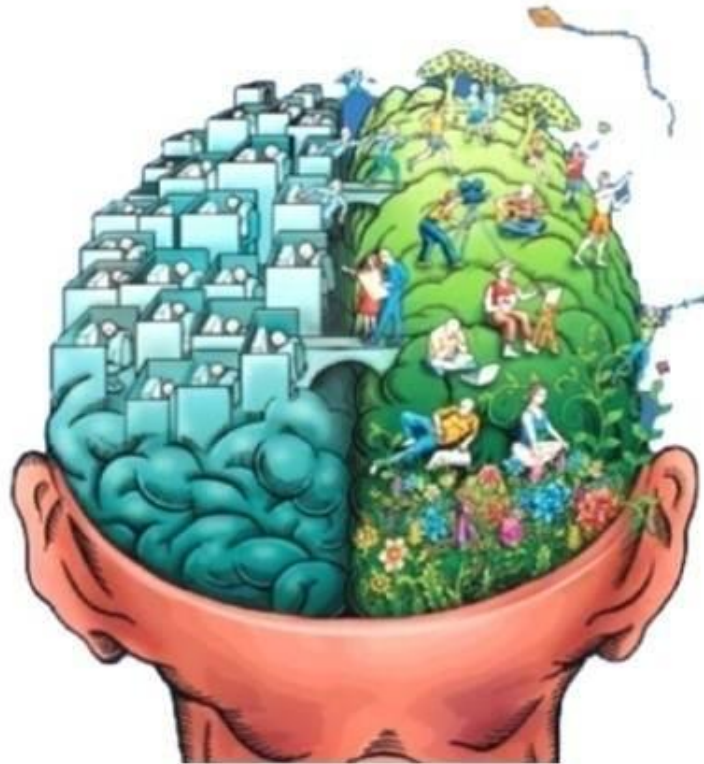
Department of Neuropsychology
and Psychopharmacology



Maastricht University



Neuro-Psychology?



a specialist in cognition and behaviour

Neuropsychology

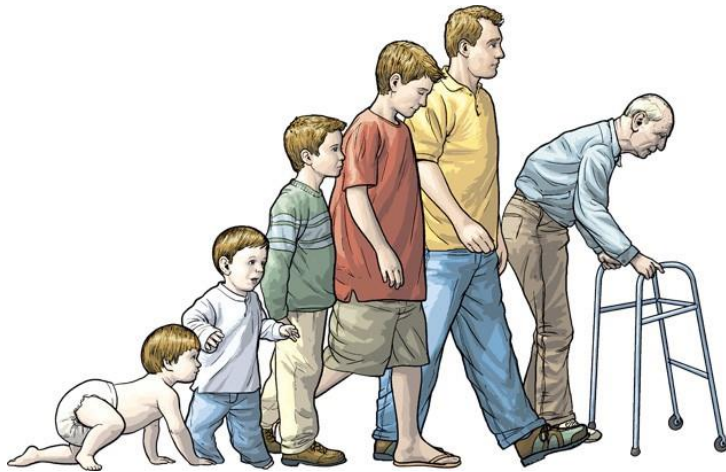
Brain and Behaviour



Study of brain behaviour relationship(s)
trying to understand how the human brain processes information
that result in psychological processes and behaviour

Neuropsychology

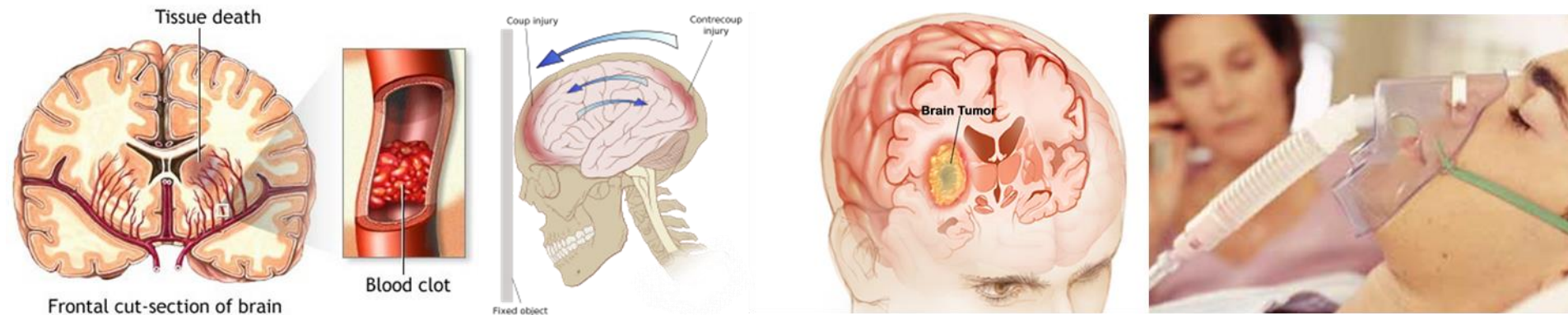
Brain and Behaviour



Normal, healthy brains and lifespan development

Neuropsychology

Brain and Behaviour



Consequences of acquired brain injury

Neuropsychology

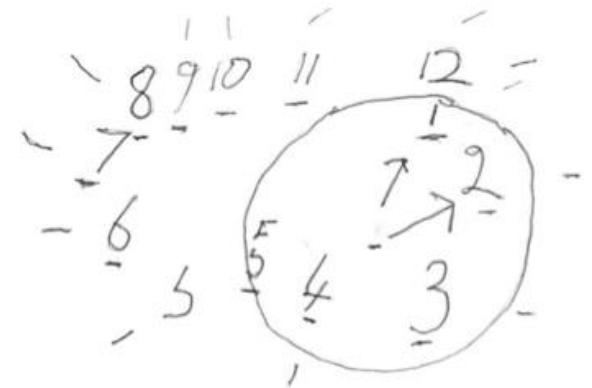
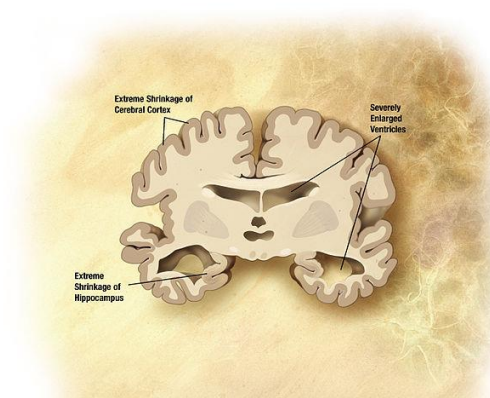
Brain and Behaviour



Developing, exploring and learning

Neuropsychology

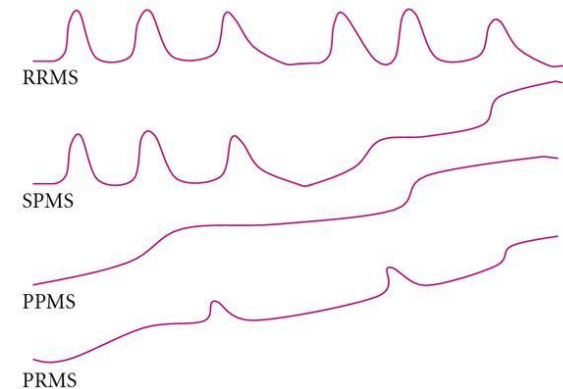
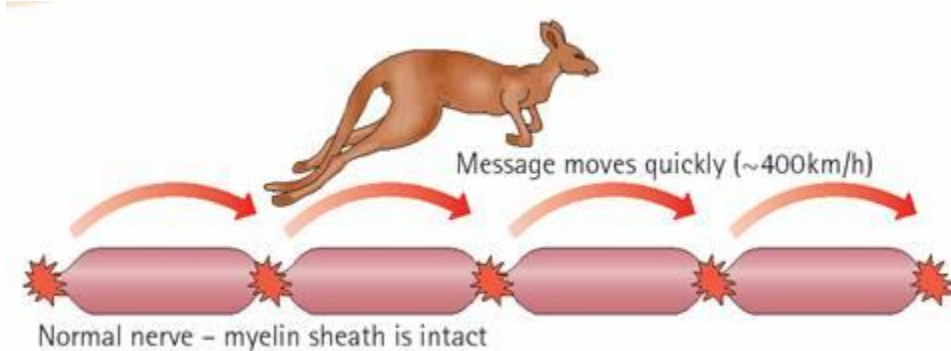
Brain and Behaviour



Brain disease(s)

Neuropsychology

Brain and Behaviour



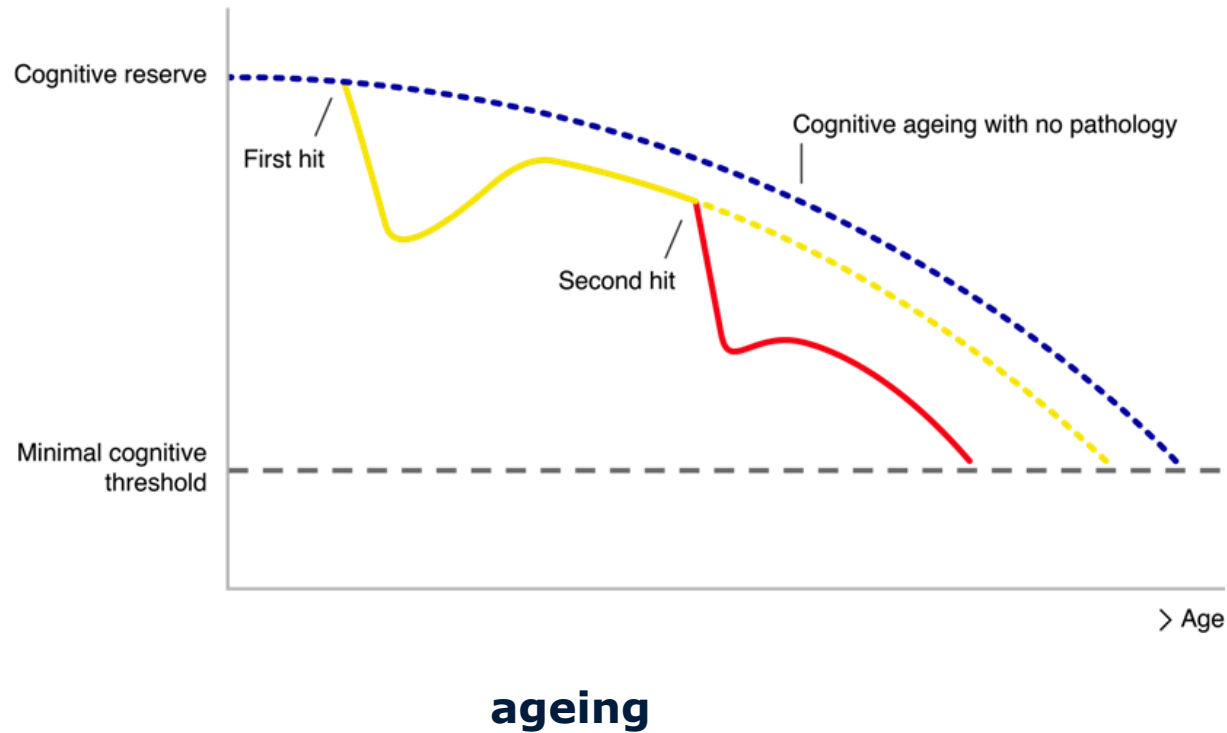
Clinical subtypes of MS

Brain disease(s)

Neuropsychology

Brain and Behaviour

Graphical Representation of Accelerated Cognitive Ageing



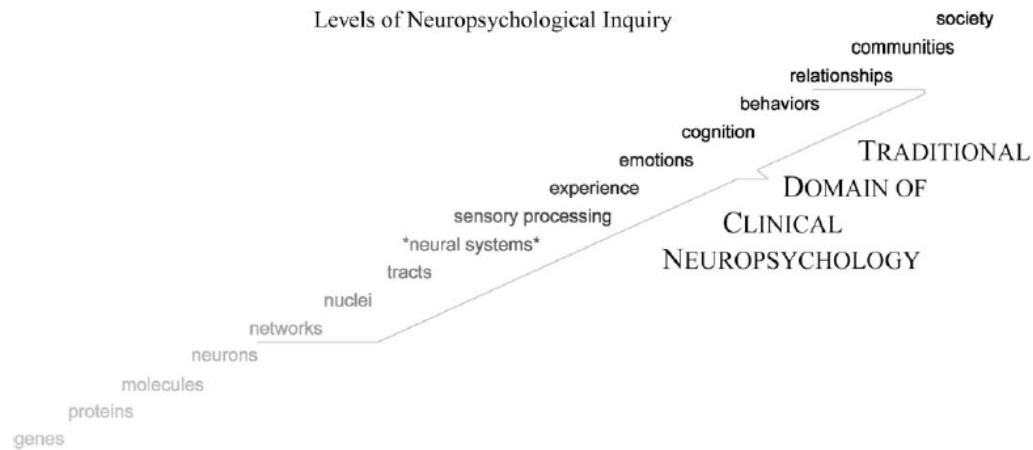
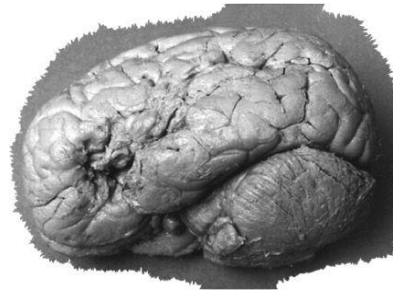
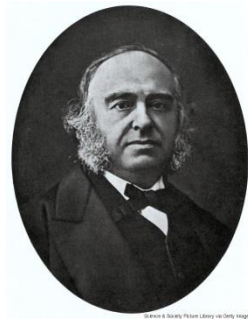
Neuropsychology

Brain and Behaviour

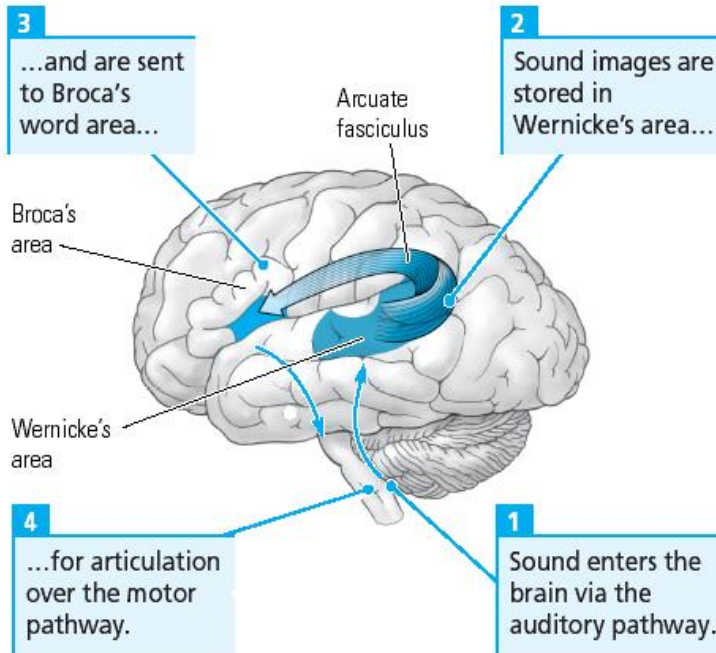
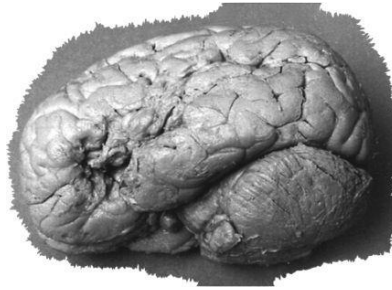


Protecting, enhancing and cognitive training

A history of a young psychology discipline

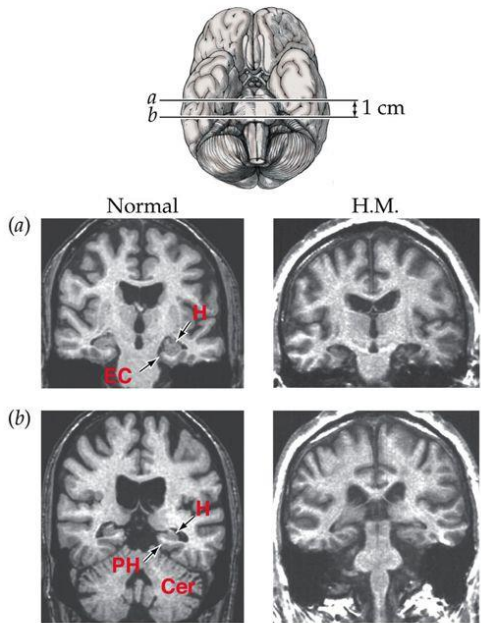


A history of a young psychology discipline

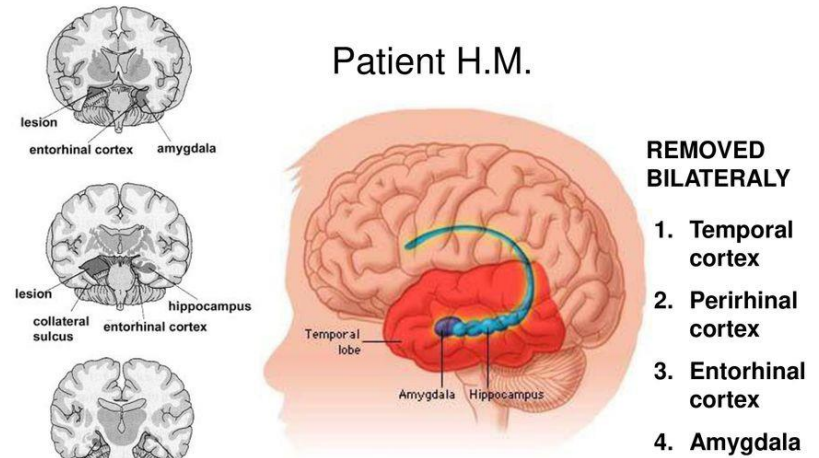
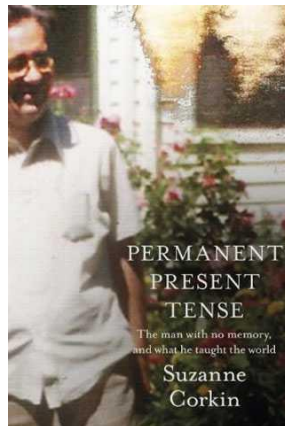


A history of a young psychology discipline

Figure 17.1 Brain Tissue Removed from Henry Molaison (Patient H.M.)



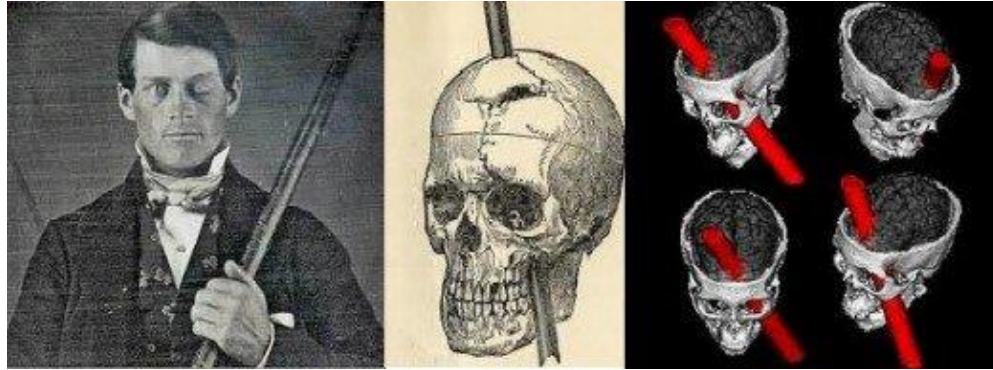
Biological Psychology 6e, Figure 17.1



Dr. Scoville removed a large chunk of Henry's right and left temporal lobes, which was a crucial decision because the brain is symmetrical and thus most important structures are duplicated. Altogether, Henry lost about a fist-sized portion of his brain, which encompassed (on both sides) the hippocampus, the amygdala, and the entorhinal and perirhinal cortices.

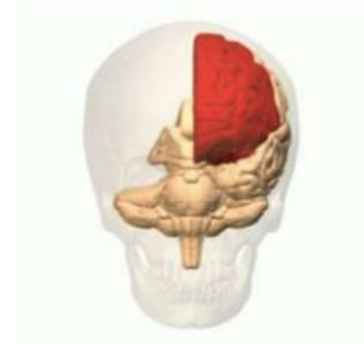


A history of a young psychology discipline

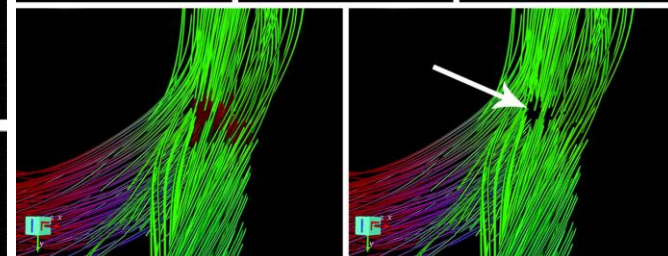
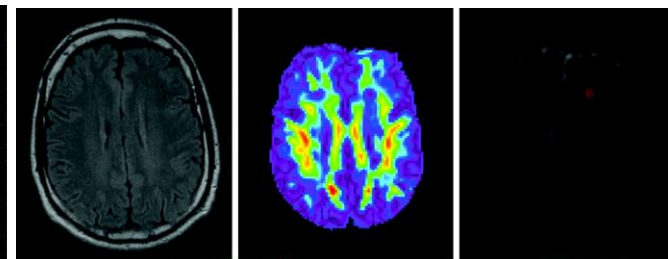
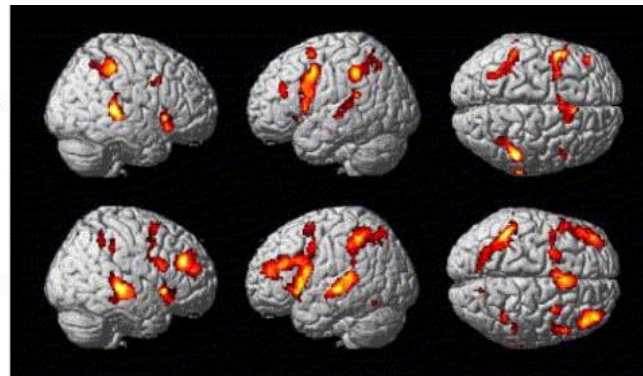
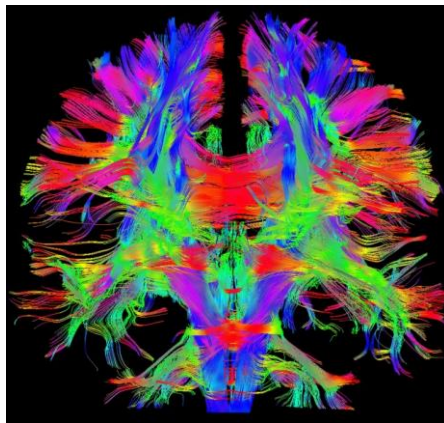
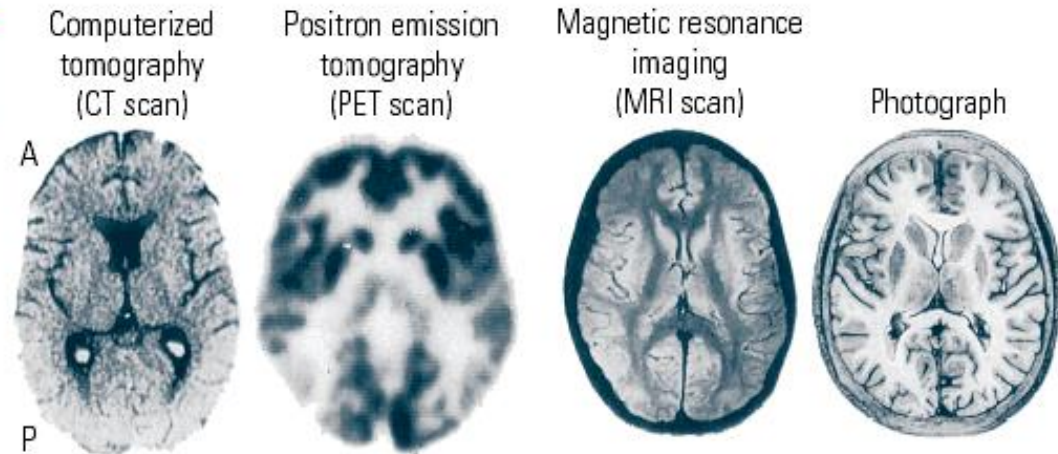
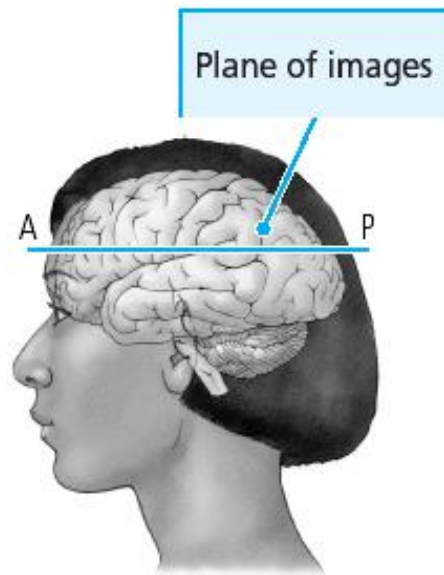


The Injury

The iron rod destroyed the majority of Gage's left frontal lobe, an area of the brain responsible for our emotions, personality, and language related movements. The ventromedial region of the frontal lobe was damaged, mostly on the left side.



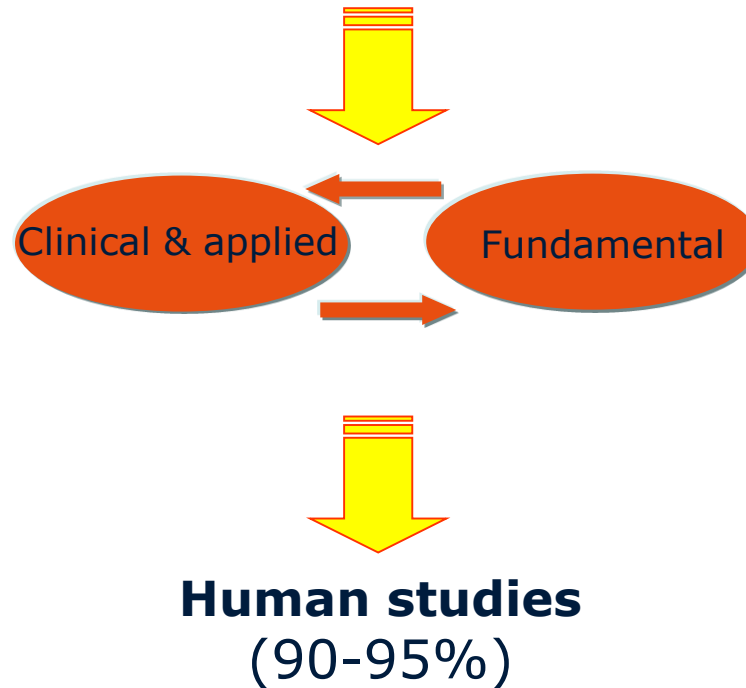
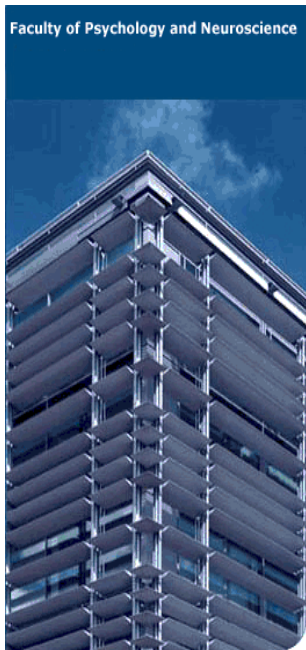
How the brain relates to (ab)normal behaviour



Master Neuropsychology

Interdisciplinary specialisation
involving:

Experimental- and Clinical Neuropsychology,
Psychiatry, Neurology & Psychopharmacology



Specialisation Neuropsychology (1 year)

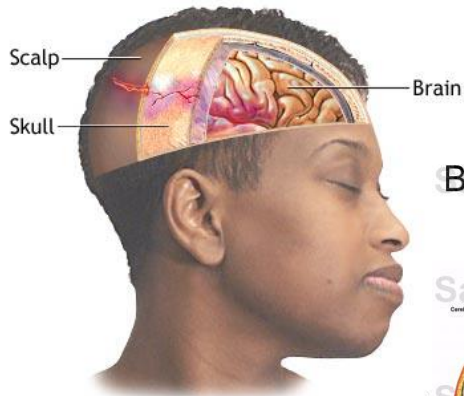
- Core courses; 4x
- 3 Practicals
- Research internship & Master thesis
or
- Clinical internship & Master thesis



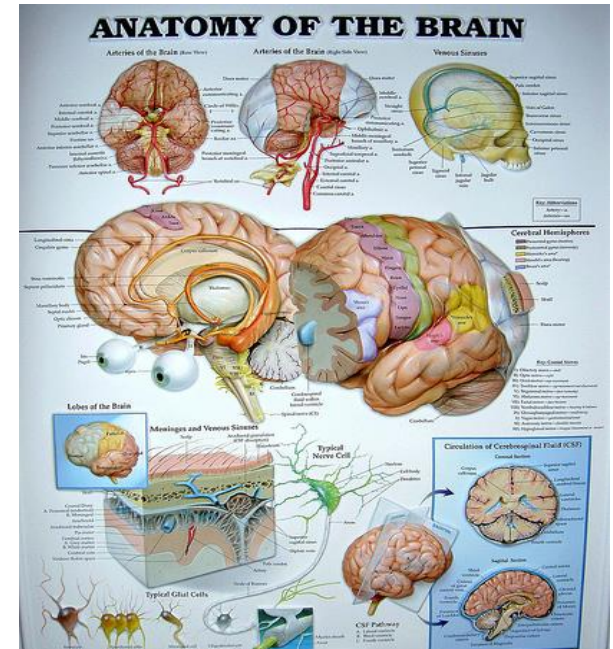
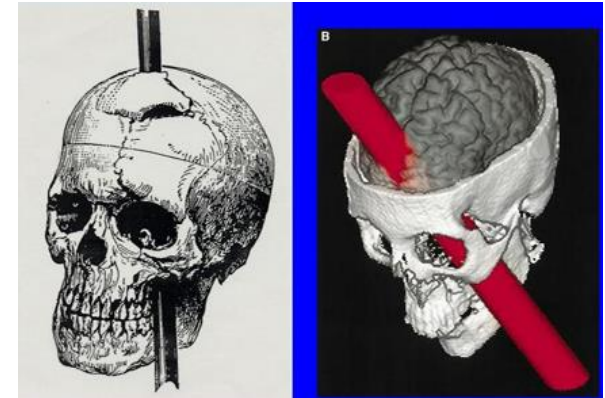
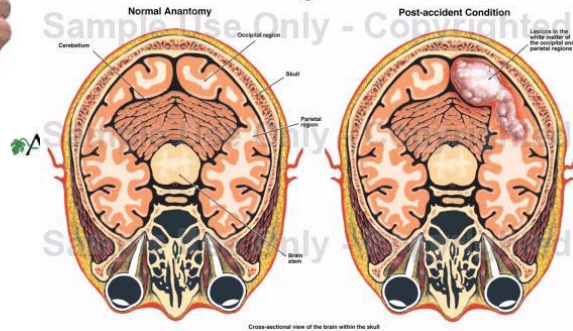


Prof Dr. Sonja Kotz
FPN, NP&PP UM

Brain Damage



Brain Damage - Injury with Lesion in the Occipital and Parietal Regions

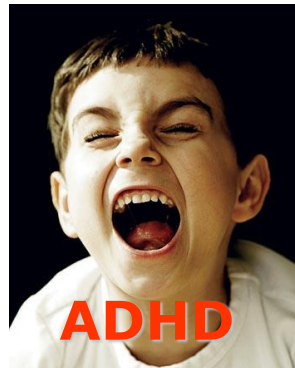




Dr. Kim Kuypers
FPN, NP&PP UM

Behavioural disorders

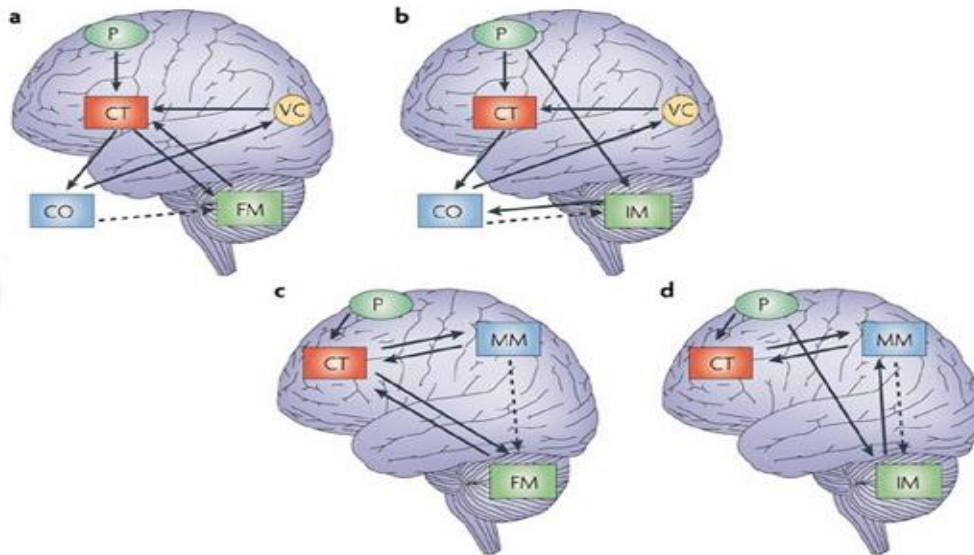
Behavioural manifestations of neurological, neuropsychiatric
and developmental disorders





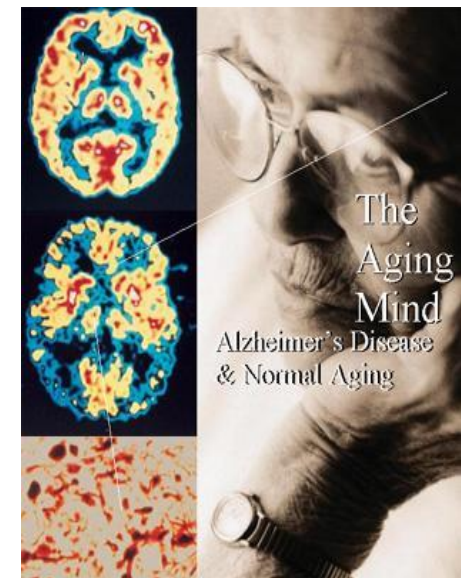
Dr. Lisbeth Evers
FPN, NP&PP UM

Arousal & Attention

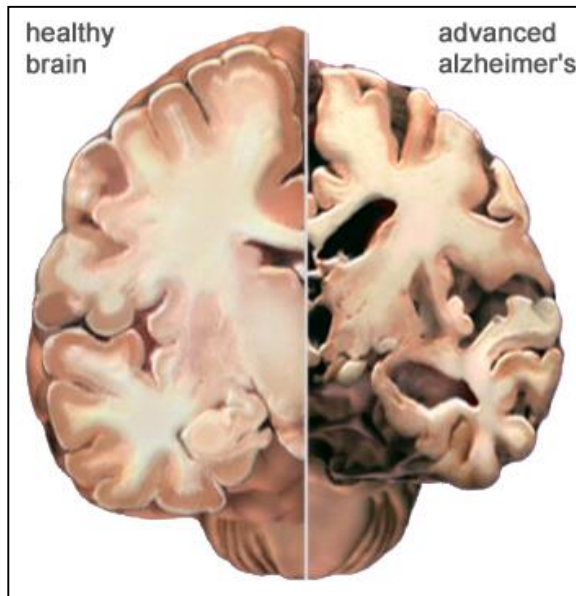




Dr. Martin van Boxtel
FHML, UM



Cognitive ageing



Specialisation Neuropsychology (1 year)

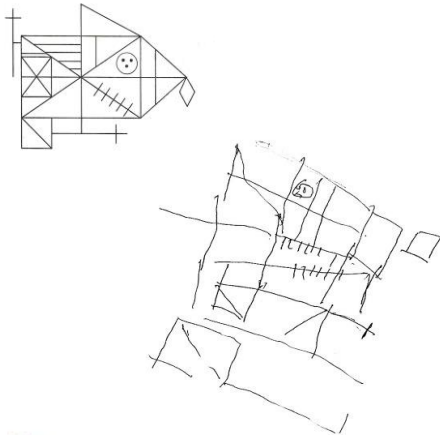
- Core courses
- Practical/skill trainings
- Research internship and Master thesis
or
- Clinical internship and Master thesis



Practicals

- Neuropsychological Assessment
- Basic Clinical skills
- Basic Cognitive Psychological Research Skills

Knowledge and skills related to diagnostic instruments (tests, questionnaires) and procedures (conversation and observation techniques) and decision making procedures.



Specialisation Neuropsychology (1 year)

- Core courses; 4x
- Practicals/ skill trainings
- Research internship and thesis
- Clinical internship and Master thesis



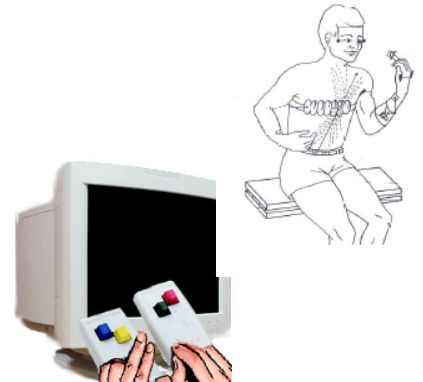
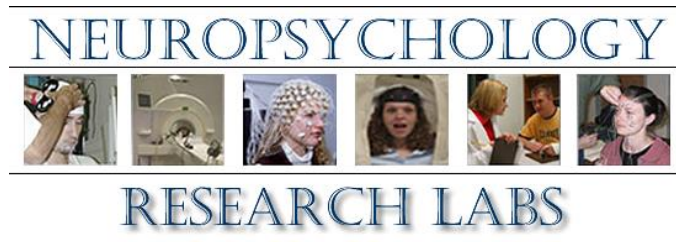
Internship and Master thesis: Research or Clinical ?

- Full research internship
6 months
- Master thesis
- Clinical internship
4 months
- Clinical activities report
- Health care certificates
- Clinical research part
2 months
- Master thesis

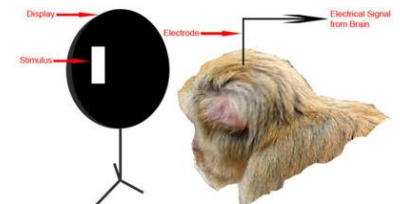
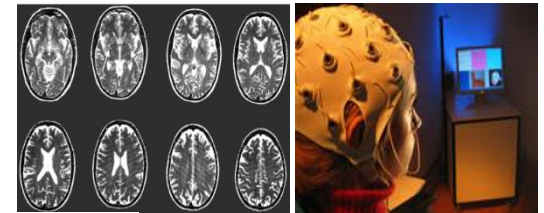
Internships

All thinkable areas in Neuropsychology

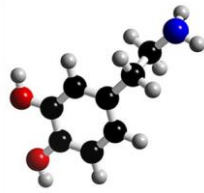
- Methods: neuropsychological tests, imaging techniques (fMRI), and psychophysiology



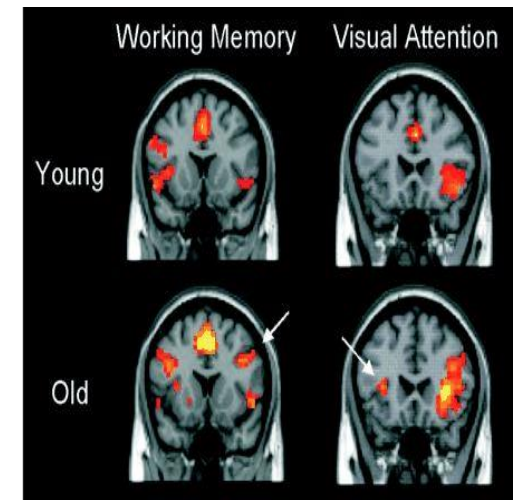
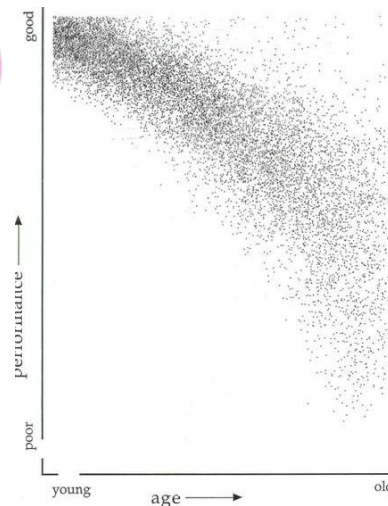
- Cognitive domains:
 - attention
 - memory
 - perception
 - motor control
 - emotion/affection



UM Internal internships



Nerves Kick In:
You have a slight perspiration problem.



Limburg Brain Injury Centre



Expertisecentrum
Hersenletsel
Limburg

Samenwerkingsverband



hersenletsel.nl



adelante



SJG



VieCuri



laurentius



SGL



zuyderland



zuyderland



Maastricht UMC+



Maastricht University
Faculty of Psychology and Neuroscience



Does the fear avoidance model explain persistent symptoms after traumatic brain injury?

Melloney L. M. Wijenberg, Sven Z. Stapert, Jeanine A. Verbunt, Jennie L. Ponsford & Caroline M. Van Heugten

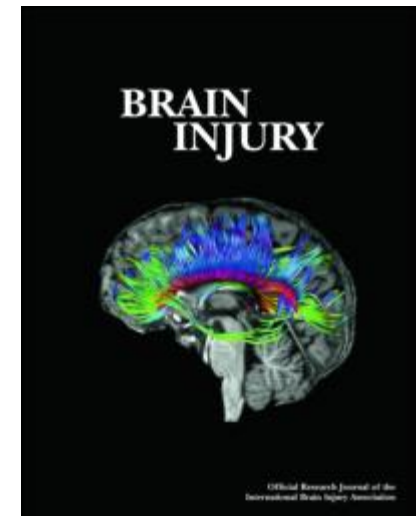
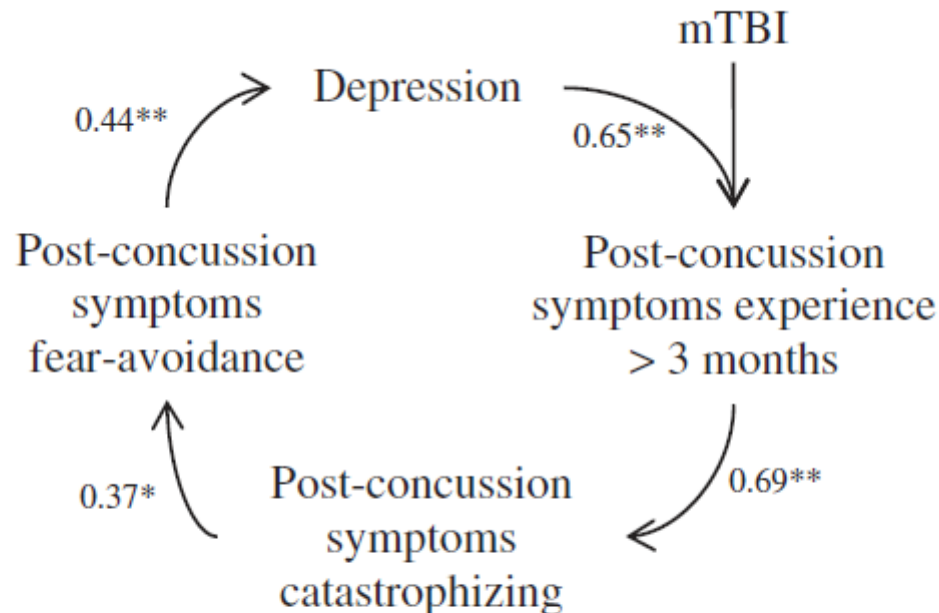


Figure 2. Fear avoidance model in patients with mTBI, a sub-group ($n = 31$).

Notes. Values shown are Pearson correlations and based on cross-sectional data.

$^{**} p < 0.01$.

A Master degree in Neuropsychology: Wat are the consequences?

- Flexibility !
- A job as a clinician, a researcher or a combination of both.
- Work with different subjects: Children, Adults, Patients, Healthy Volunteers, Animals etc.



Possible professional fields

- Institutes for health care: (psychiatric) hospitals, rehabilitation centers, nursing homes, mental health clinic
- Scientific research and education: universities, research institutes (e.g., TNO, RIVM, NWO), industry (e.g., pharmaceutical or food companies)
- Policy making: governmental institutes
- Regular and special education (e.g., schools advisory service)



Option with further training

- PhD programme
- Post-doctoral training such as the “GZ-opleiding”
- Klinisch (neuro)psycholoog



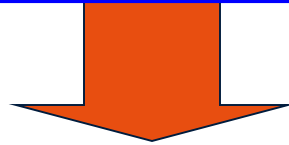
PhD follow-up....

- A paid job!
- 48 months research
- Additional courses
- Writing a thesis
- Research career

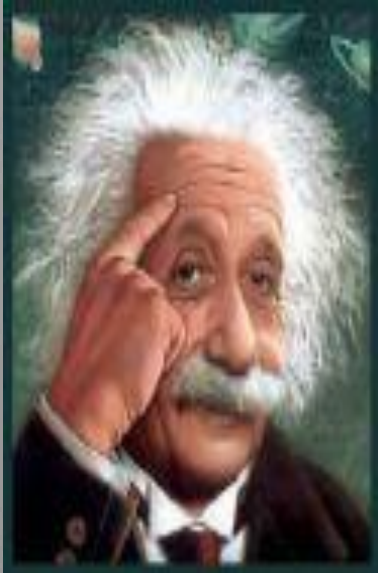


Post-master training in healthcare

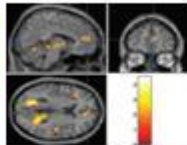
Post-master training in Psychology



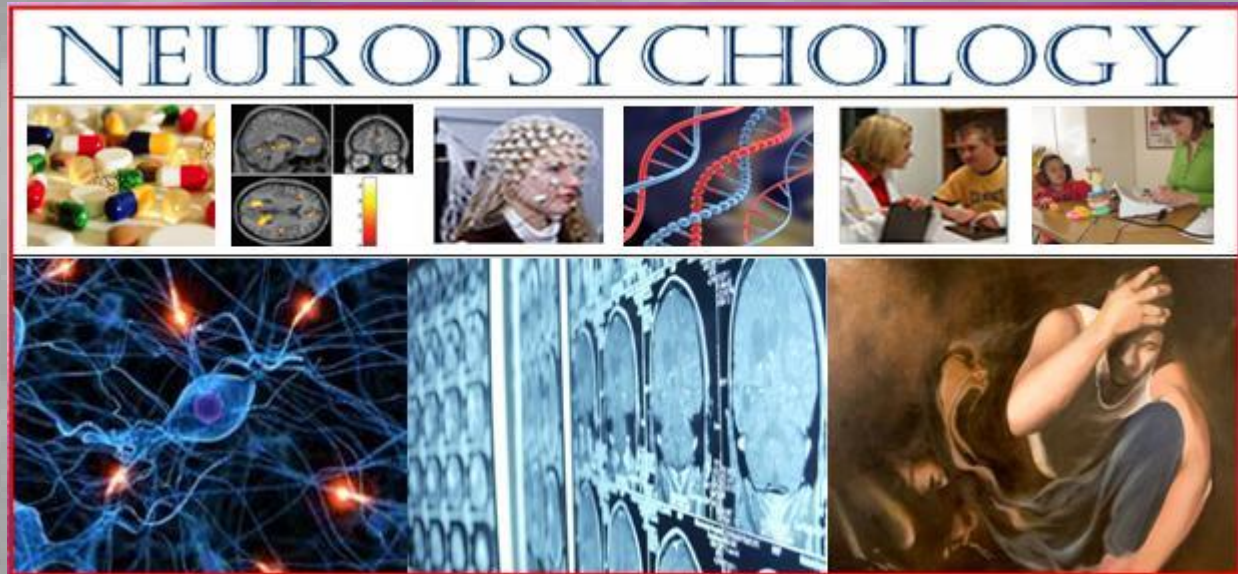
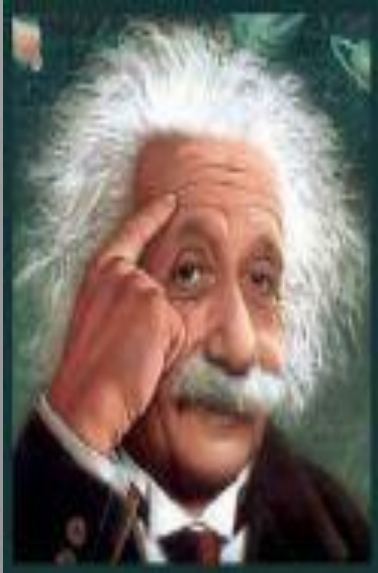
- Healthcare (Gz) Psychologist (2 years)
- Clinical Psychologist (4 years following Gz)
- Clinical Neuropsychologist (4 years following Gz)
- Psychotherapist (4 years following Ma or 2,5 years following Gz)



NEUROPSYCHOLOGY



Choose wisely...



Choose Neuropsychology!
Hope to see you soon

