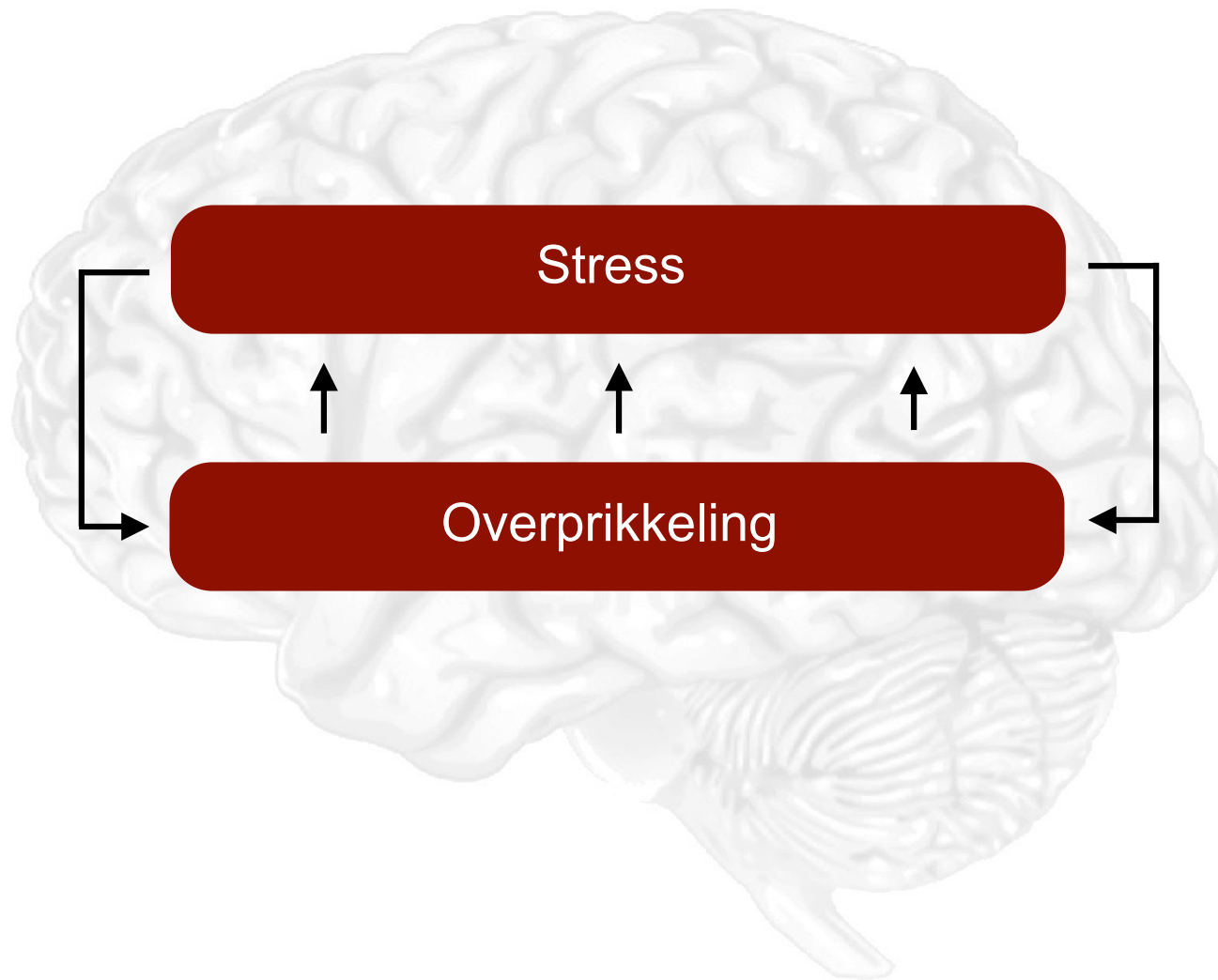




13 Februari 2020, Ede: Congres Overprikkeling

erno.hermans@donders.ru.nl







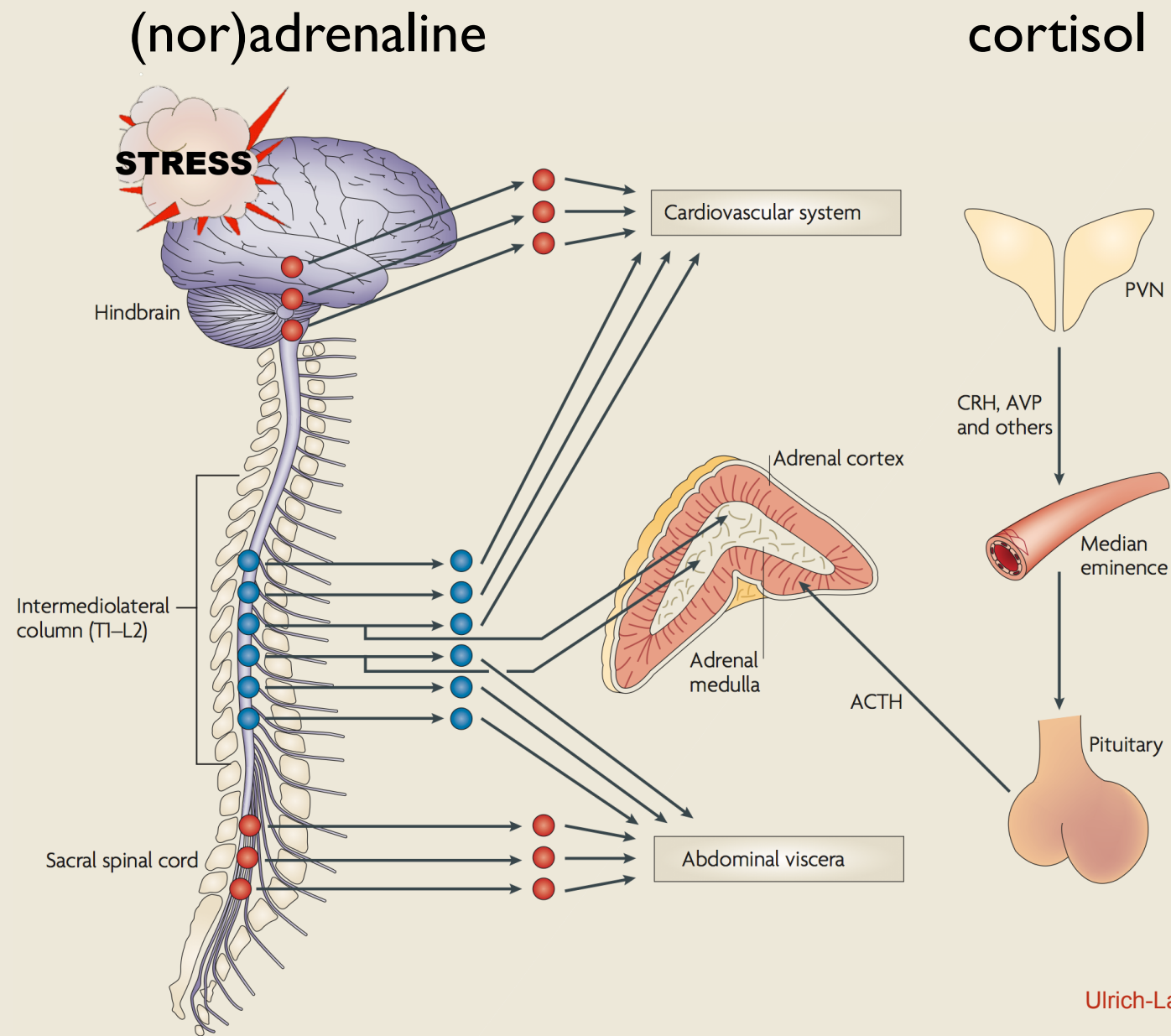


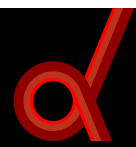


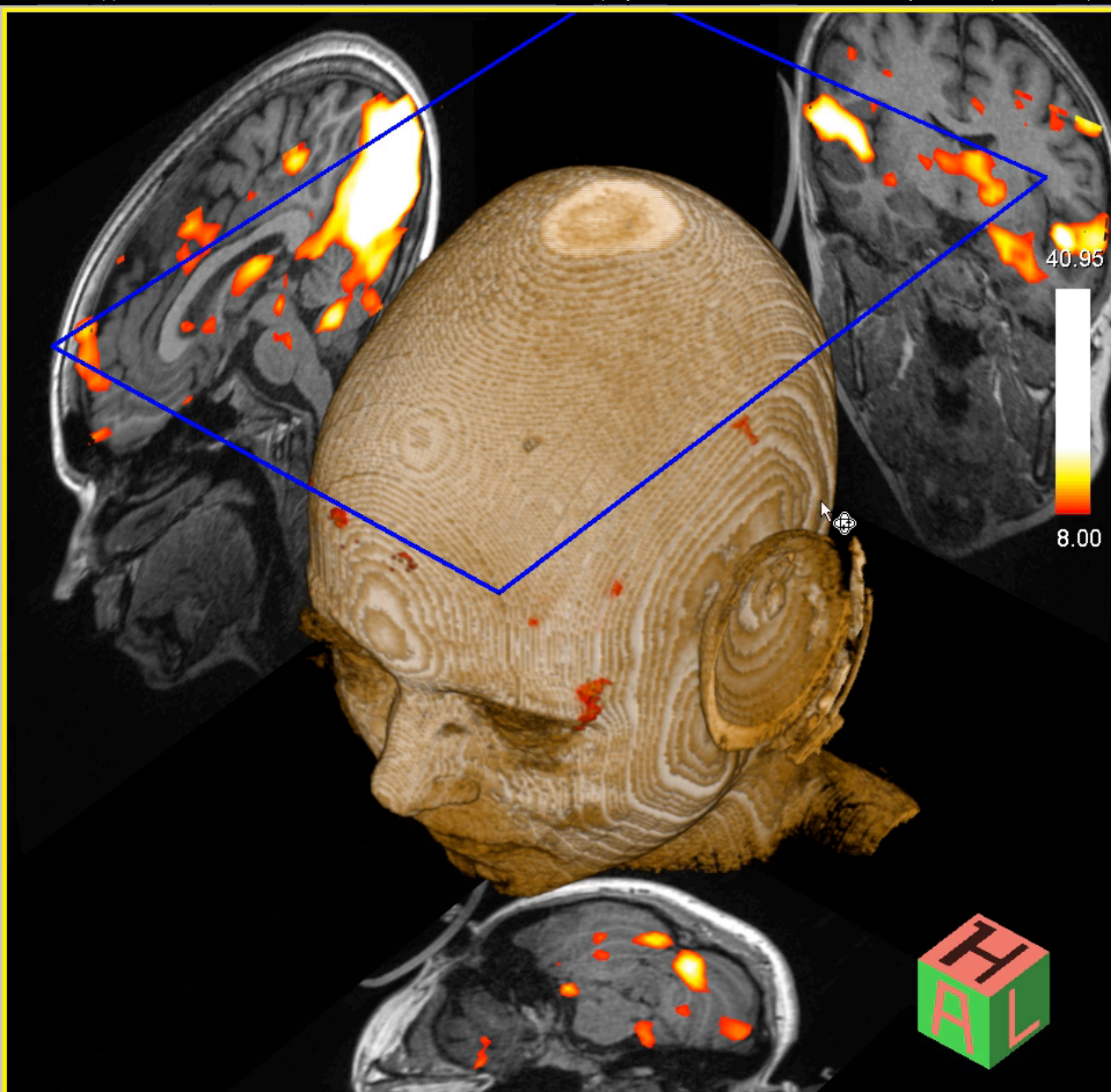
beeld: NOS



RTLnieuws

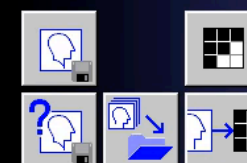
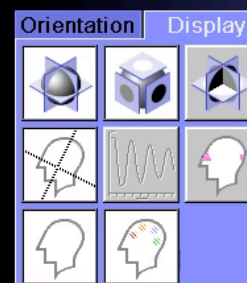






paugaa_20070921

Study



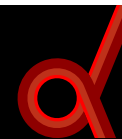
Exam

Viewing

Filming

3D

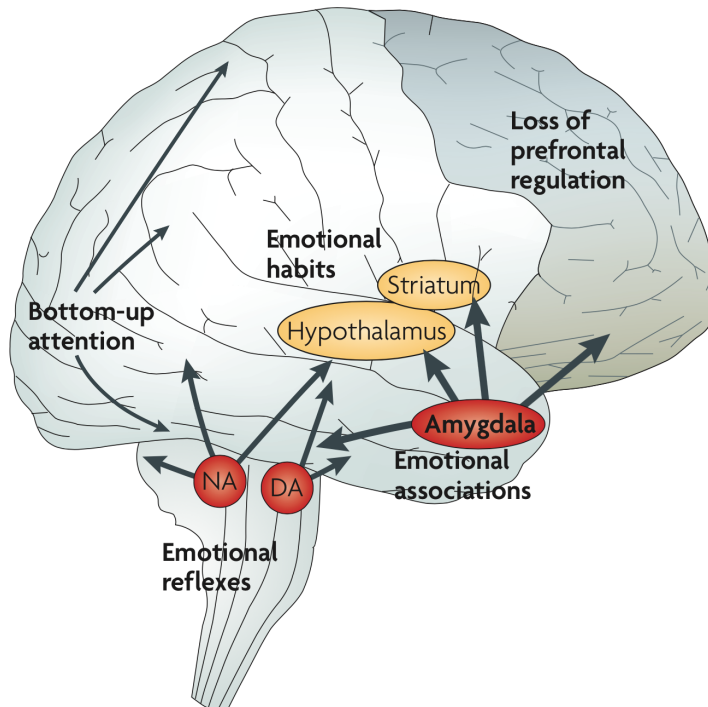
Neuro 3D



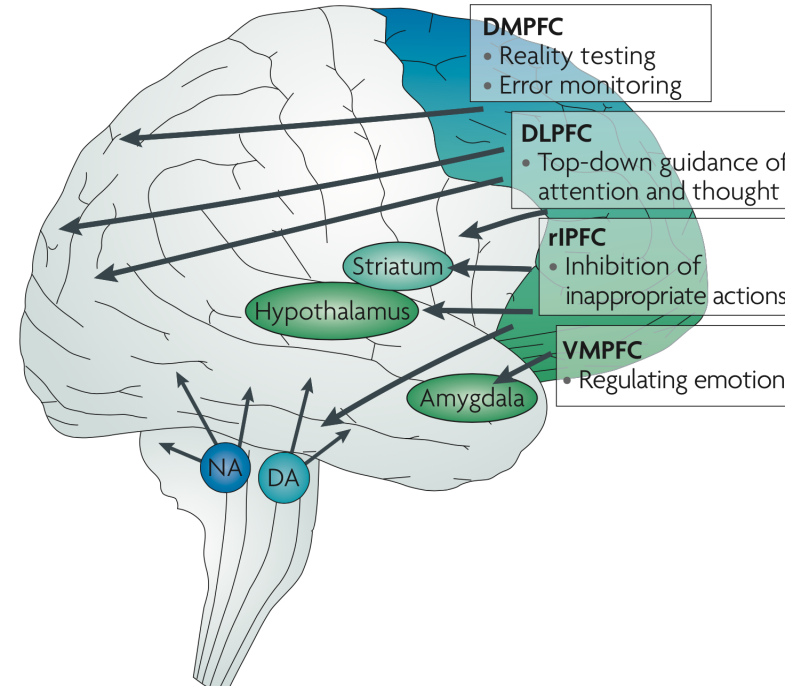


Snelle effecten van stress op het brein

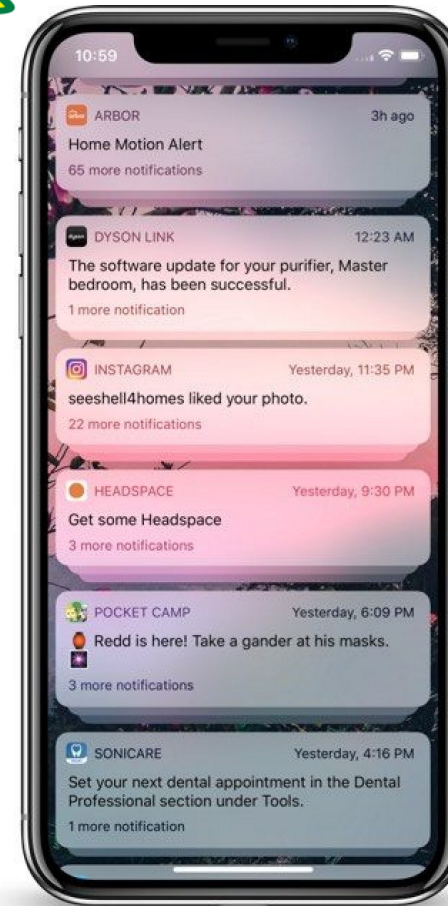
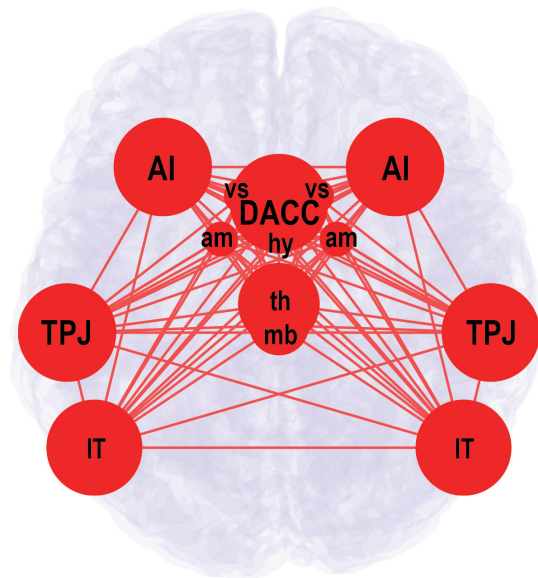
Stress



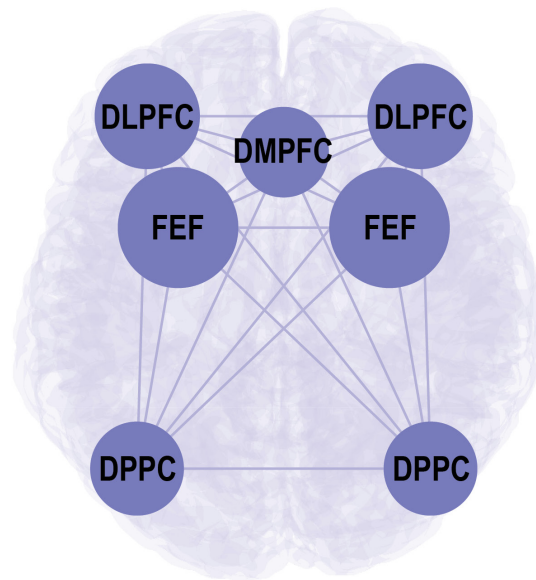
Alert



“Stress” network

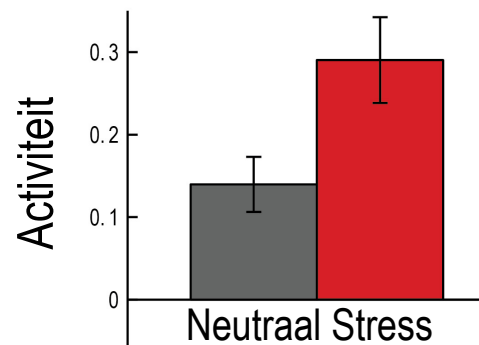
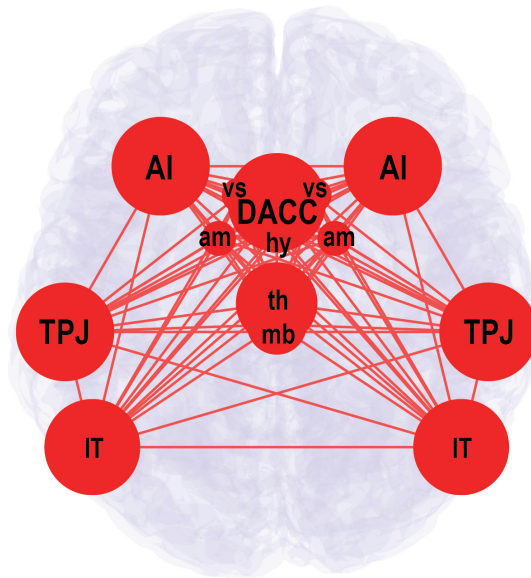


“Controlle” network

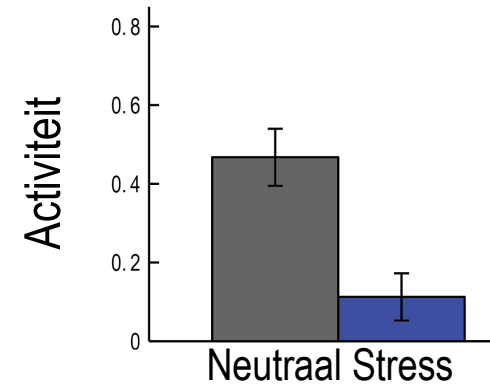
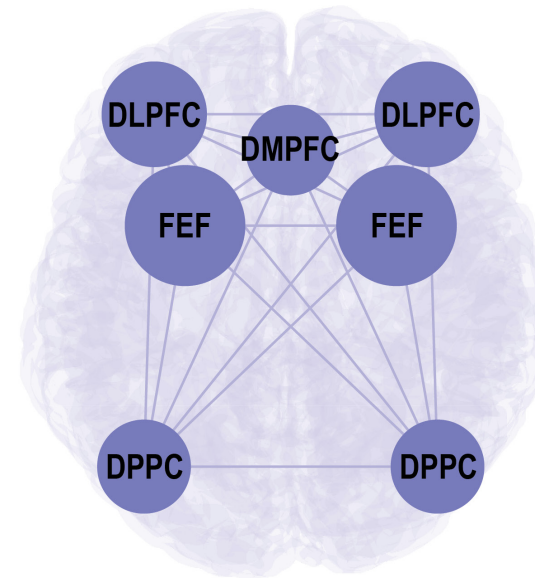




“Stress” netwerk

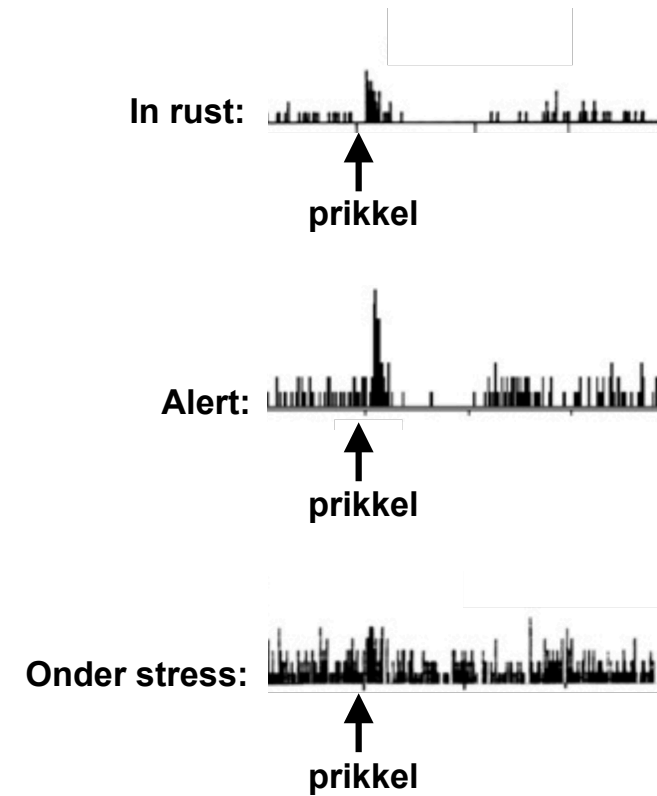
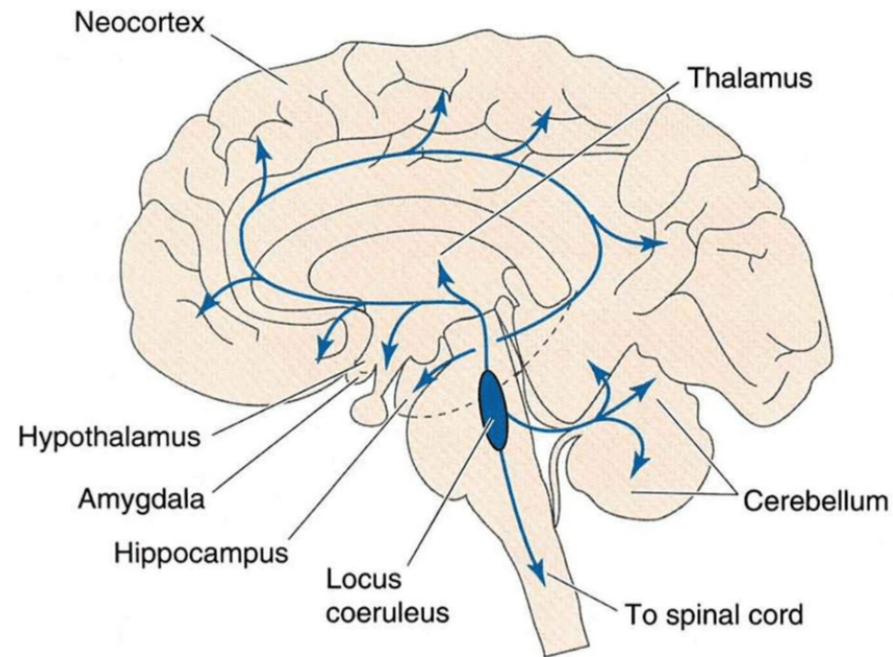


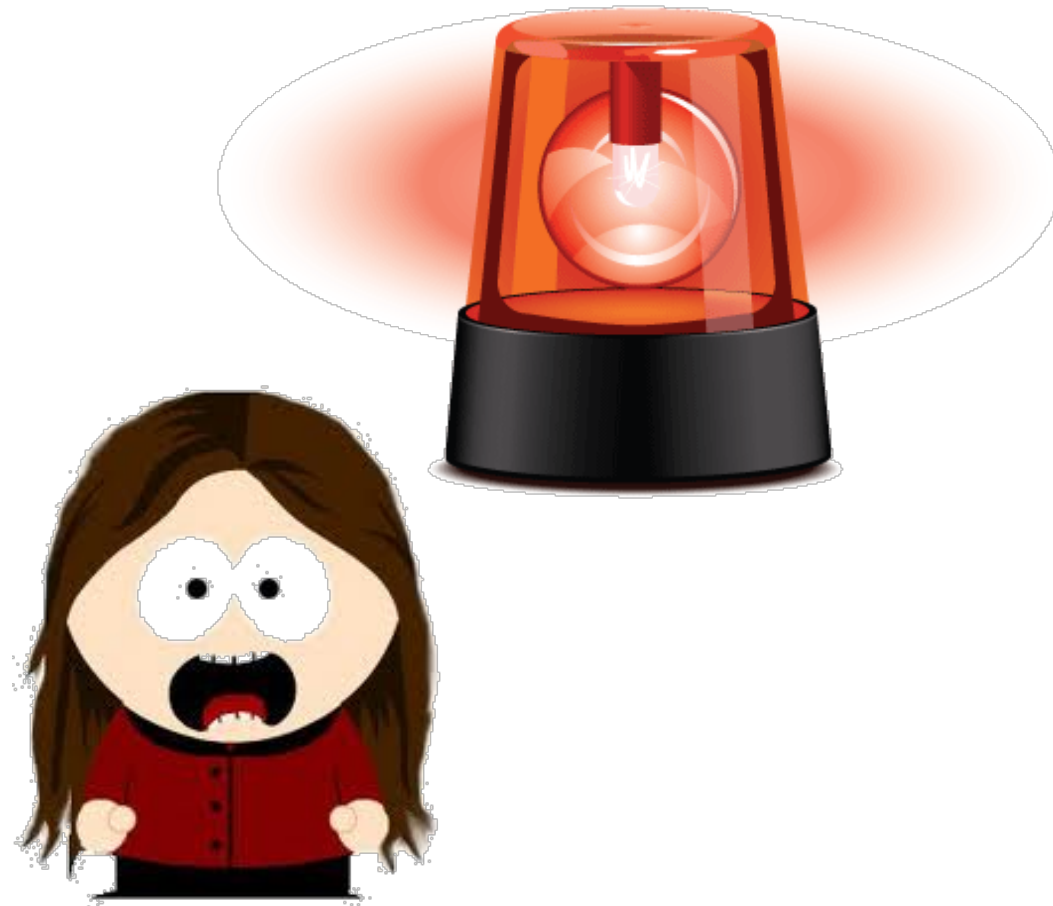
“Controle” netwerk



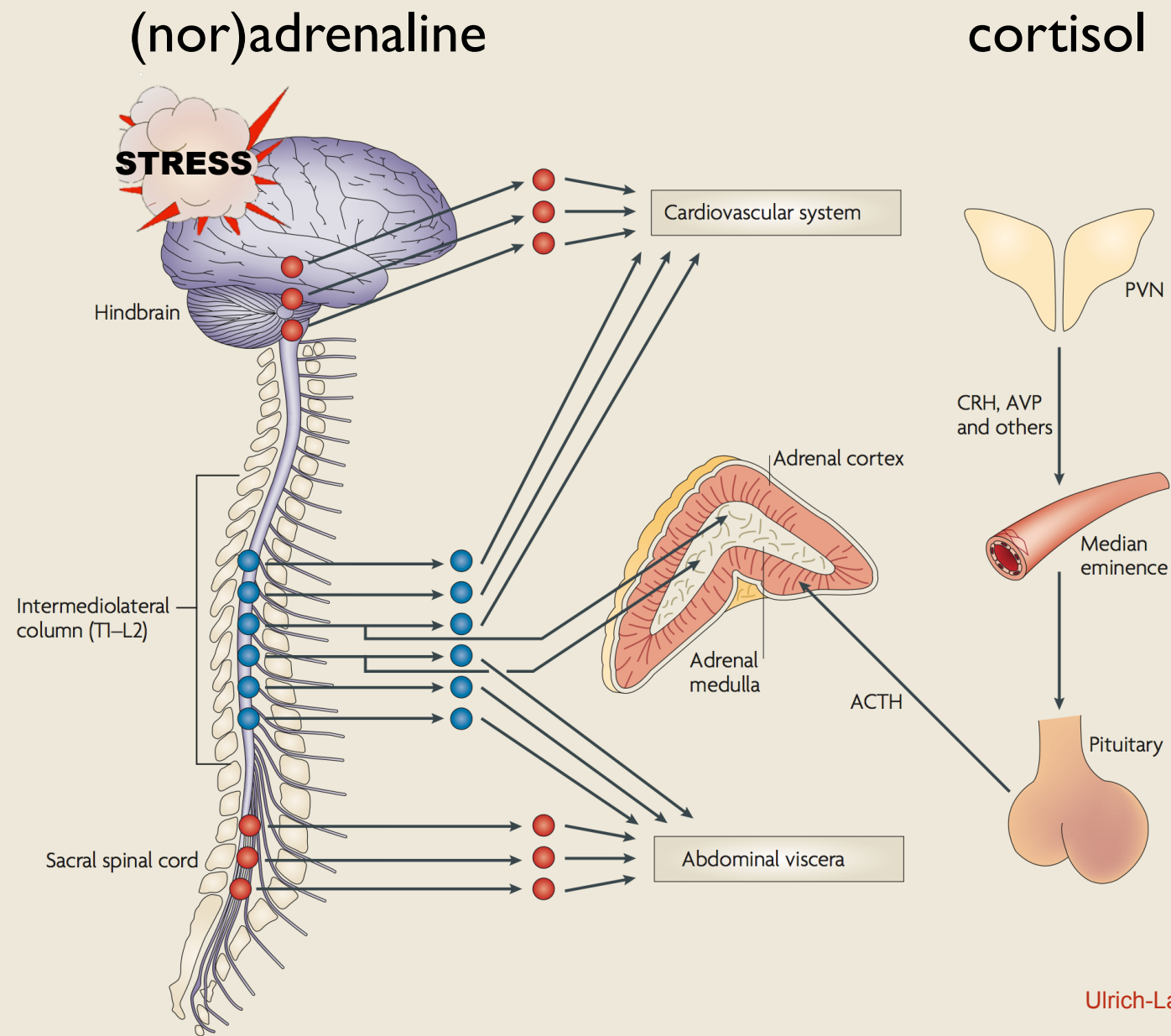
Hermans et al 2011 Science; Hermans et al 2014, 2015 TINS; Young et al 2017 J Neurosci

Noradrenaline en het “stress” netwerk



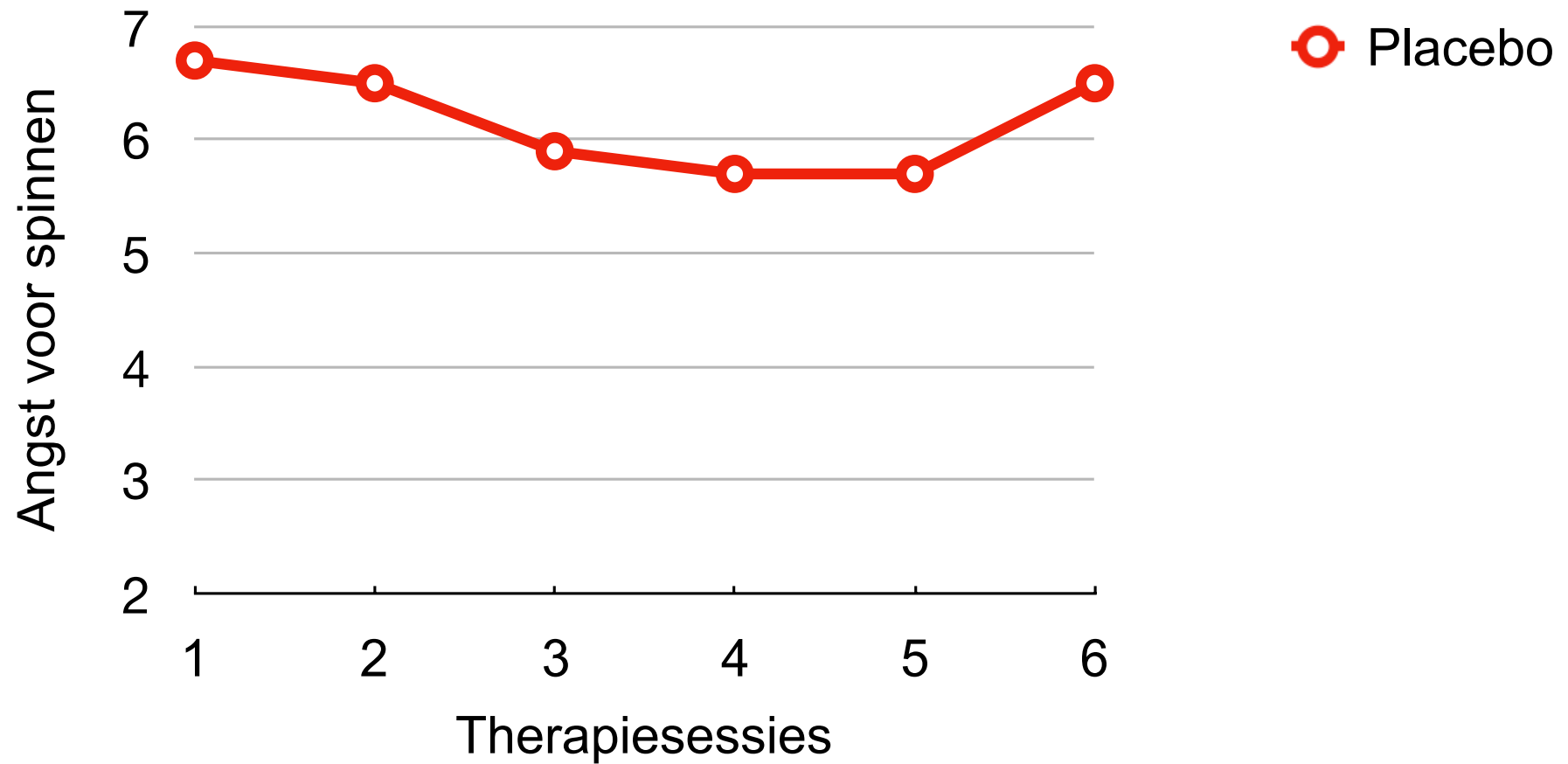


Stress = Alarmfase?



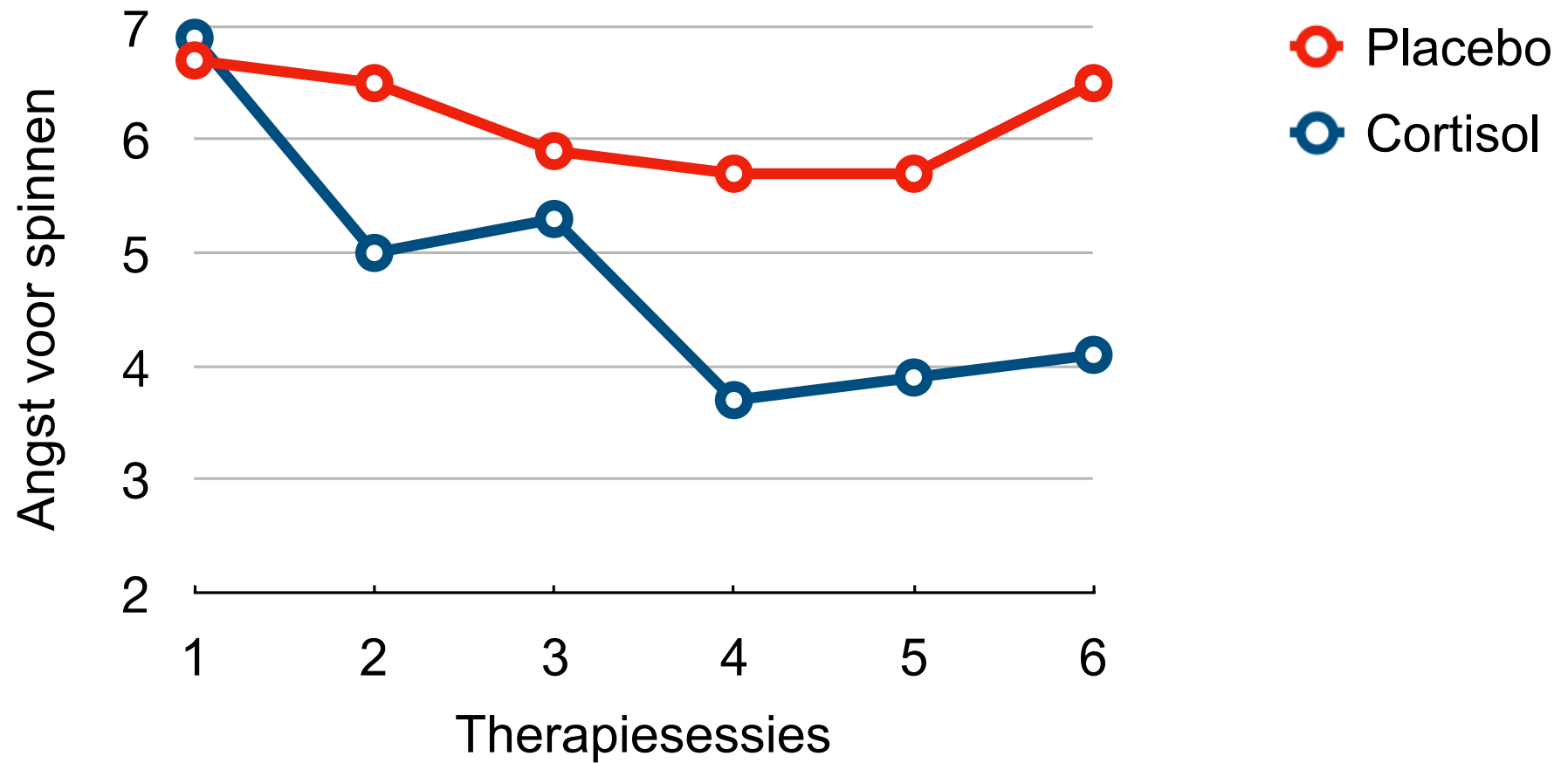


Effect van toediening van cortisol



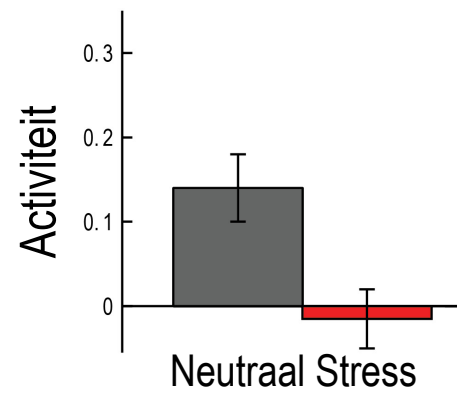
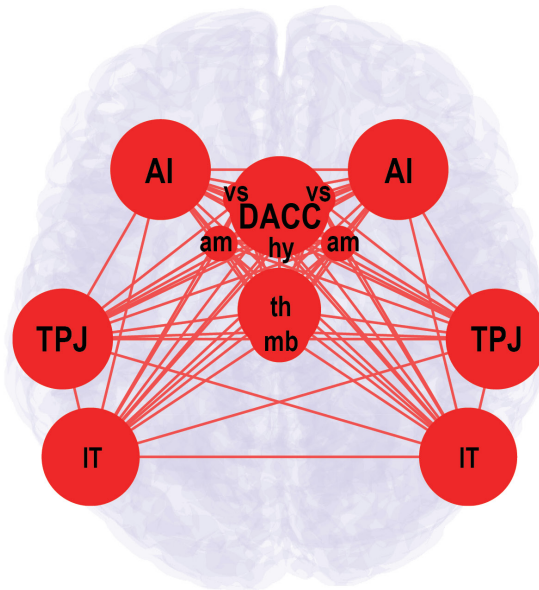


Effect van toediening van cortisol

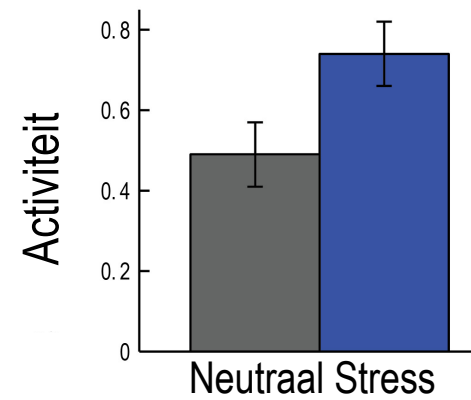
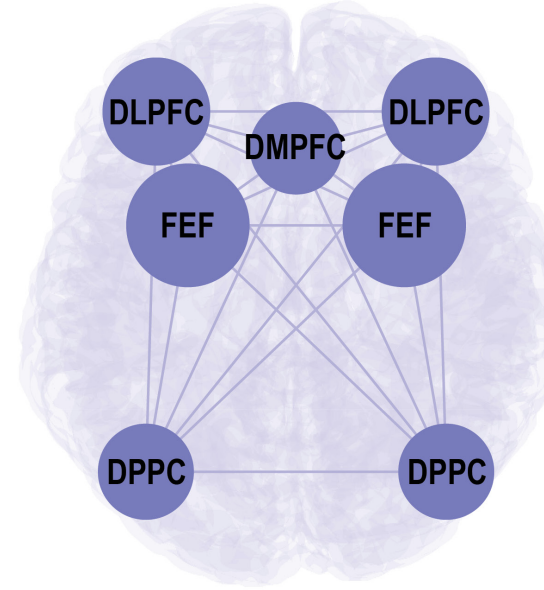




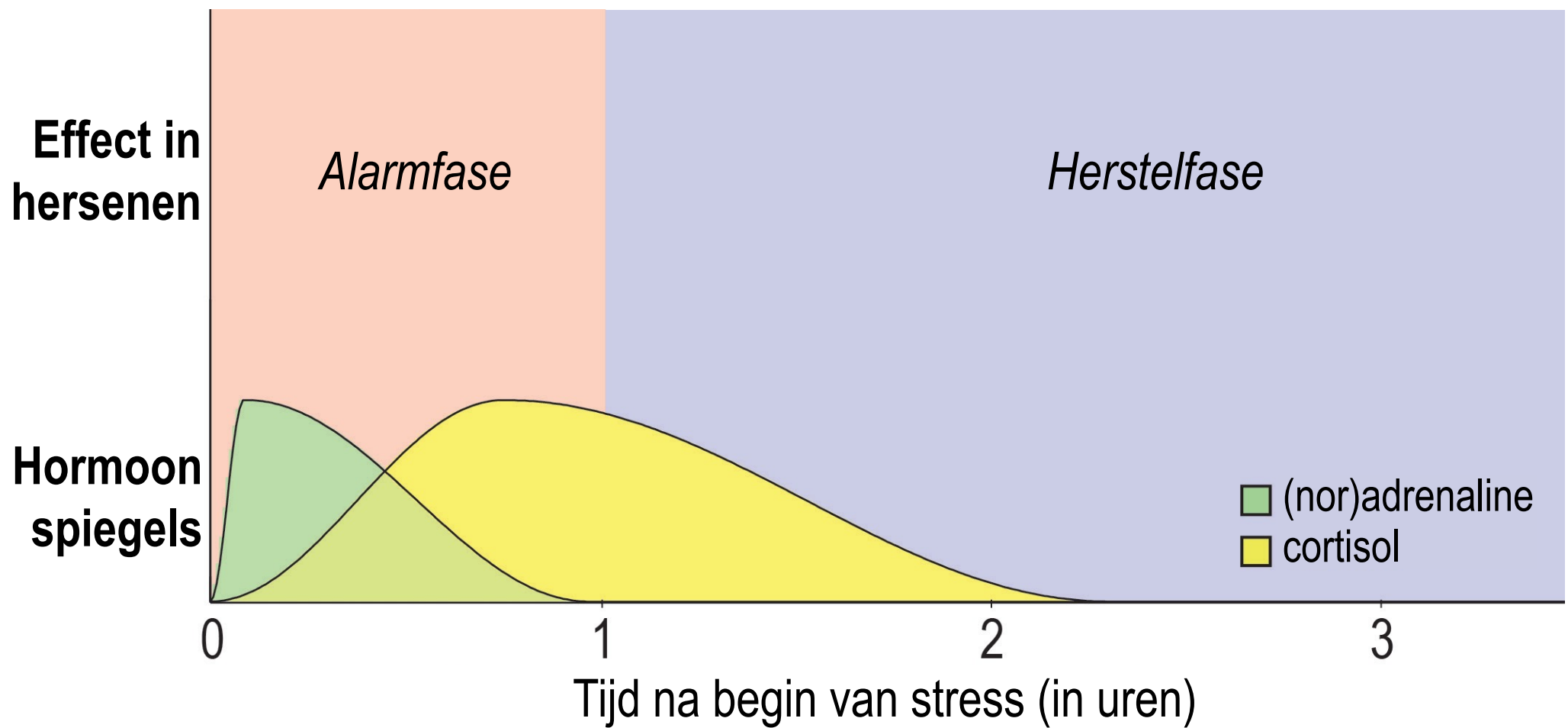
“Stress” network



“Controle” network



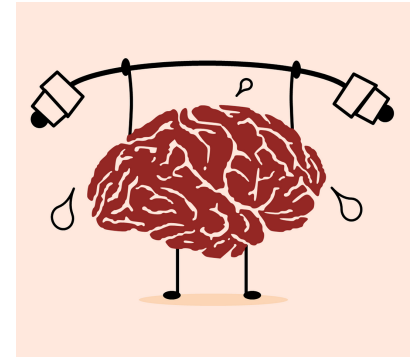
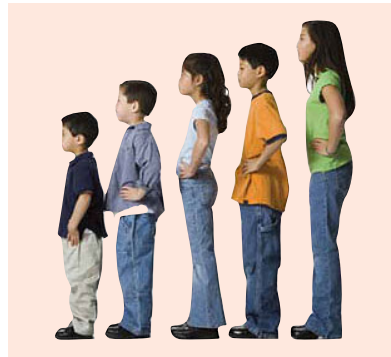
Hermans et al 2014, 2015; Henckens et al 2010 J Neurosci; 2011 PNAS







Chronische stress in verschillende levensfasen



↑
stressor

↑
stressor

↑
stressor

Genen

X

Omgeving

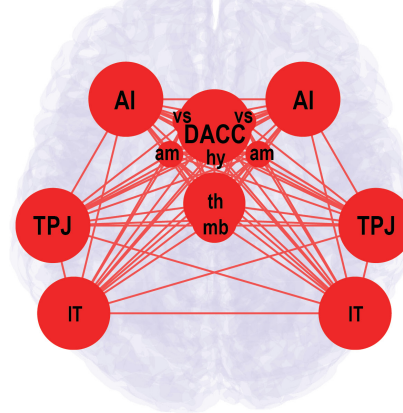


Uitkomst

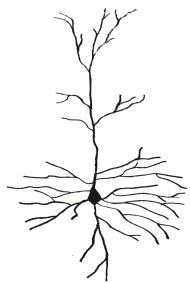
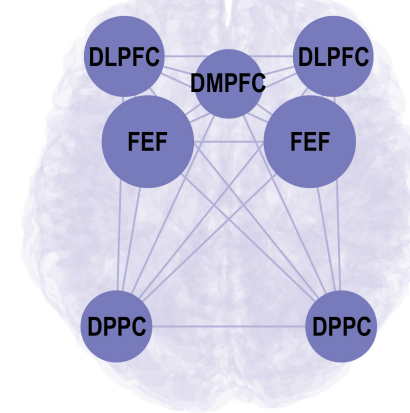


Chronische stress en hersennetwerken

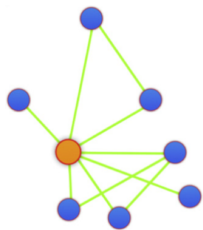
“Stress” netwerk



“Controle” netwerk



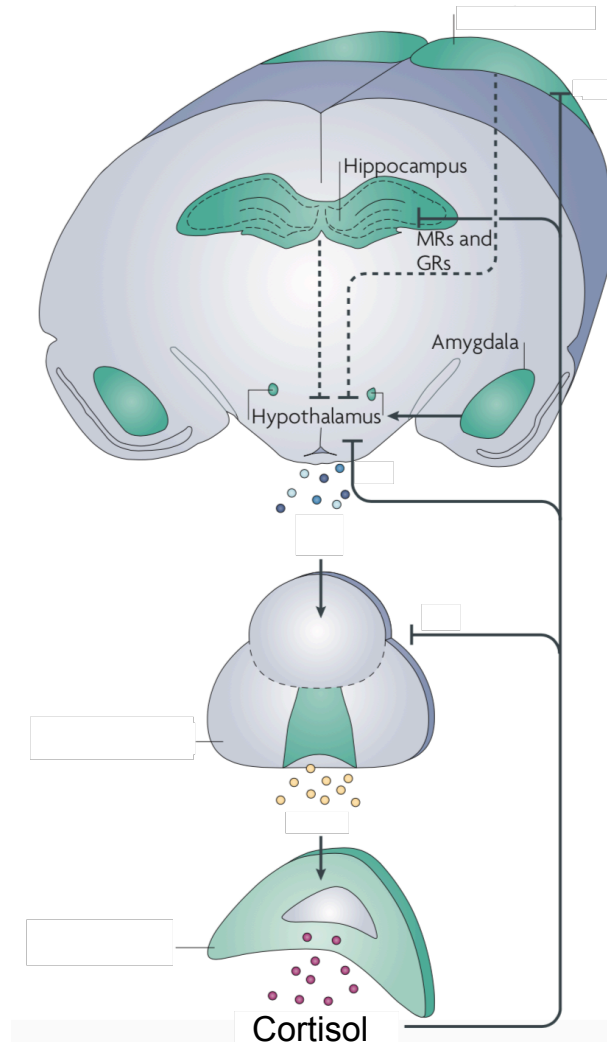
*Vertakkingen
Neuronen*



*Netwerk
Functie*

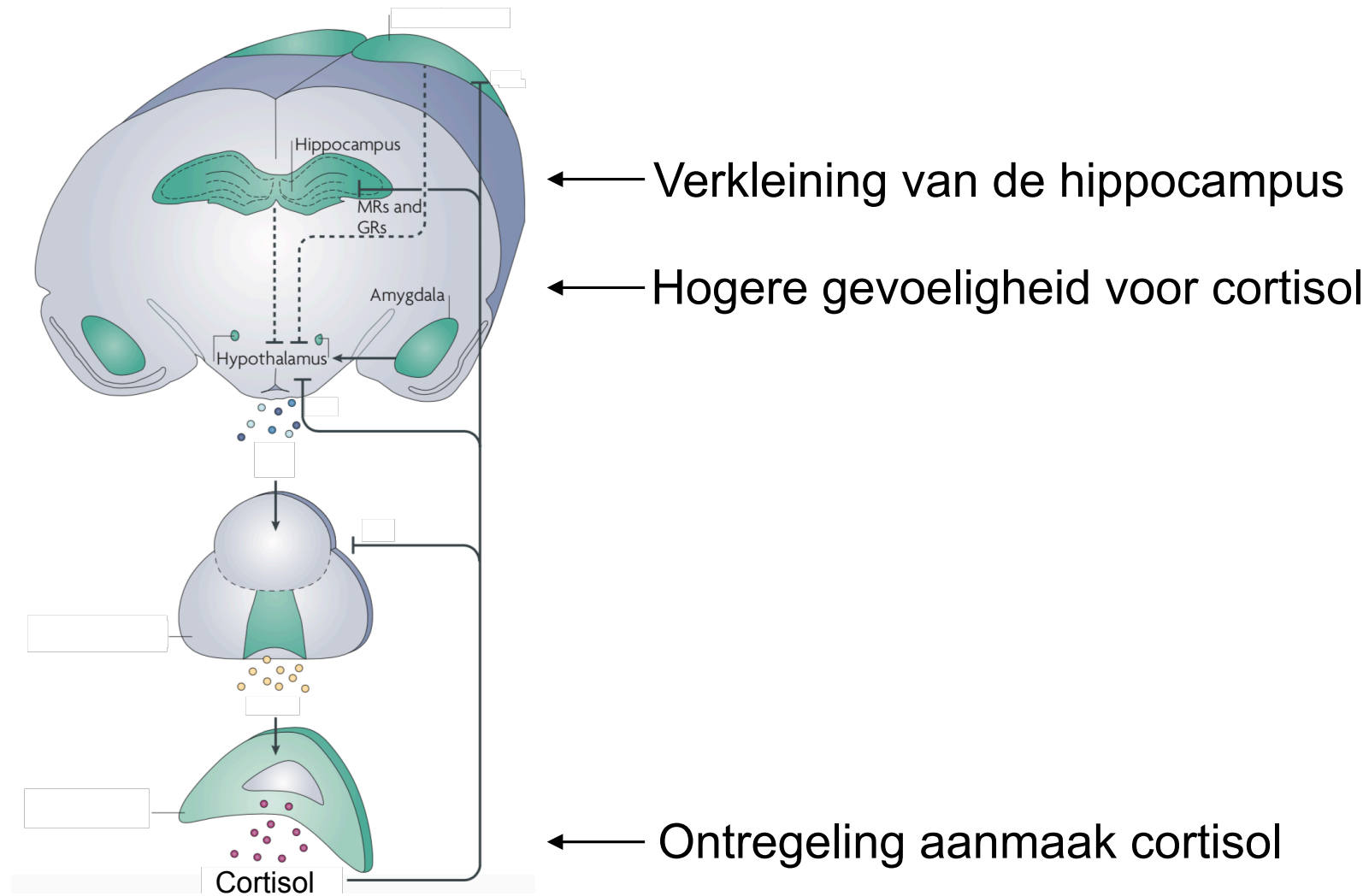


Ontregeling stresshormoonstelsel na stress op vroege leeftijd



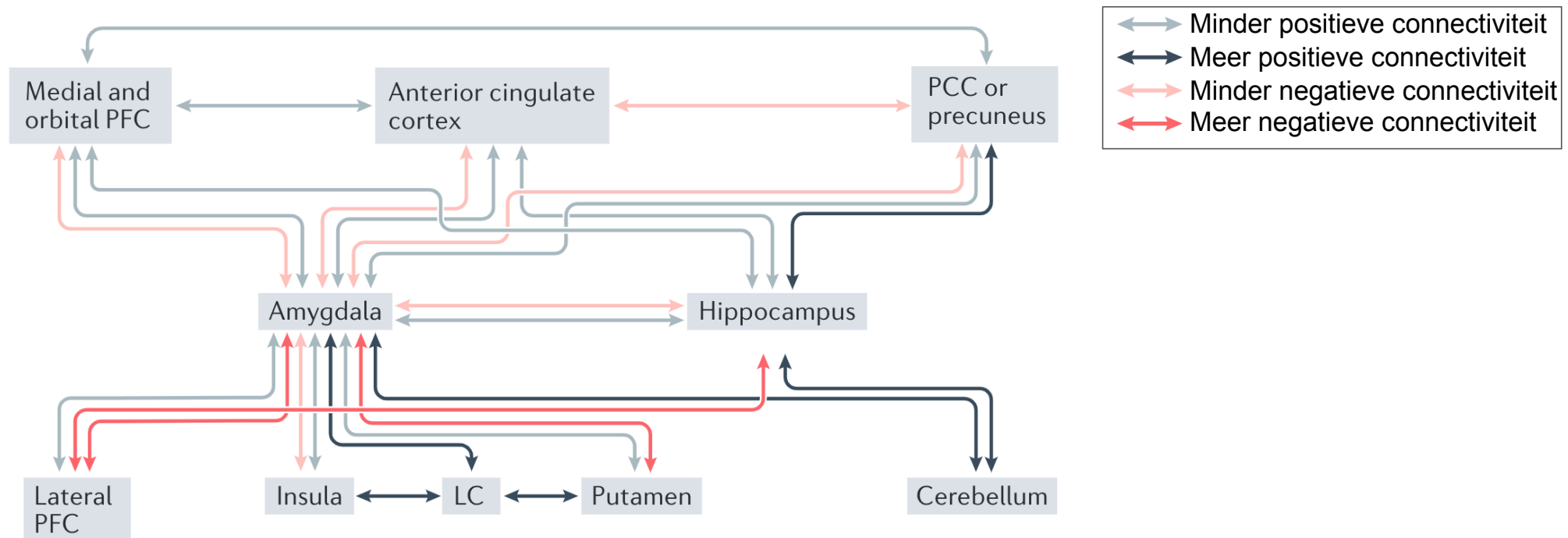
Aangepast van Lupien et al 2009 Nat Rev Neurosci

Ontregeling stresshormoonsysteem na stress op vroege leeftijd

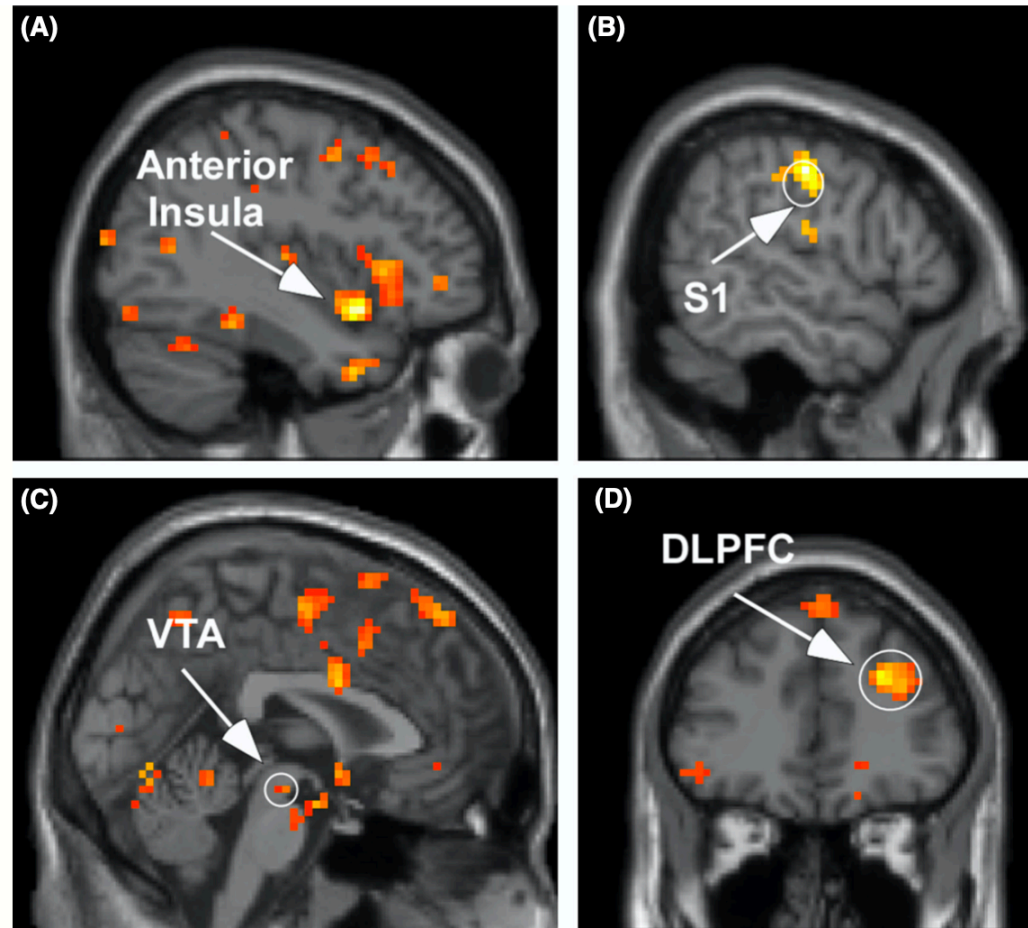




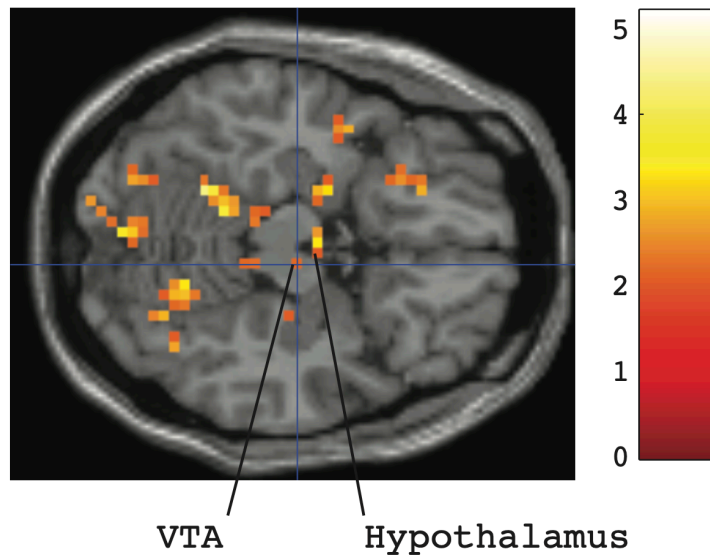
Effecten van vroege jeugdtrauma's op netwerkconnectiviteit



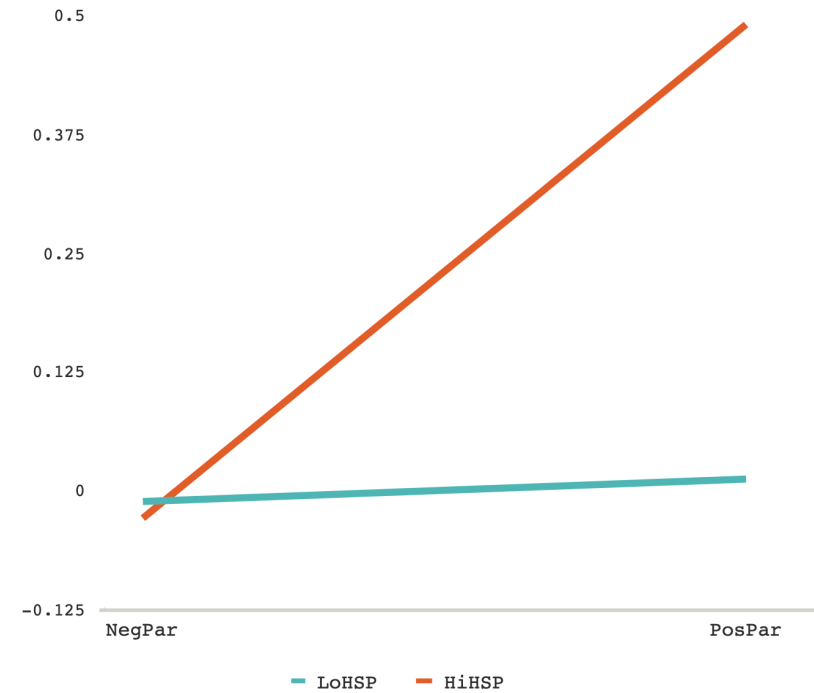
Hersenactivatie in hooggevoelige personen



Hersenactivatie in hooggevoelige personen



Activation intensity
for VTA
(8, -16, -16)

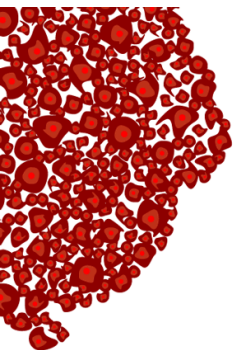




Stressreactie is gezond

Langdurige stress: ontregeling (hormonaal/neuraal)

Stress en overprikkeling versterken elkaar



DONDERS
INSTITUTE

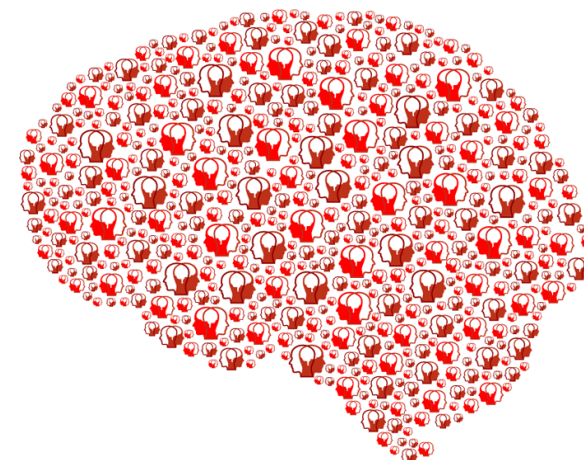


European Research Council
Established by the European Commission

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www.ernohermans.com

Cognitive Affective Neuroscience lab



Met dank aan Rinka van Zundert
(voor brandweer-filmpje)

Radboud University  Radboudumc

