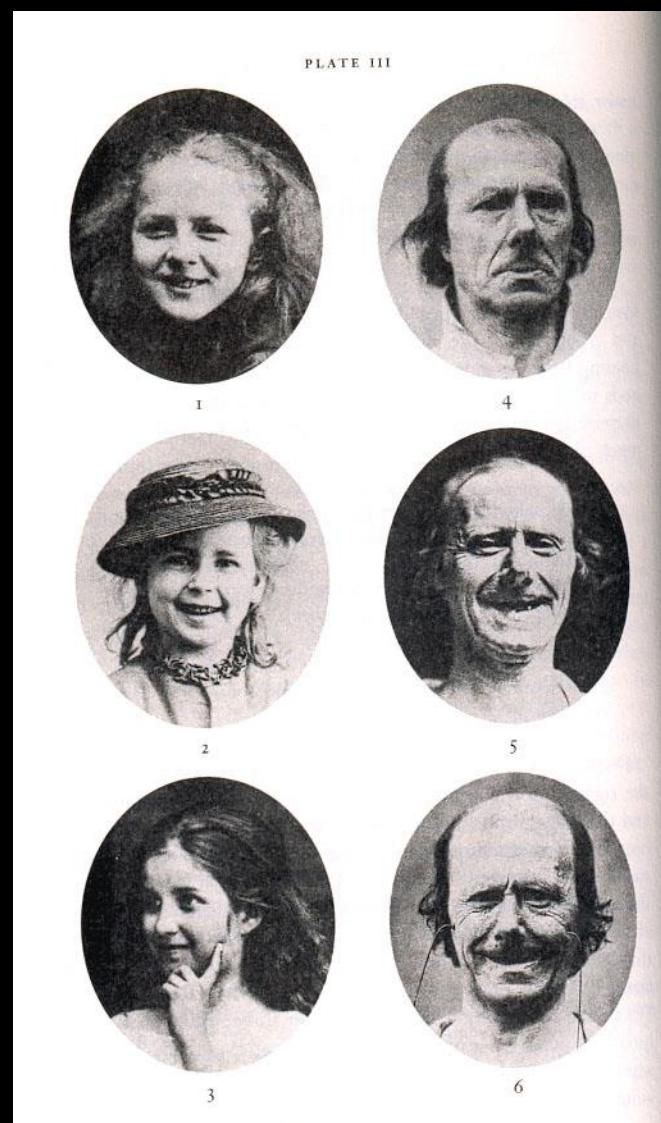
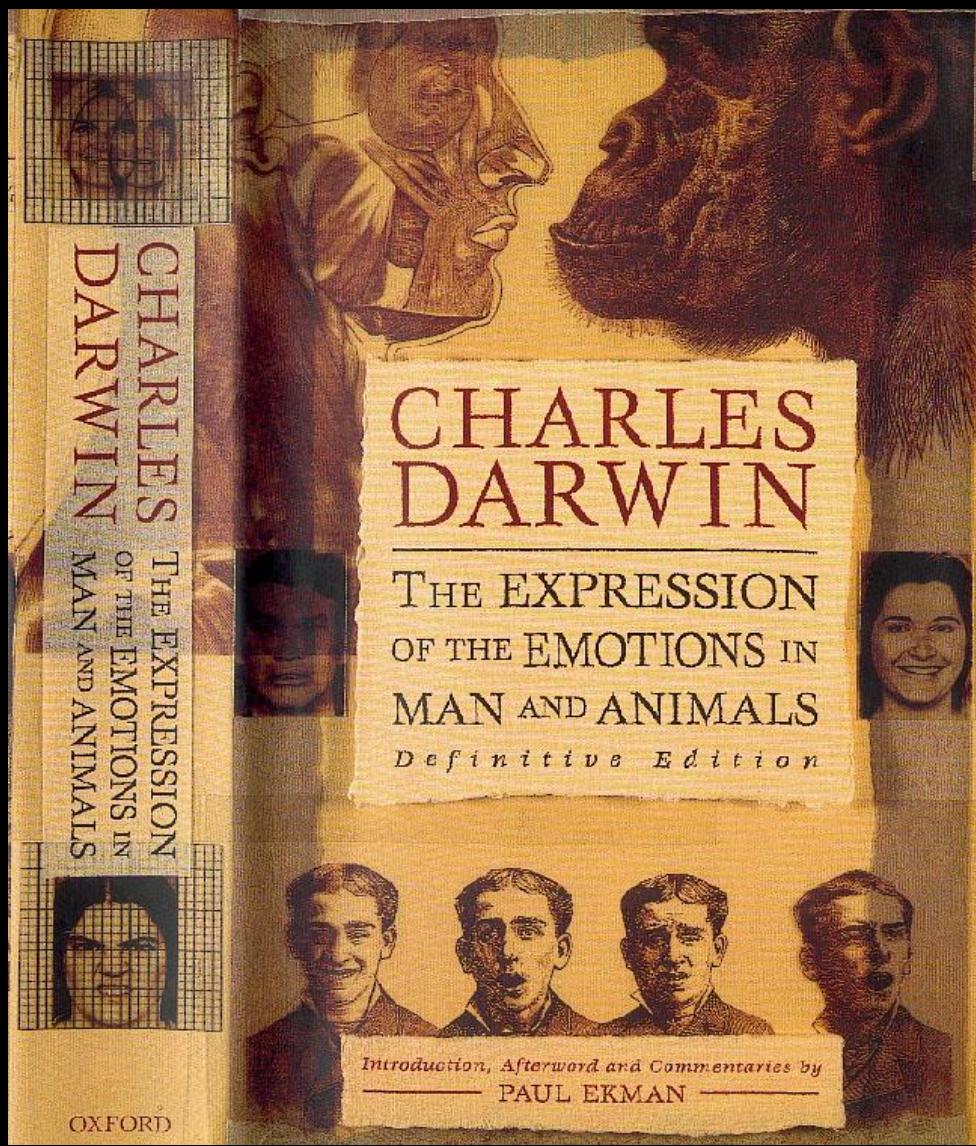




Understanding psychopathology by means of neuroimaging, models, theories and perspectives

Claudio Gentili, M.D. Ph.D.

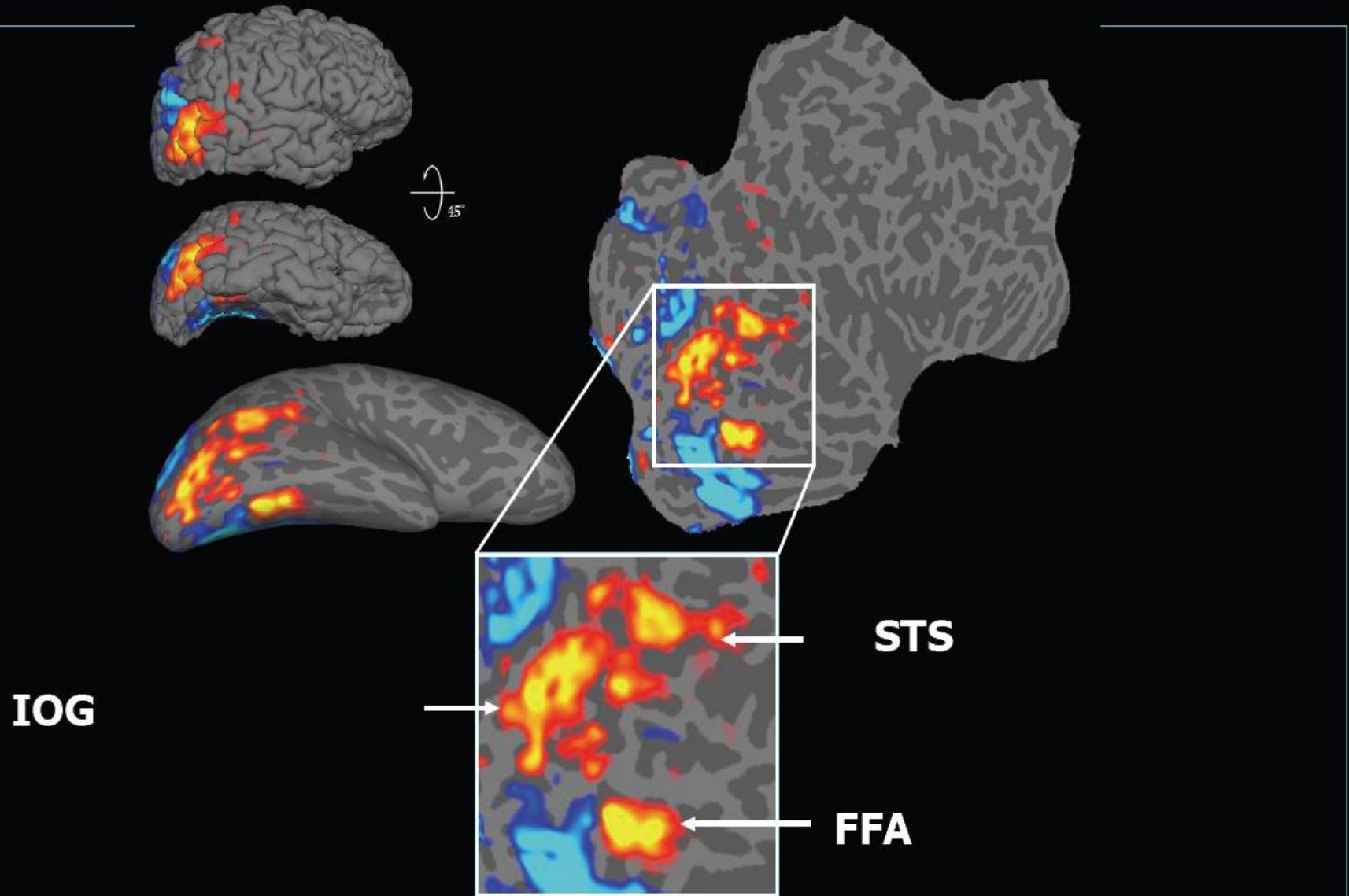
**Department of Psychiatry, Neurobiology,
Pharmacology and Biotechnology
University of Pisa**



A**B**

Hari et al., 2009

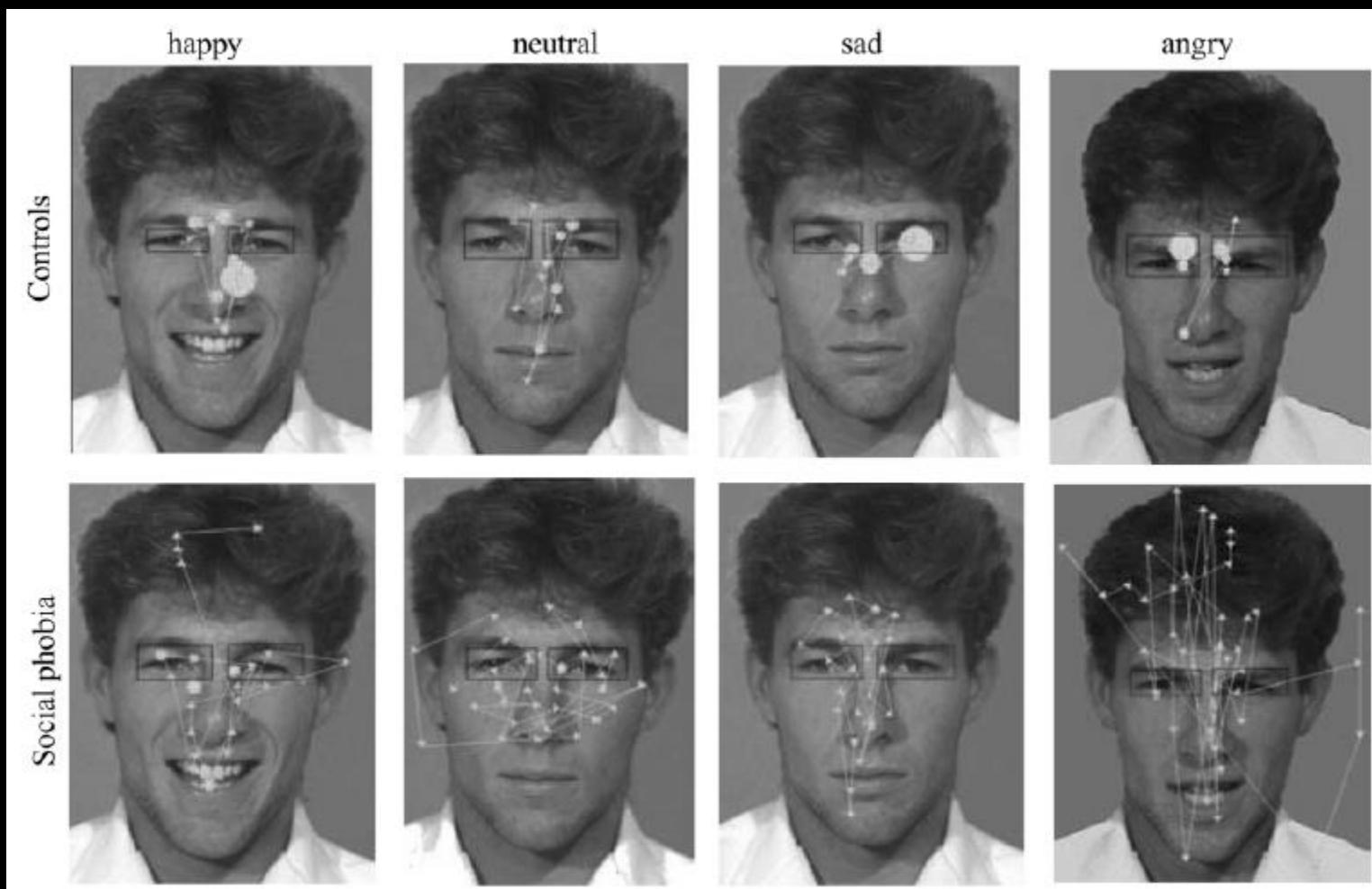
face perception...selectivity?



Face to face: visual scanpath evidence for abnormal processing of facial expressions in social phobia

Psychiatry Research 127 (2004) 43–53

Kaye Horley^{a,b,*}, Leanne M. Williams^{b,c}, Craig Gonsalvez^a, Evian Gordon^{b,d}

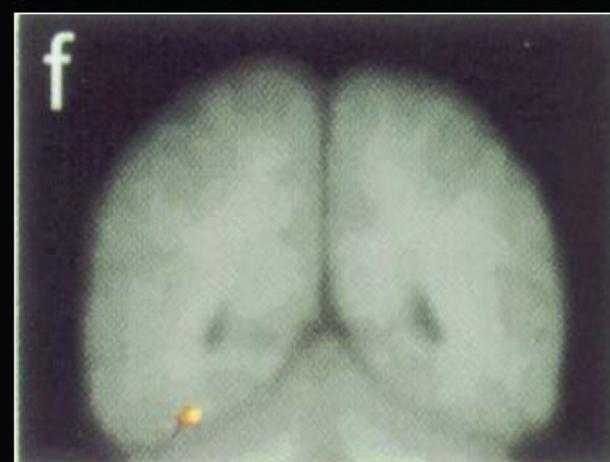
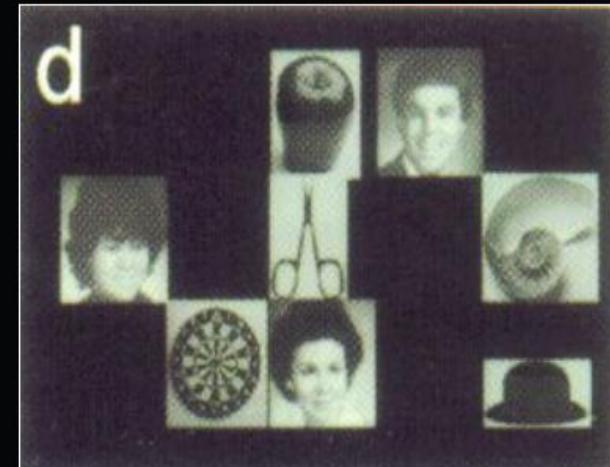
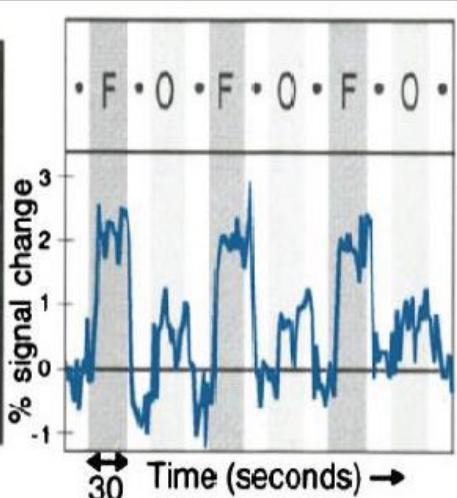
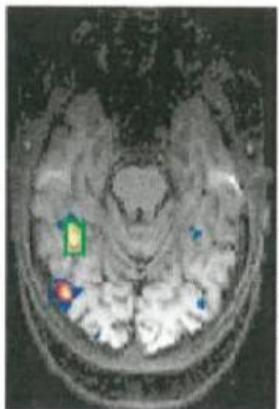


face perception...selectivity?

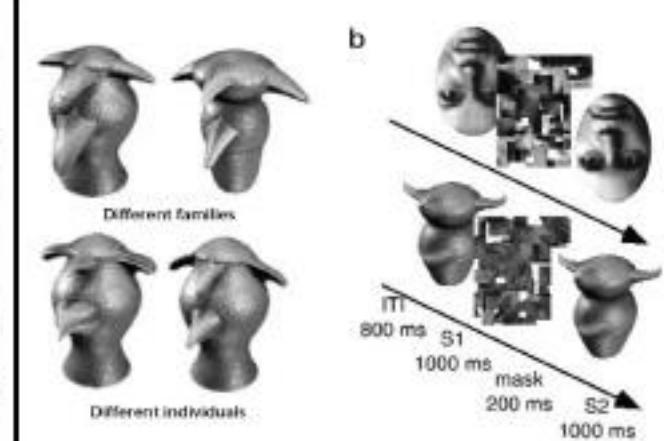
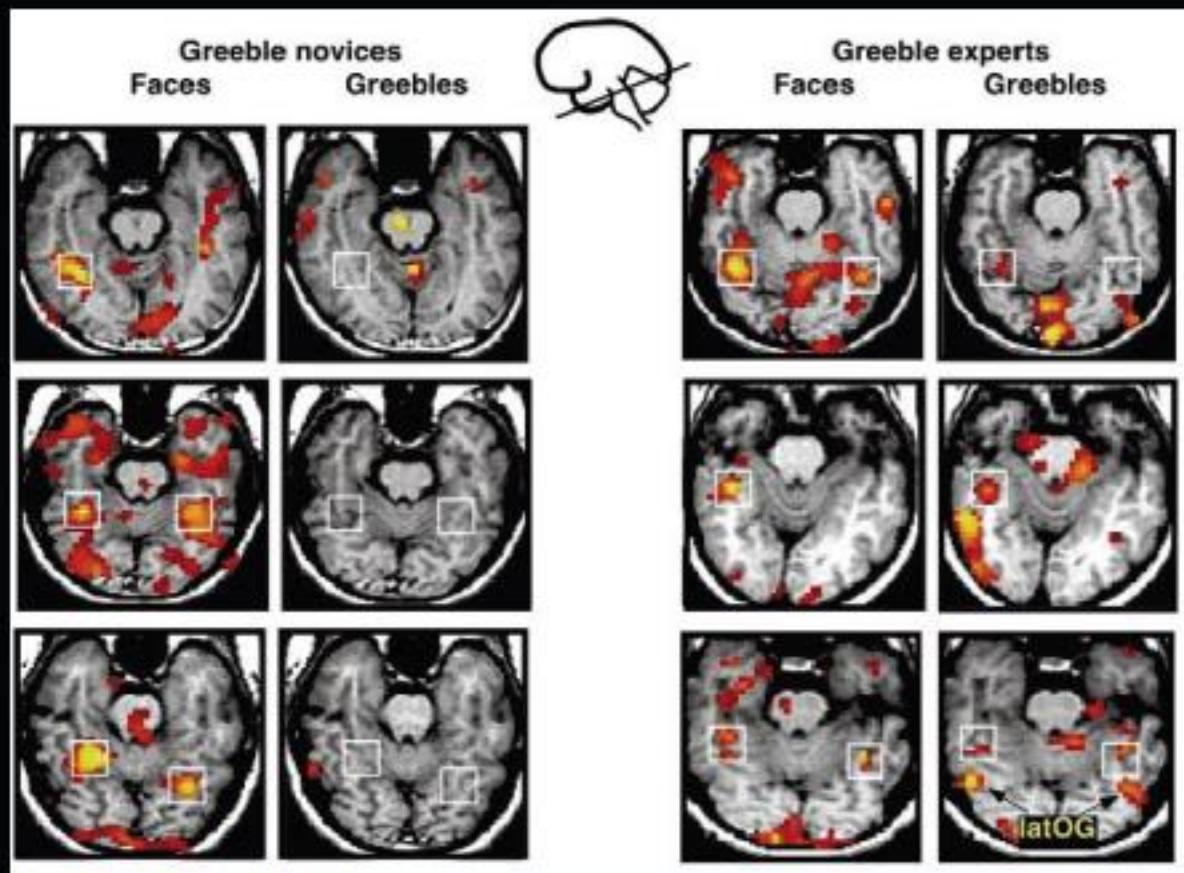
McCarthy et al.
J Cog Neurosci, 1997

Kanwisher et al. J Neurosci, 1997

3a. Faces > Objects

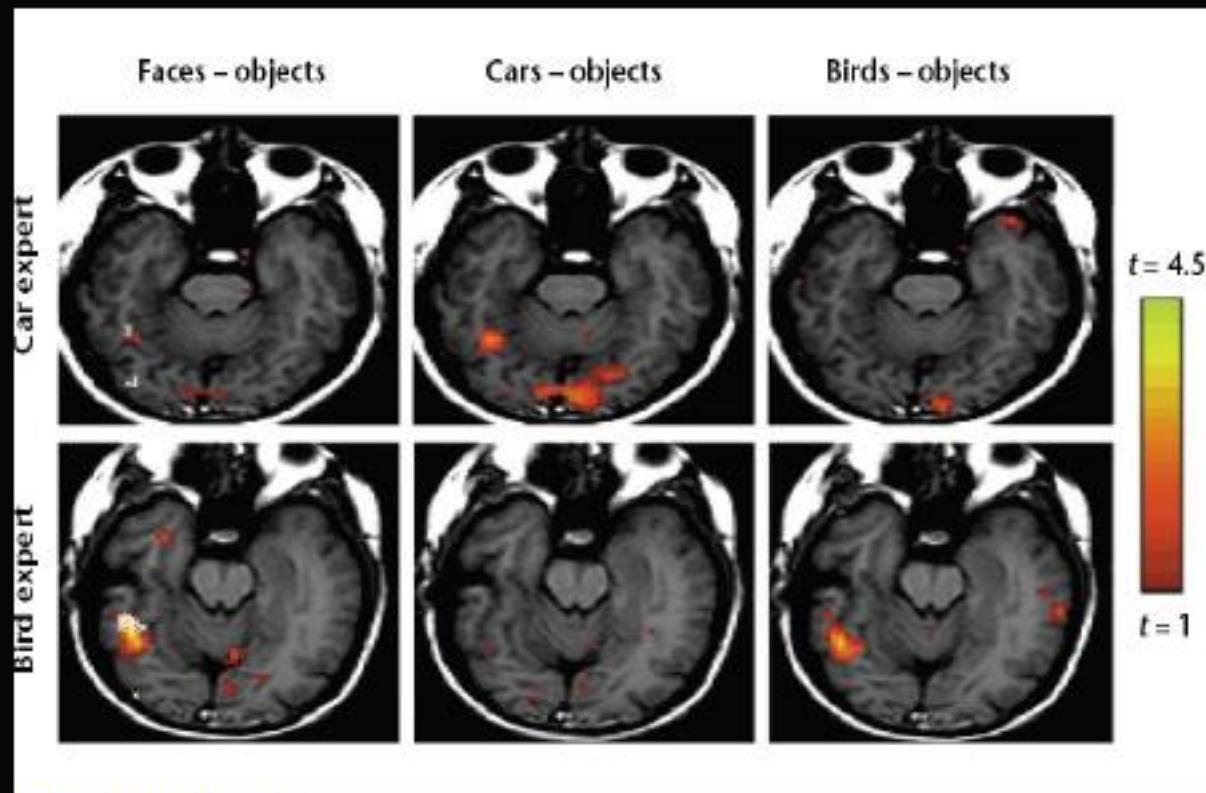


face perception...selectivity?



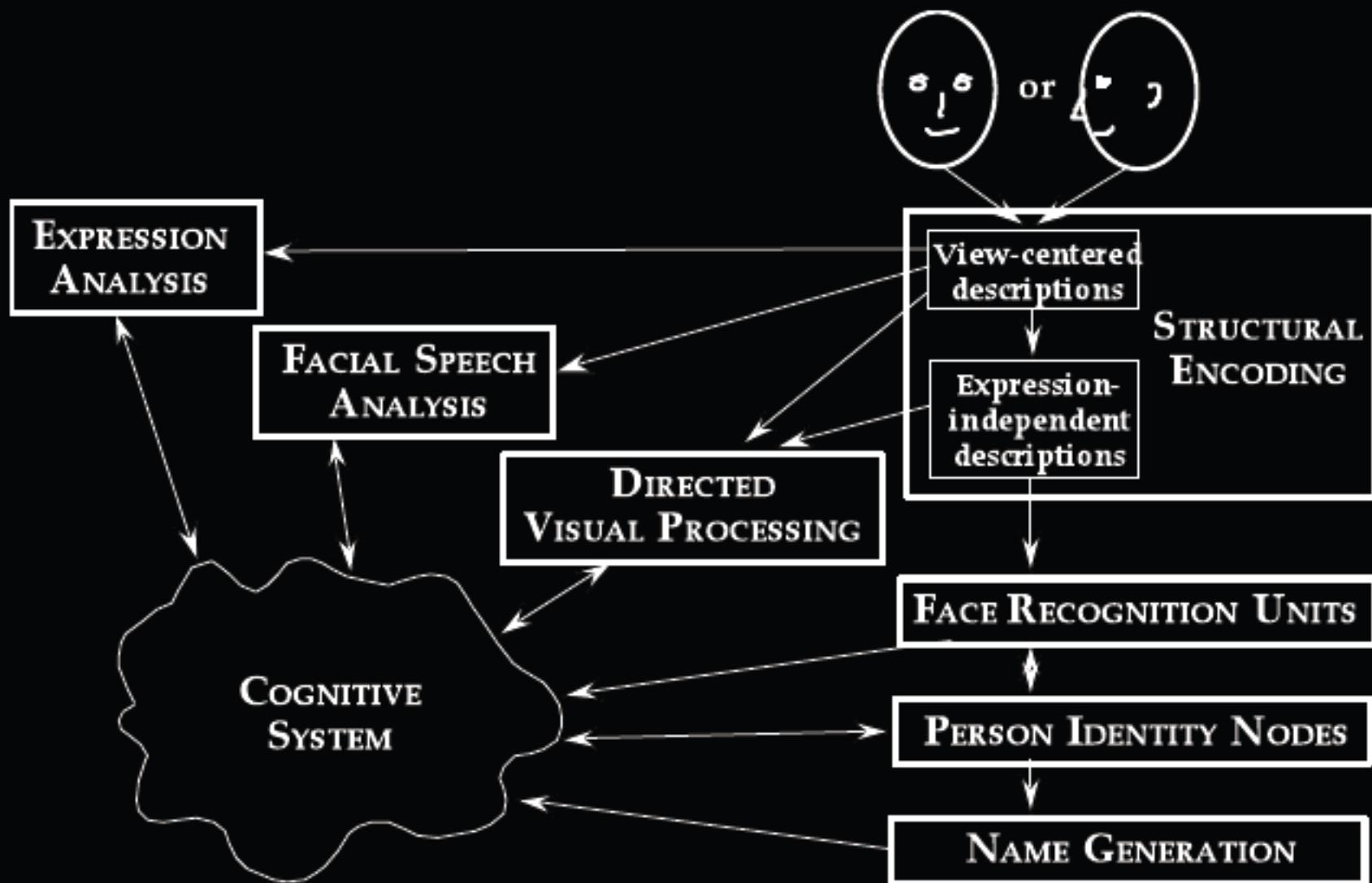
Gautier, et al., 1999

face perception...selectivity?

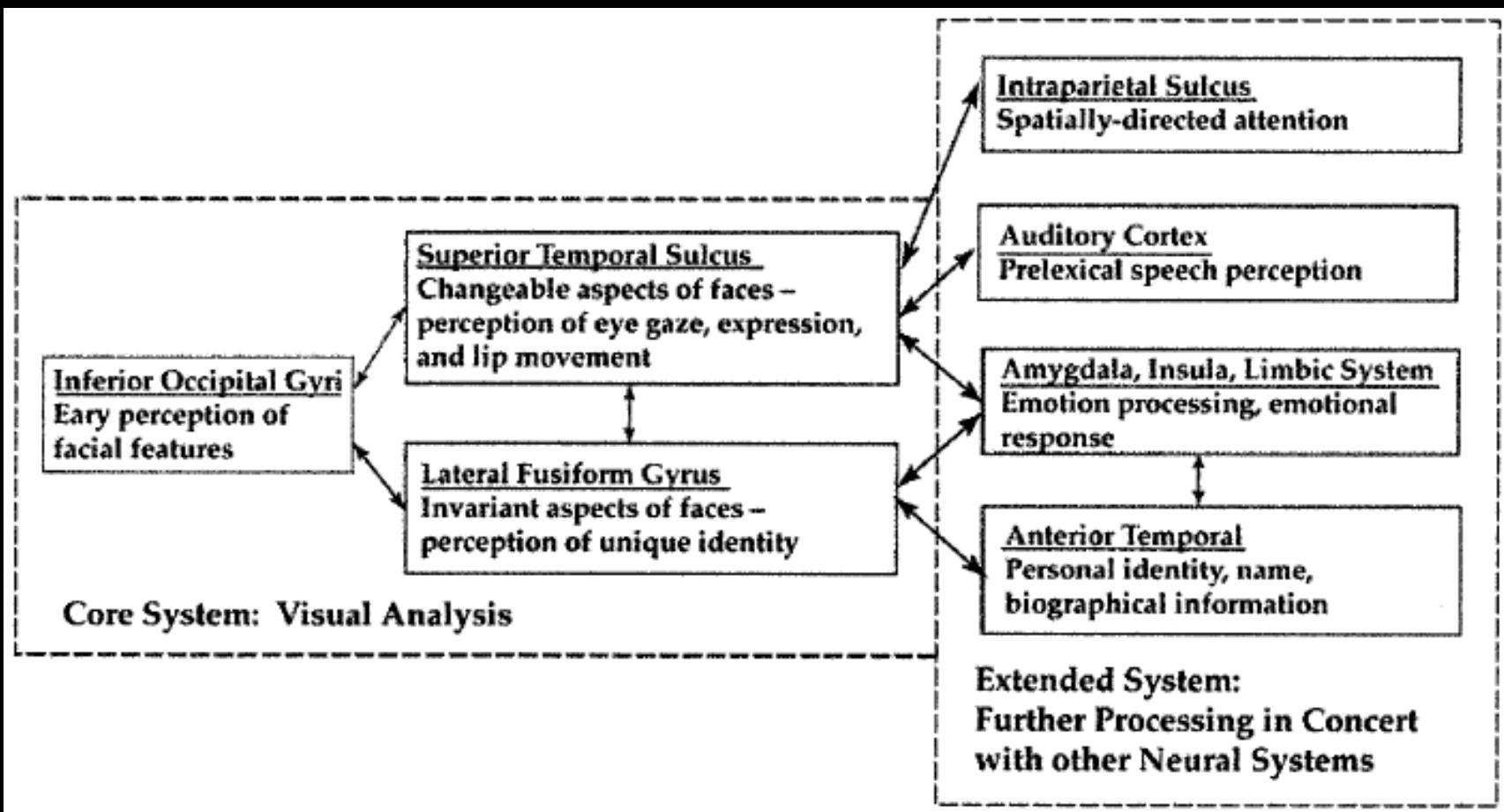
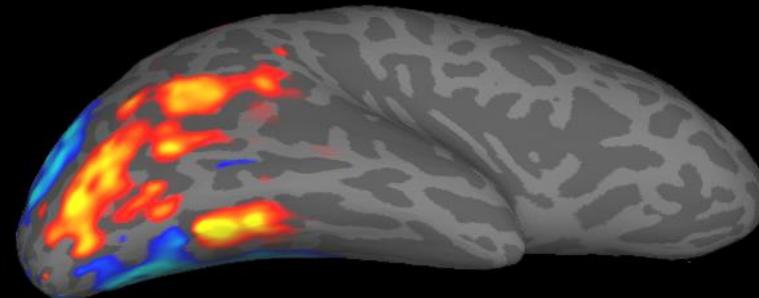


Gautier, et al., 2000

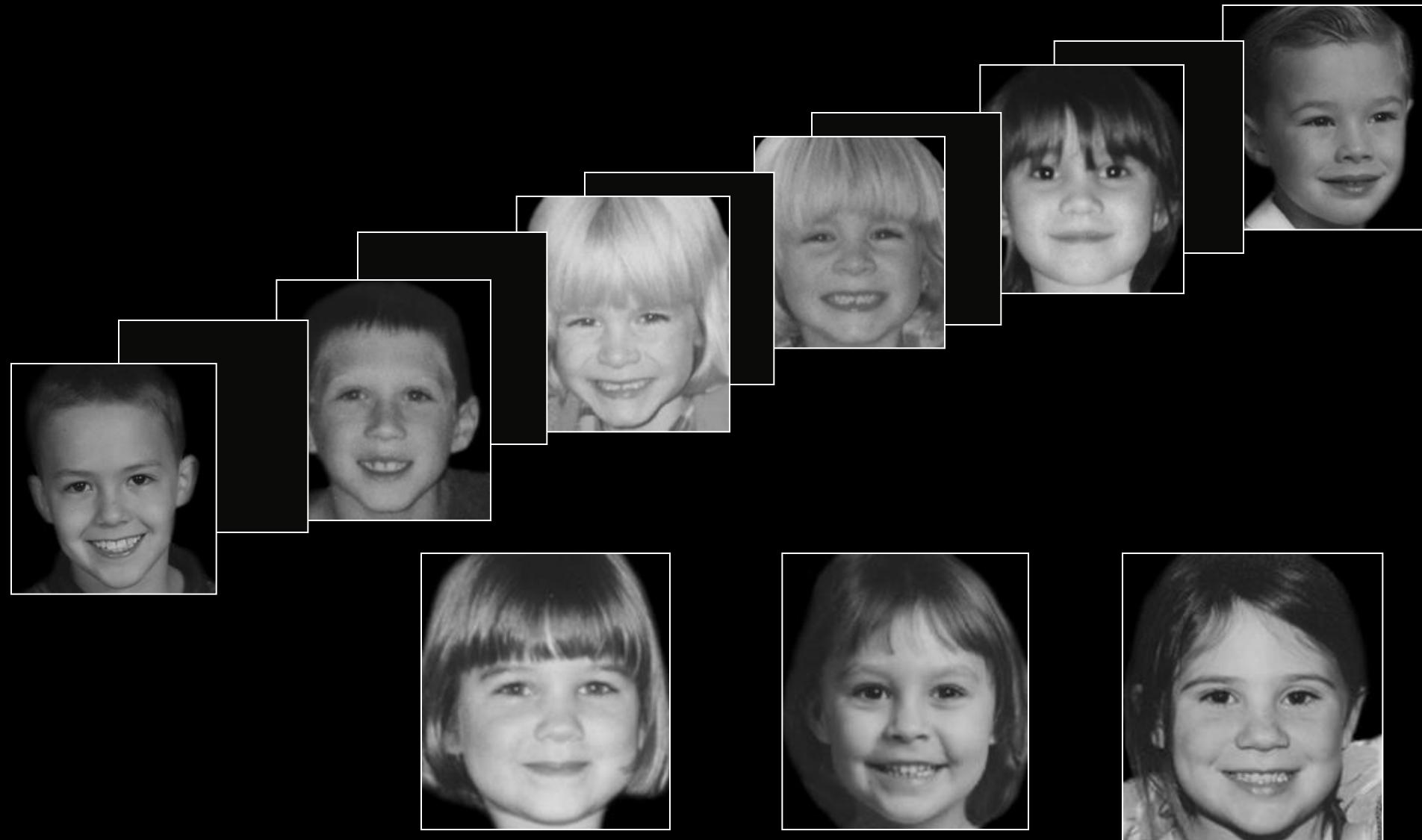
Bruce & Young model for face recognition



A Distributed Neural System for Face Perception



mothers' studies



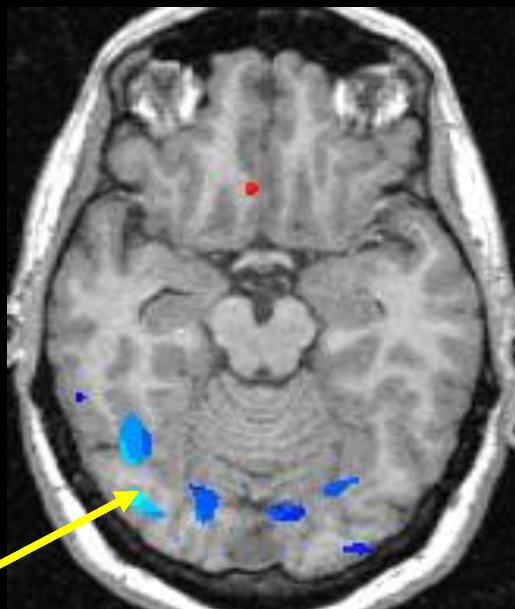
own son

friends of the son

unknwon

mothers' study: fusiform gyrus

- unknown > own > familiar



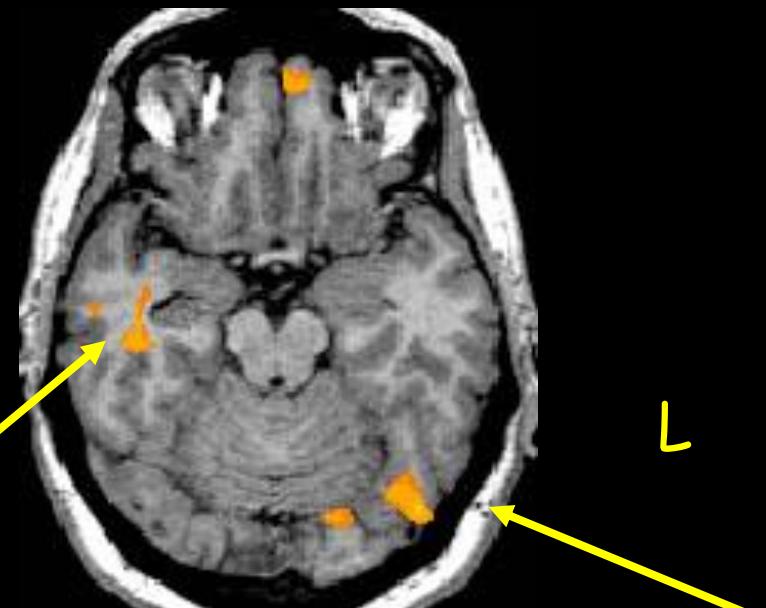
unknown >
familiar



familiar >
unknown



$p < 0.025$



familiar > own

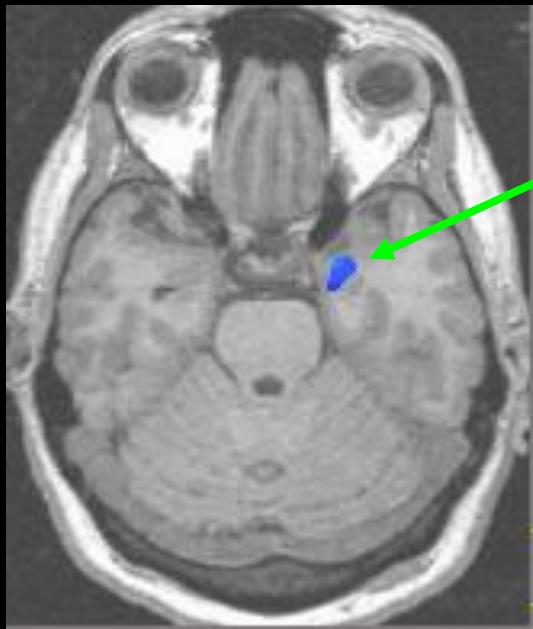


own
> familiar



mothers' study: amygdala

- unknown > own > familiar



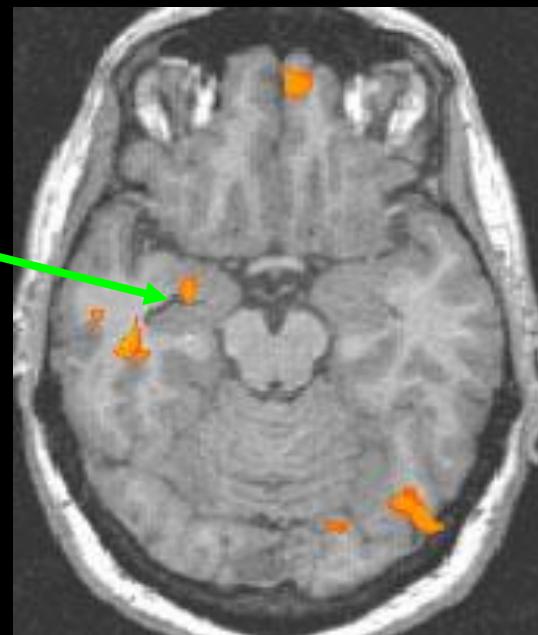
unknown >
familiar



familiar >
unknown



p < 0.025



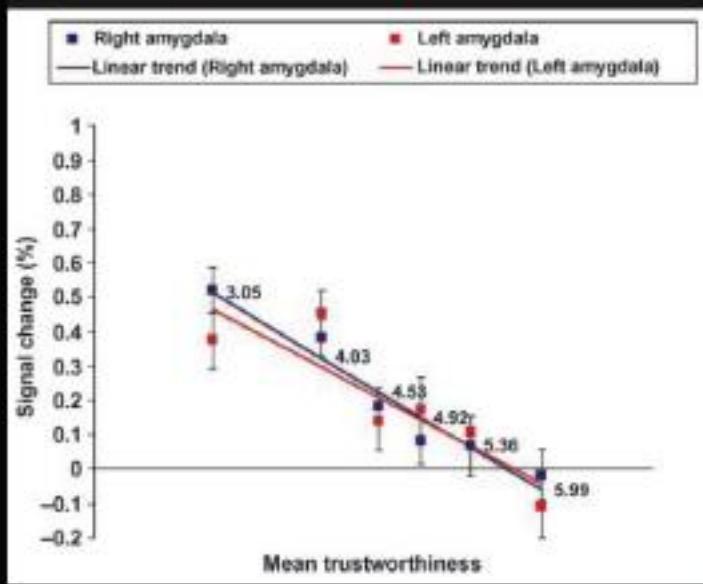
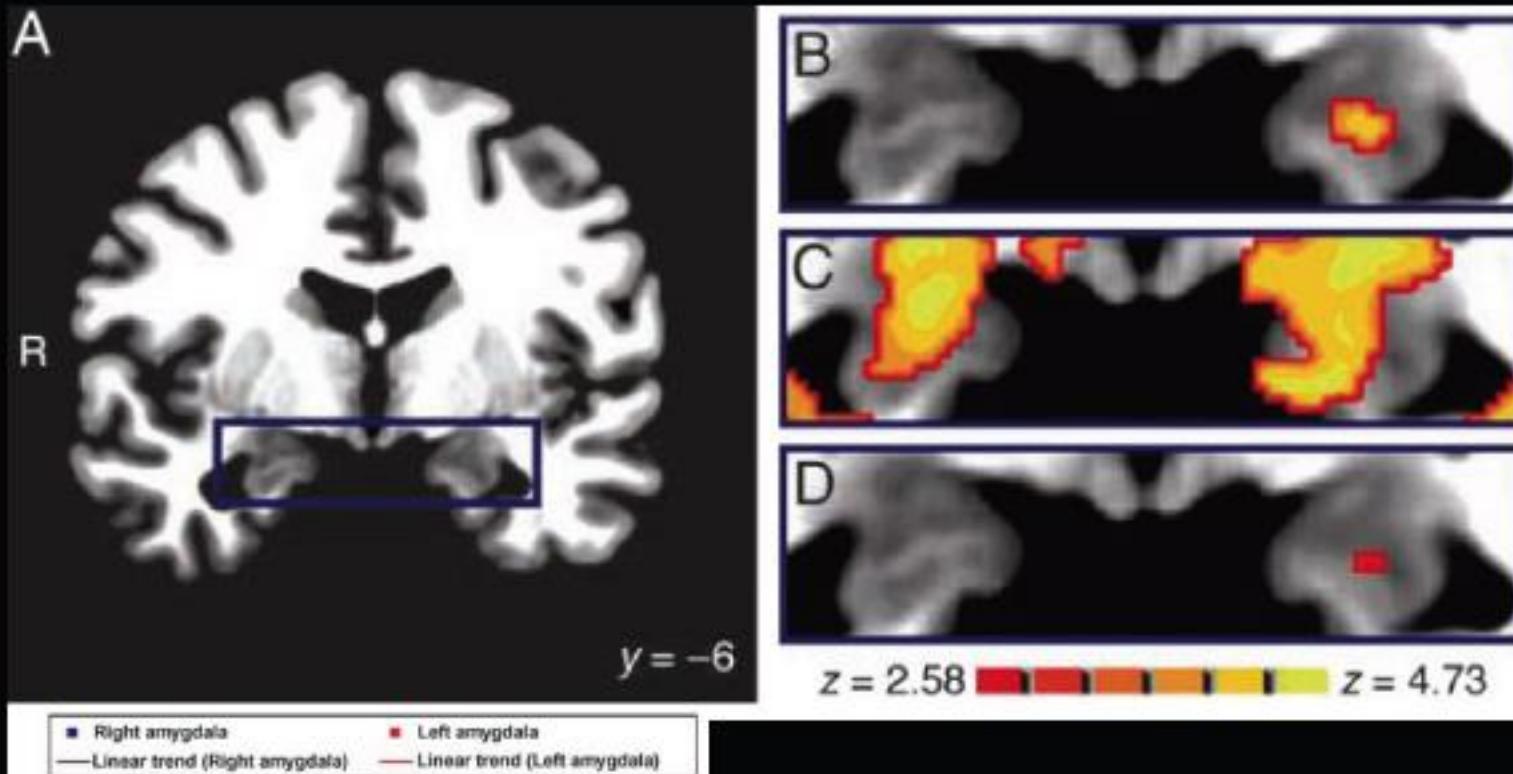
familiar > own



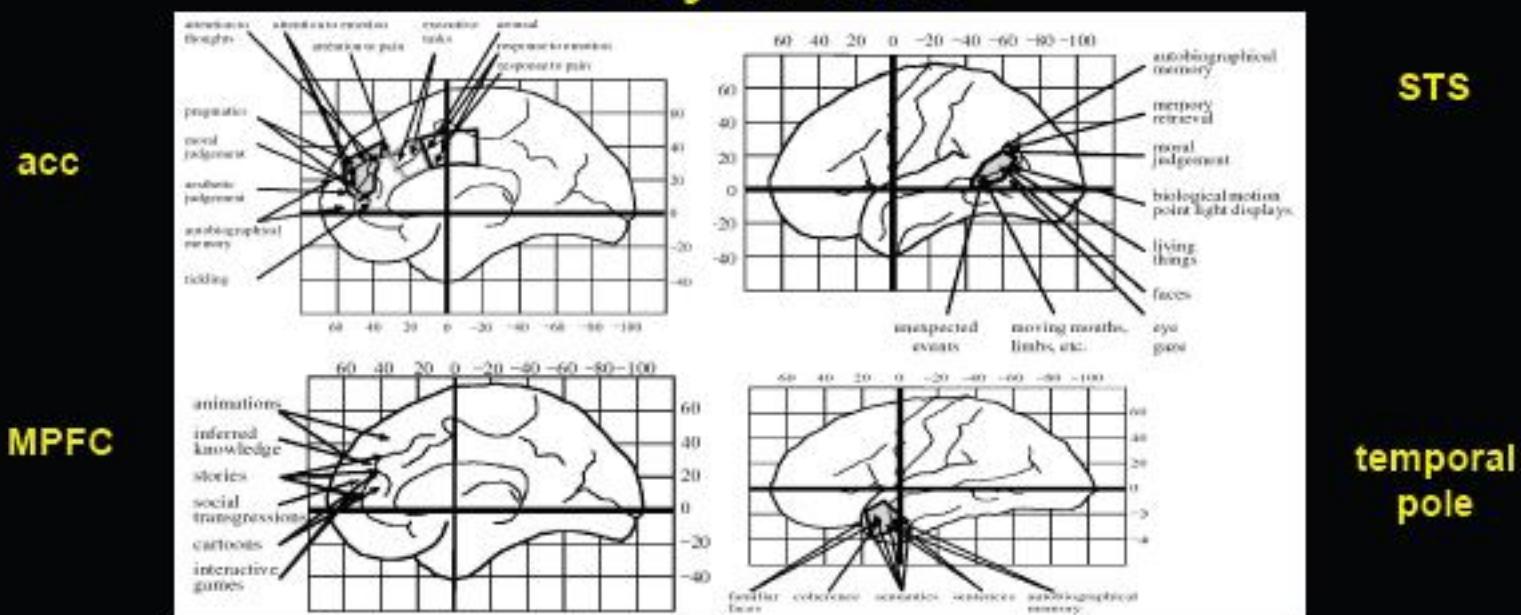
own
> familiar



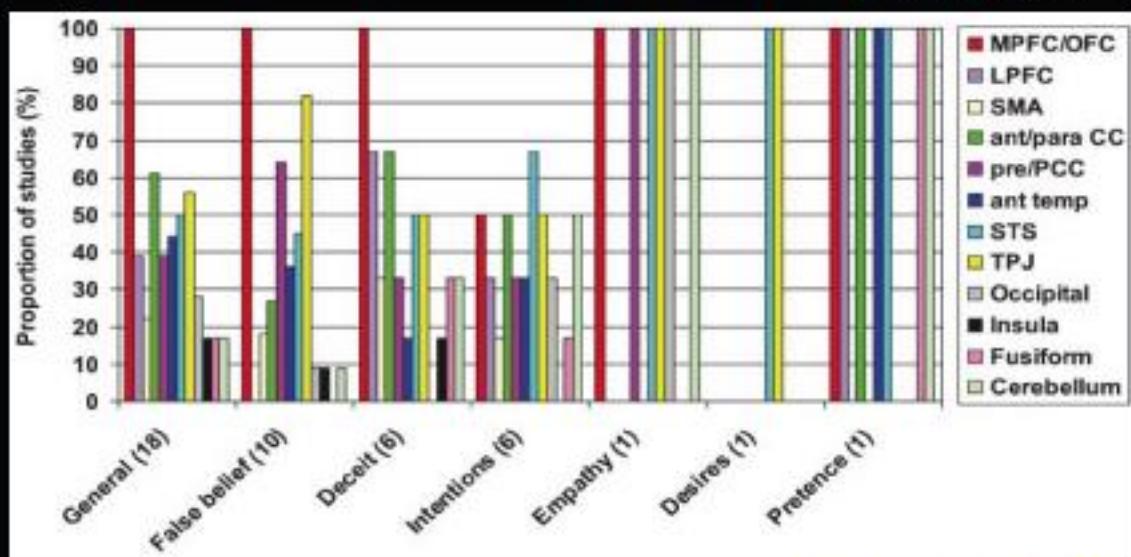
trustworthiness



theory of mind

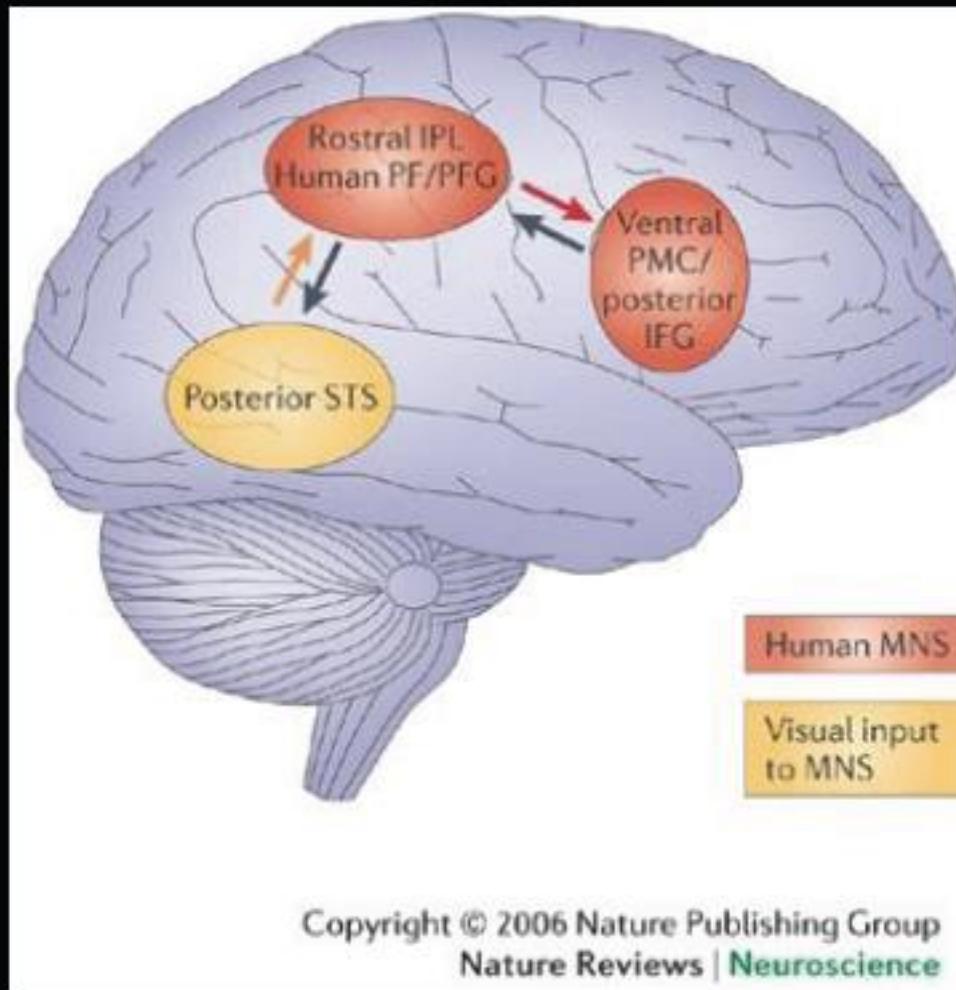


Frith et al., 2003



Carrington et al., 2009

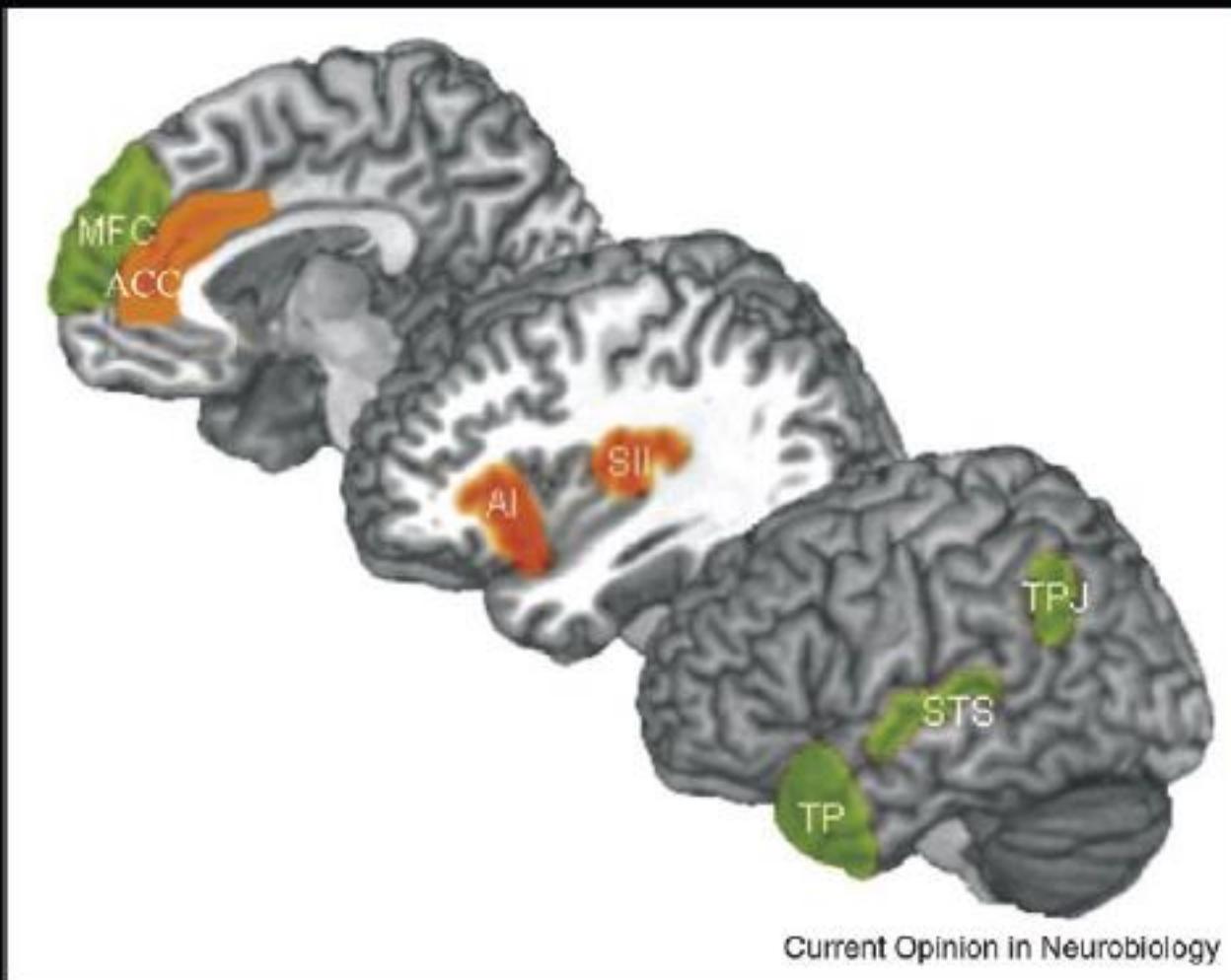
mirror neuron system



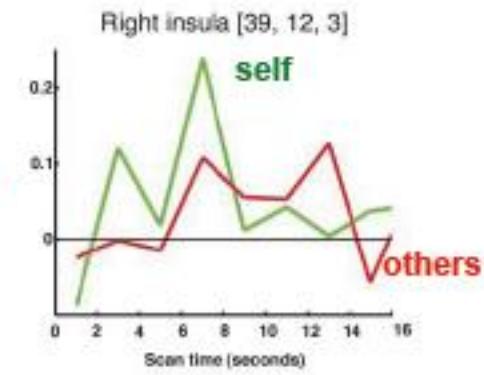
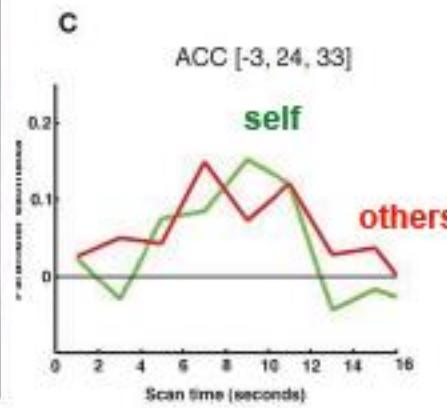
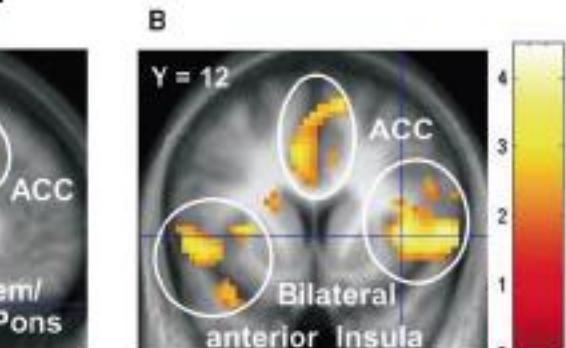
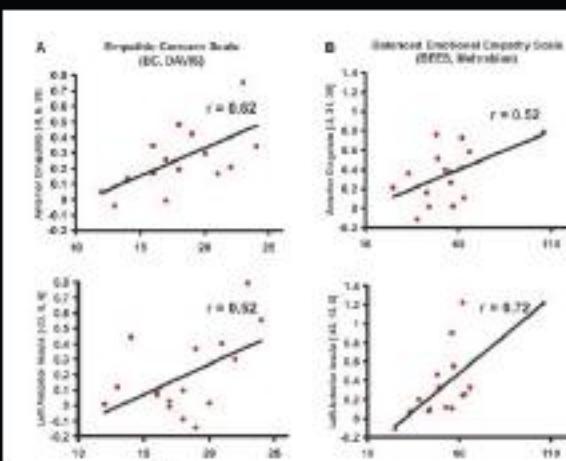
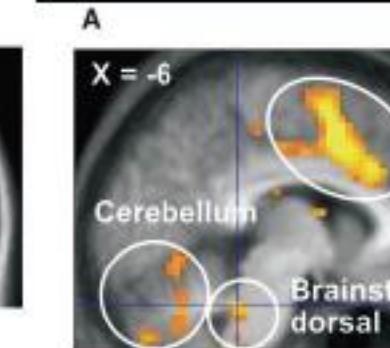
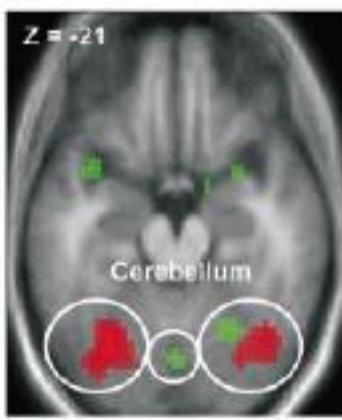
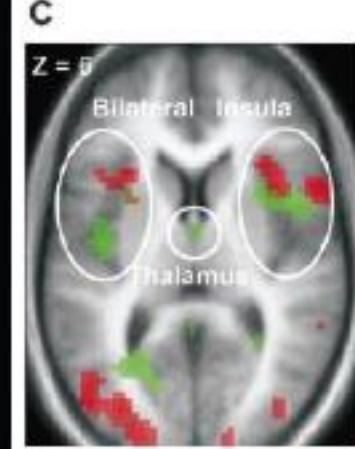
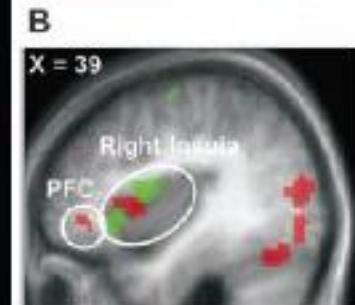
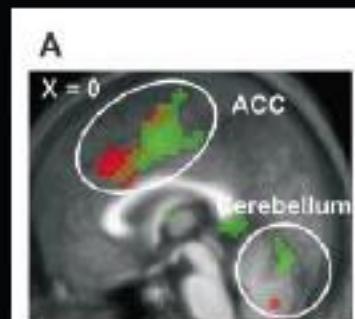
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Nature Reviews | Neuroscience

Iacoboni et al., 2006

what is empathy... in the brain perspective



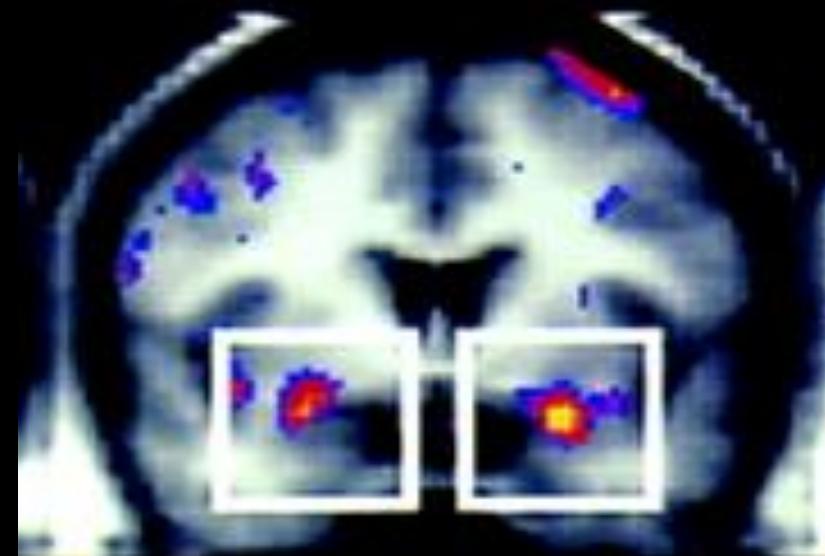
empathy



Fear perception



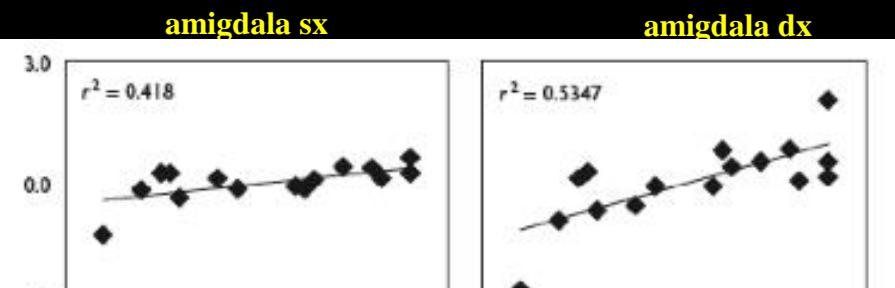
vs



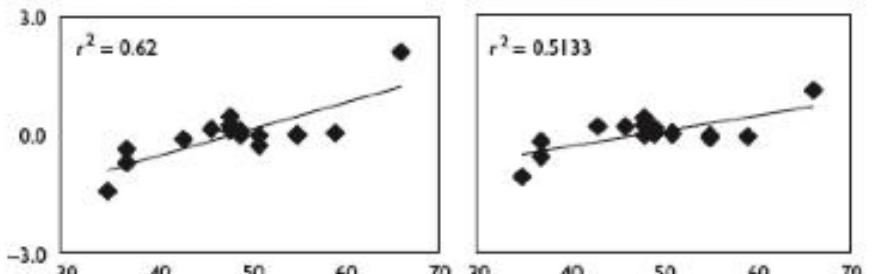
Breiter et al, 1999

From anxiety to phobia

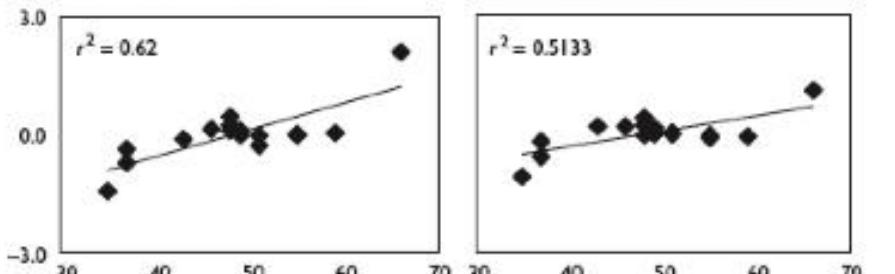
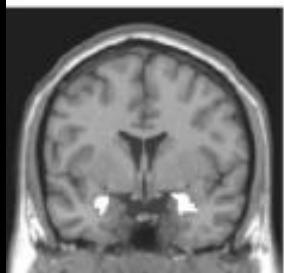
prestational
anxiety



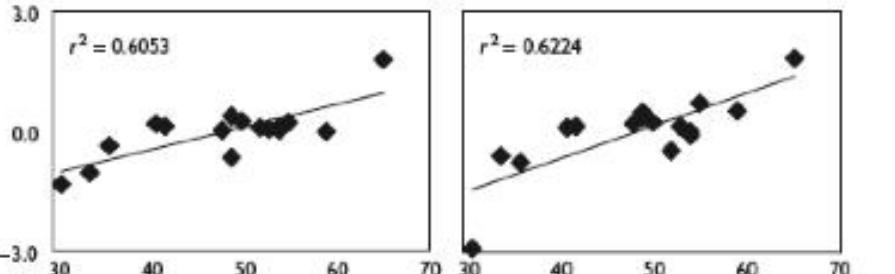
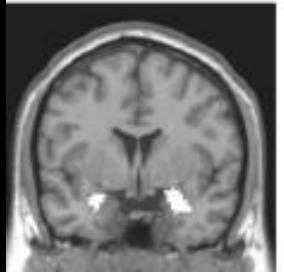
amigdala dx



fear of
negative
evaluation

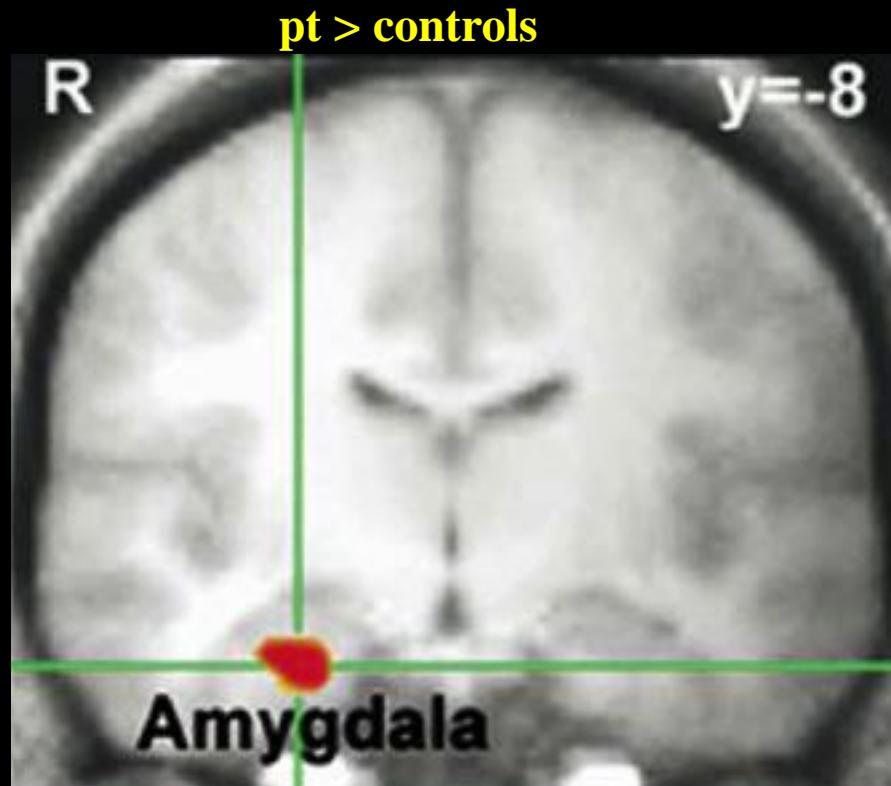


MASC
(Multidimensional
Anxiety
Scale for Children)



Killgore et al., 2005

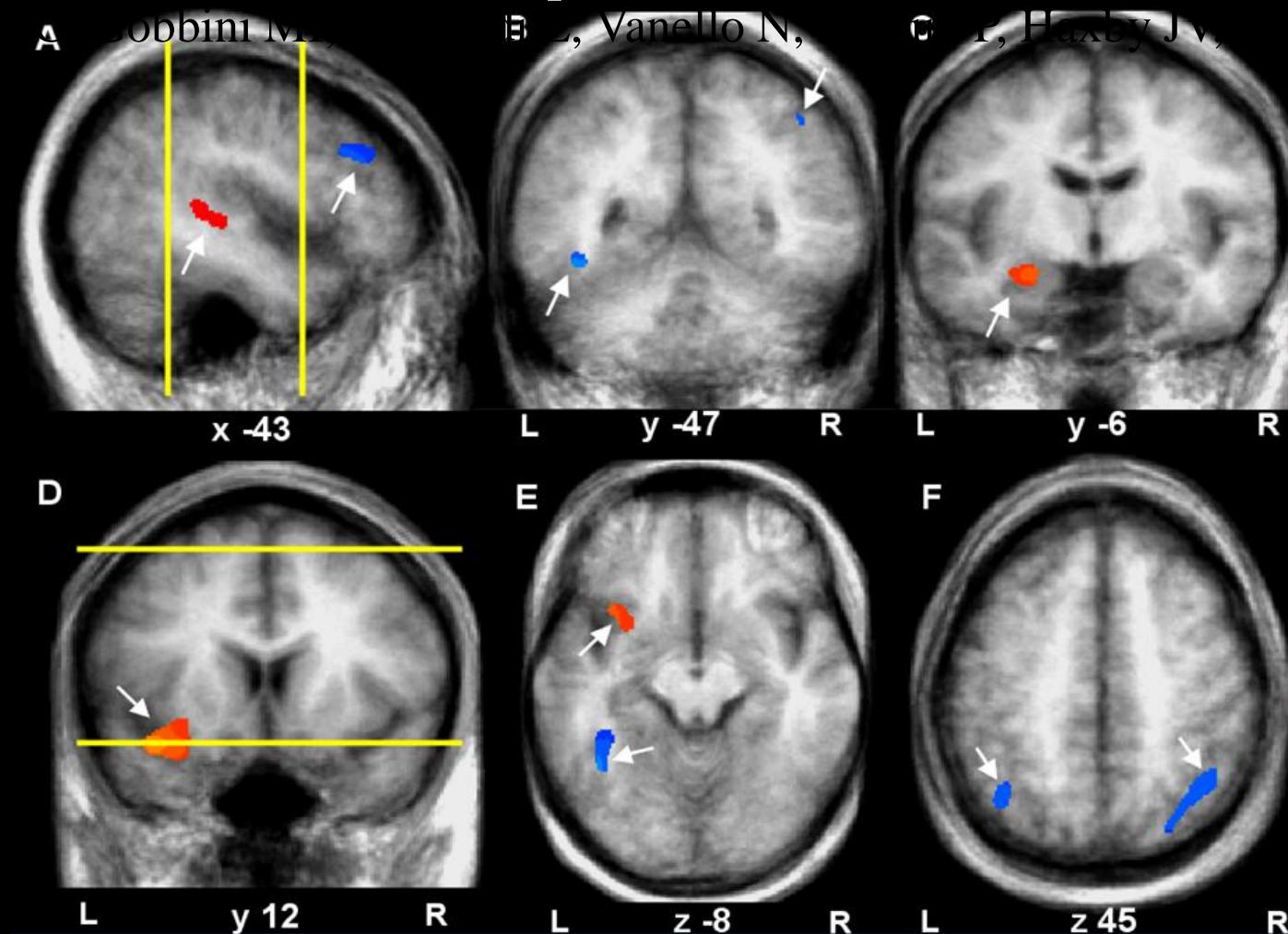
From anxiety to phobia



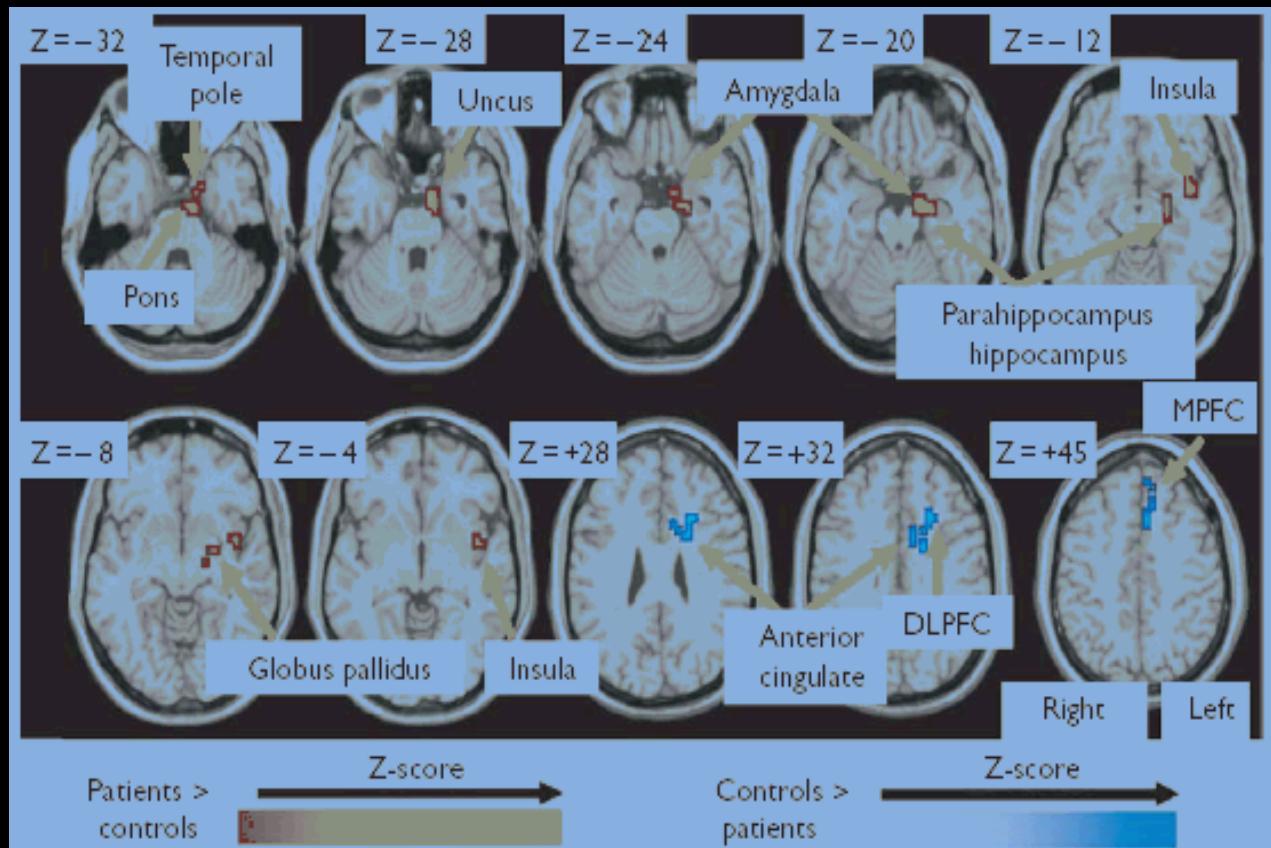
Luan Phan et al., 2006

Social phobia

pts vs control



Social phobia



Loberbaum et al., 2004

Would I be shy in the desert?

Granger causality measures and LSAS in phobics and controls

