

A photograph of a man with brown hair and tattoos on his left arm, wearing a red cape over a blue shirt, hugging a young girl from behind. The girl is wearing a red mask with eye cutouts and a red cape over a blue shirt. They are both smiling against a solid yellow background.

The Myth Busting Power of Dad Science

Dr Anna Machin

Think Dads Conference 4th October 2023

@dr_aMachin annamachin.com

mothers

instinctive

fathers

learn

500,000 years

human fathers are

5% rare

dad \neq genes

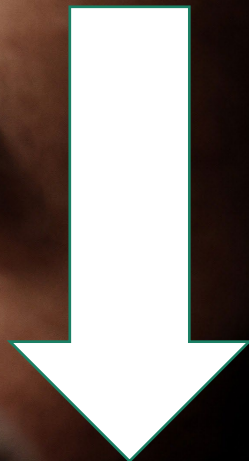
dad = job

Myth 1

Dads are not instinctive
parents, mums are.



Testosterone



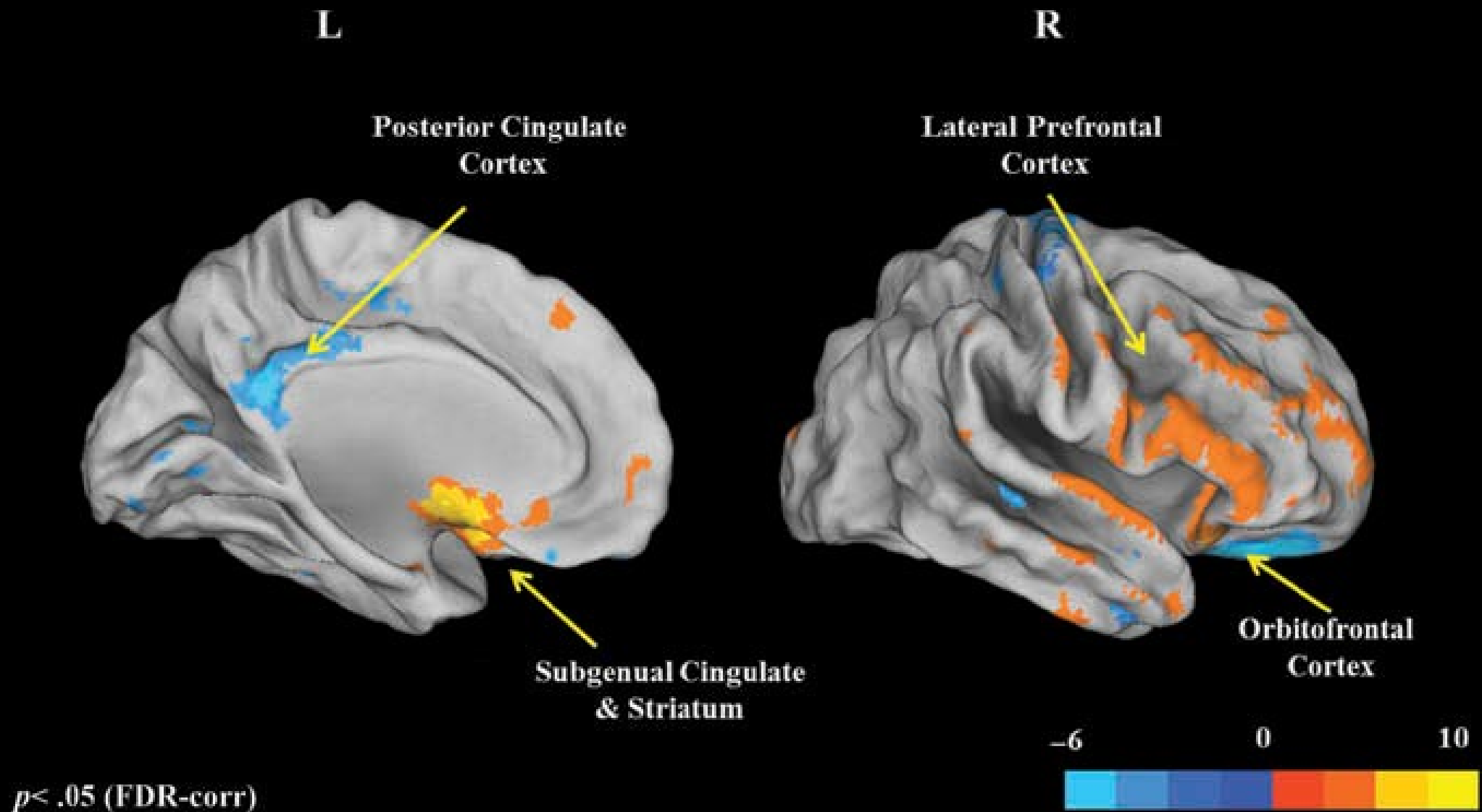


Image: Kim et al. (2014) Neural plasticity in fathers of human infants, *Social Neuroscience*, 9:522-535



Biobehavioural Synchrony

Myth 2

Mums attach to their
babies, dads don't.



Mum=nurture

Dad=nurture + challenge

Attachment

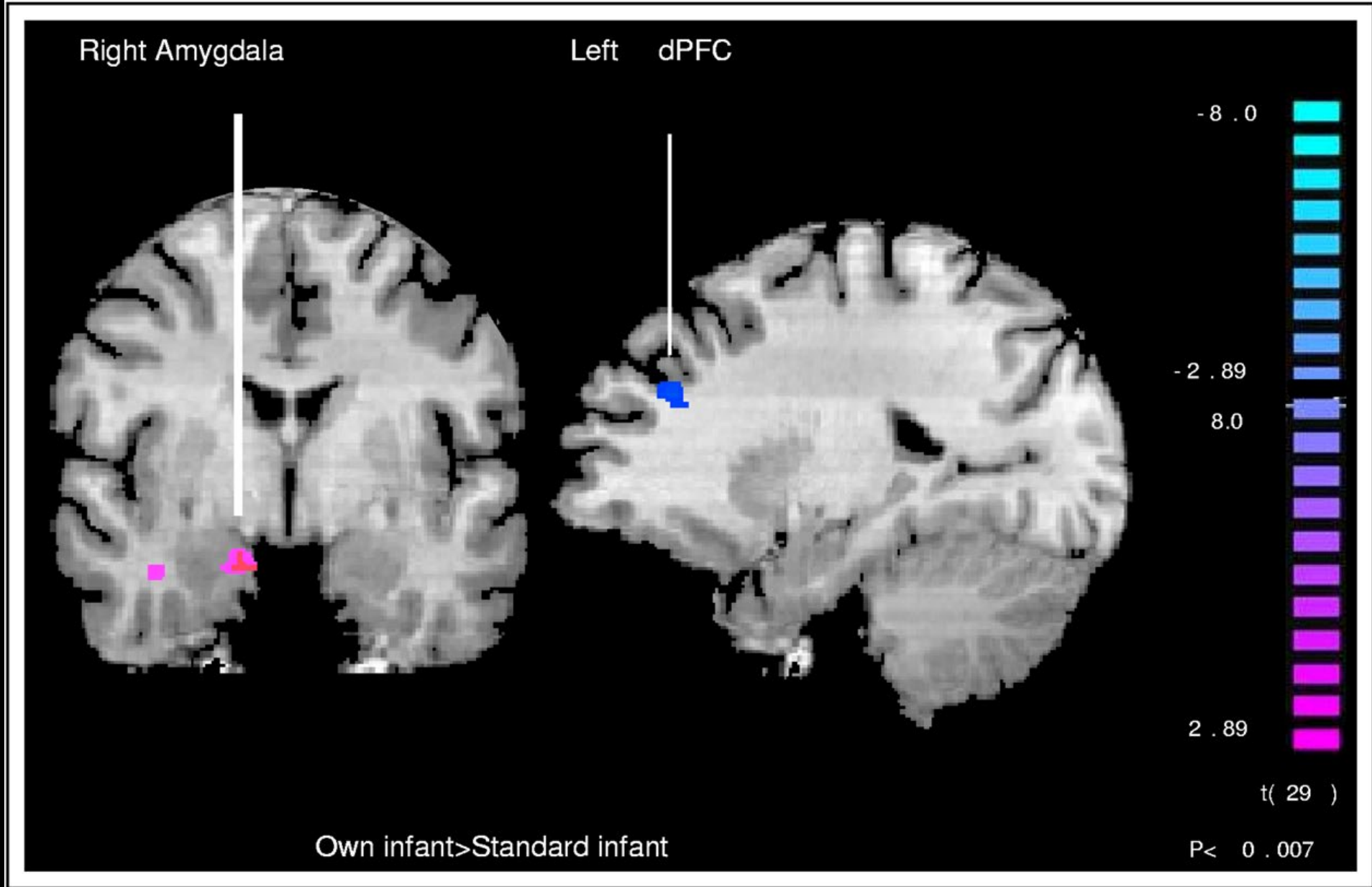


Image: Atzil et al. (2012). Synchrony and Specificity in the Maternal and the Paternal Brain: Relations to Oxytocin and Vasopressin *Journal of the American Academy of Child & Adolescent Psychiatry* 51: 798-811.

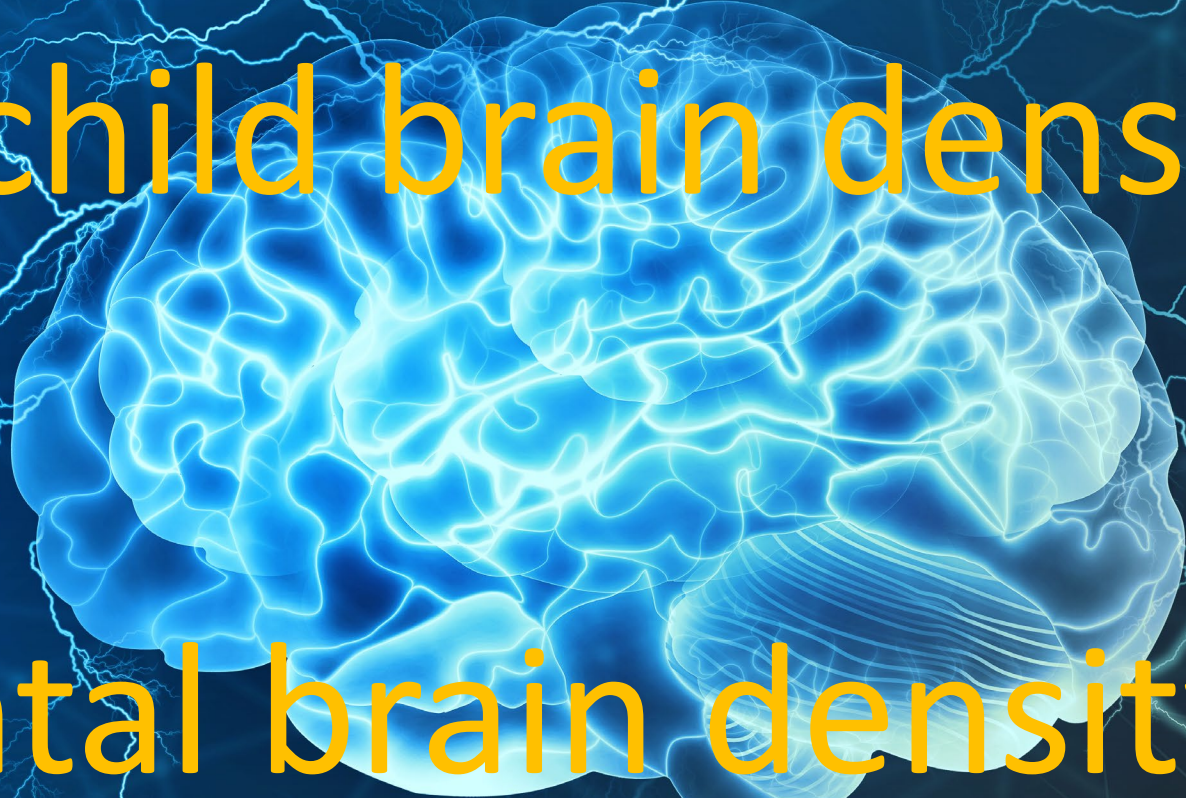
A photograph of a man and a young child. The man, with a beard and short hair, is wearing a white t-shirt and is smiling. He is holding the child in front of him. The child, a young boy with curly hair, is also smiling and wearing a white tank top and blue jeans. The child's arms are outstretched. The background is a wall with horizontal white slats. The text "Preferred play partners" is overlaid in yellow on the image.

Preferred play
partners

Myth 3

Dads play no independent role in child development.

Parental sensitivity =
child brain density



Parental brain density = pre-
school adaptation

Dads scaffold their child's
entry into the world beyond
the family



Pre-school

Adolescence

A photograph of three young children sitting at a small green table in a playroom. One child is stacking colorful rings, while another is playing with a yellow ball. A third child is partially visible in the background. The scene is brightly lit and shows various toys and books on shelves in the background.

Language

Working
Memory

Inhibitory Control

Attention

Executive Function

stimulation of development

MENTAL HEALTH

Self esteem

Loneliness

Importance &
interaction

Depression





High risk: physical survival

Ache

Medium risk: economic survival

Kipsigis

Low risk: social and intellectual survival

Western

Flexible

Evolution

Biology

Unique

Flexibility

EMPOWERED

Diversity

Different

CHANGE



THE LIFE OF DAD

•
THE MAKING
OF THE MODERN
FATHER

•
DR ANNA MACHIN

Thanks for listening
&
Keep in touch

@dr_aMachin
www.annamachin.com