

fMRI to uncover consumer thoughts,

maybe

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MARKET RESEARCH

Marketers Should Pay Attention to fMRI



MARKETING

Brain Imaging Triggers Marketing Breakthroughs

*TAPPING INTO
THE SUBCONSCIOUS*

◆ To get to the truth

BLOG

15 Powerful Examples of
Neuromarketing in Action

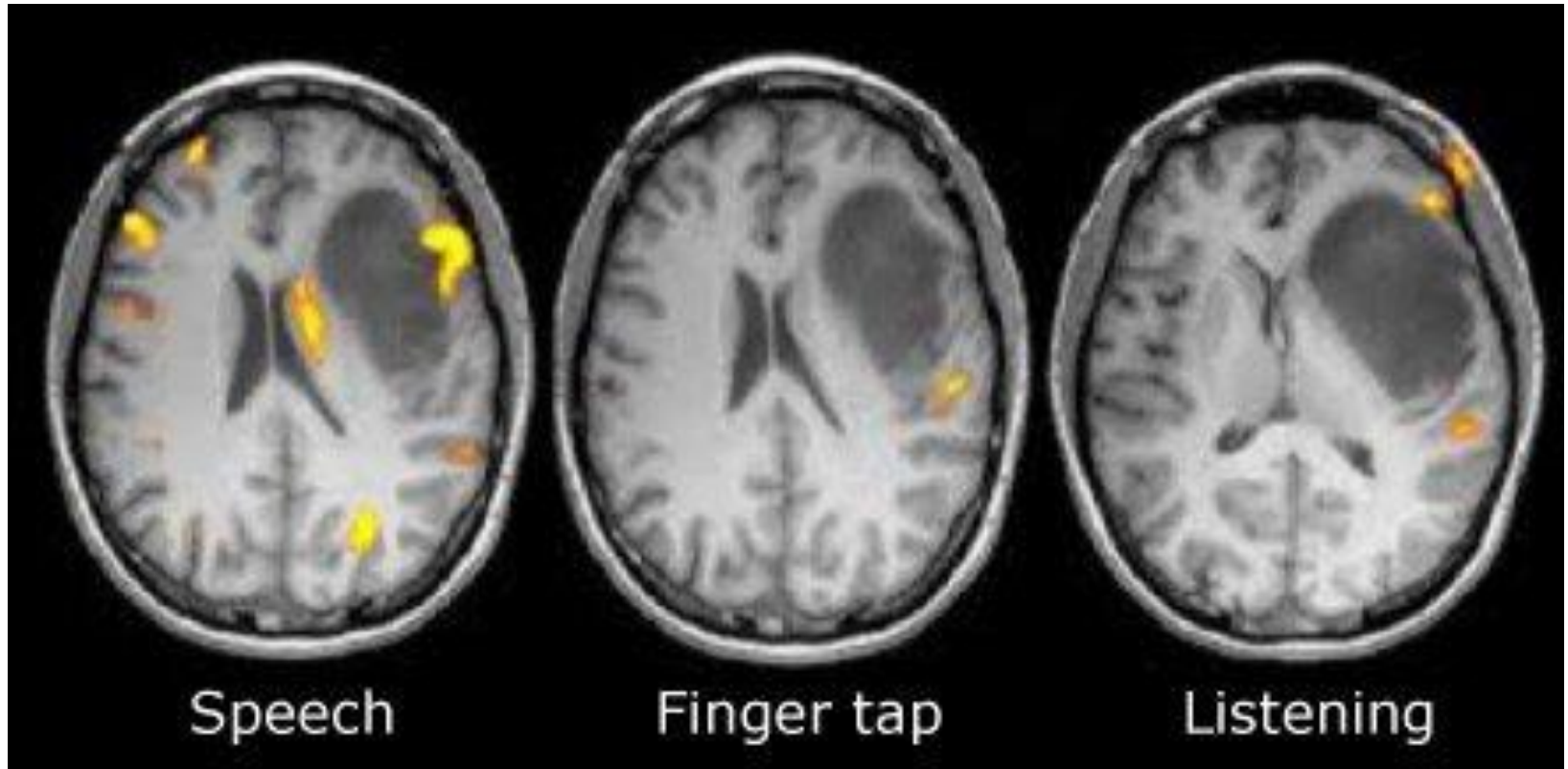
Million dollar question

why do fMRI at all?

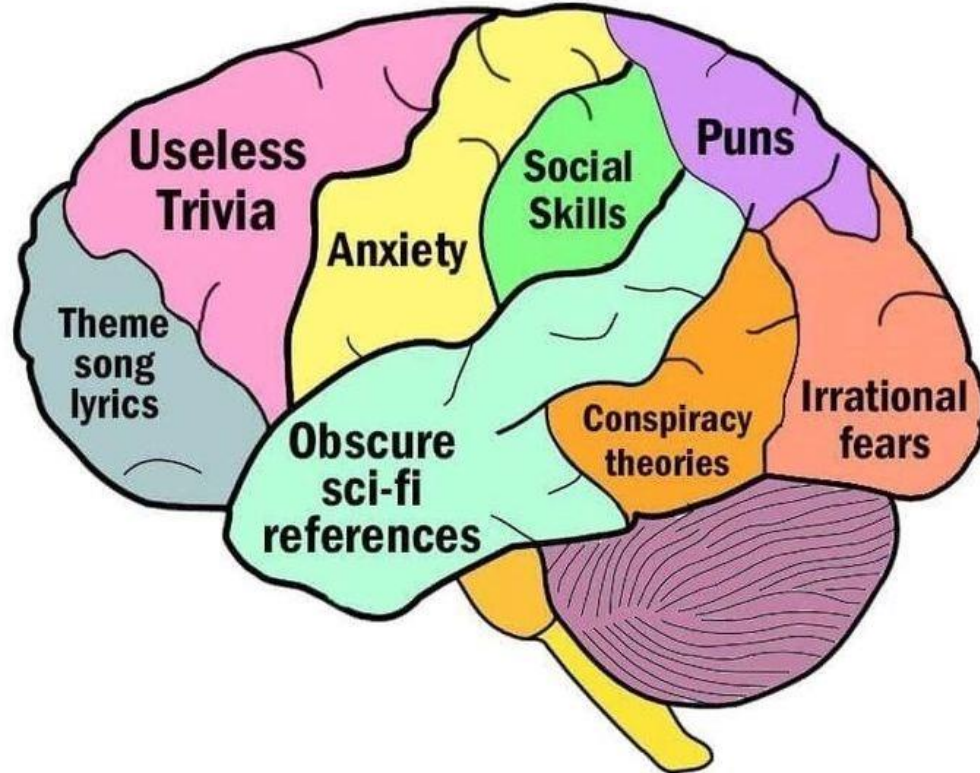
Going directly into the brain



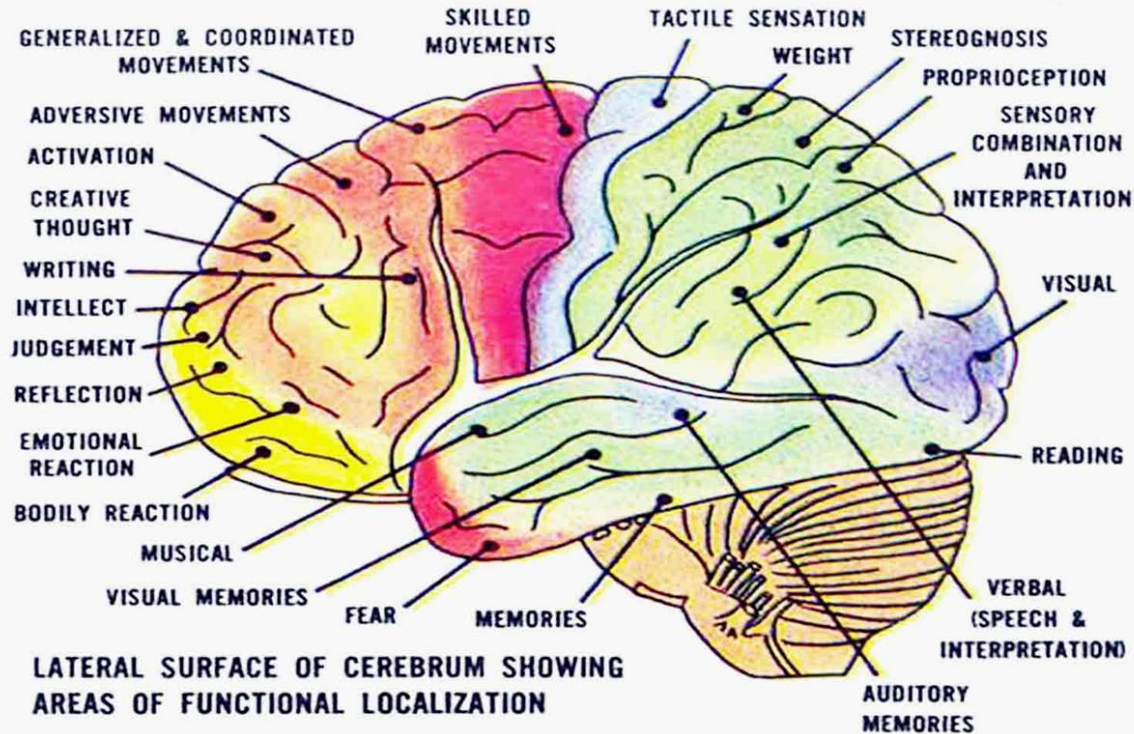
What can we do with fMRI?



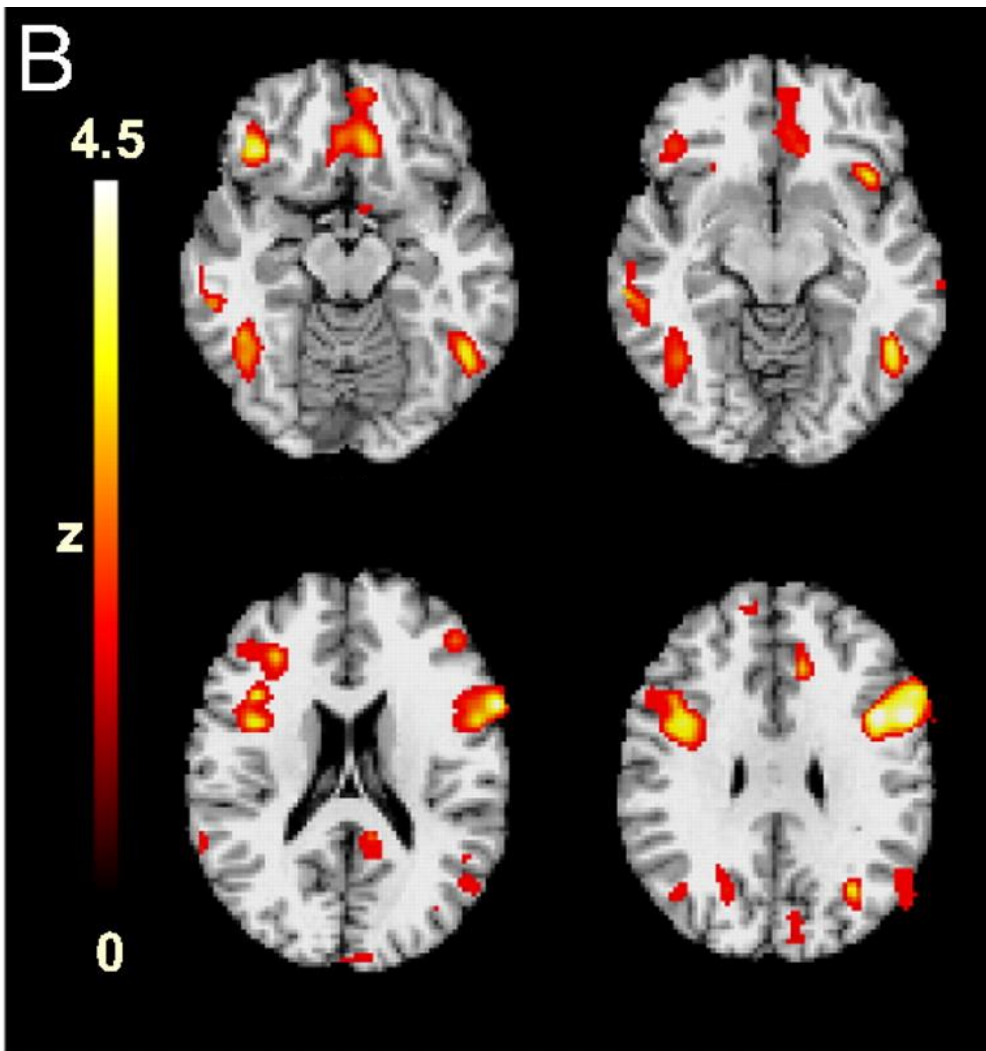
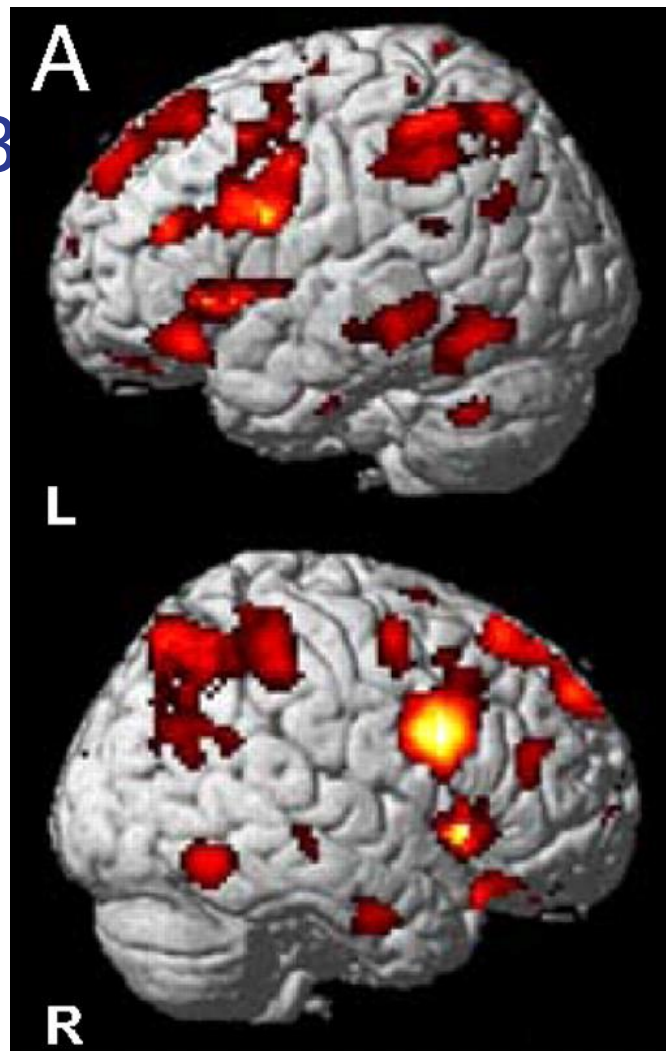
Why I'm Single:



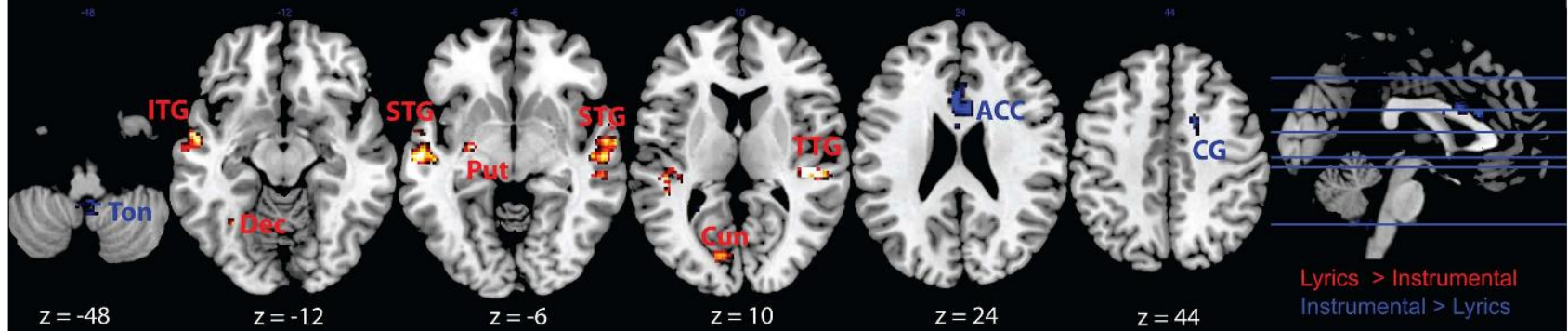
Brain architecture



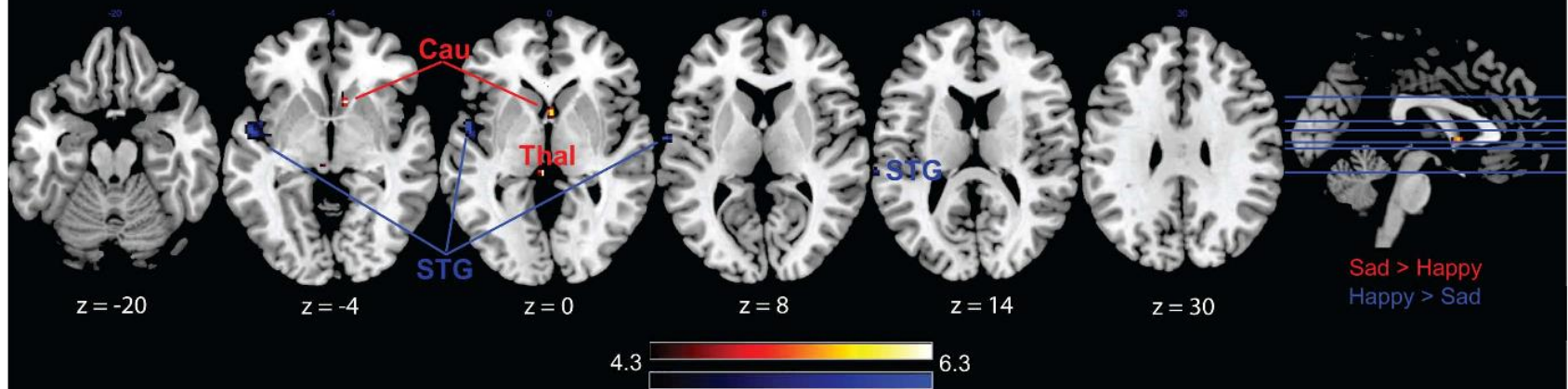
B



Main effect of lyrics

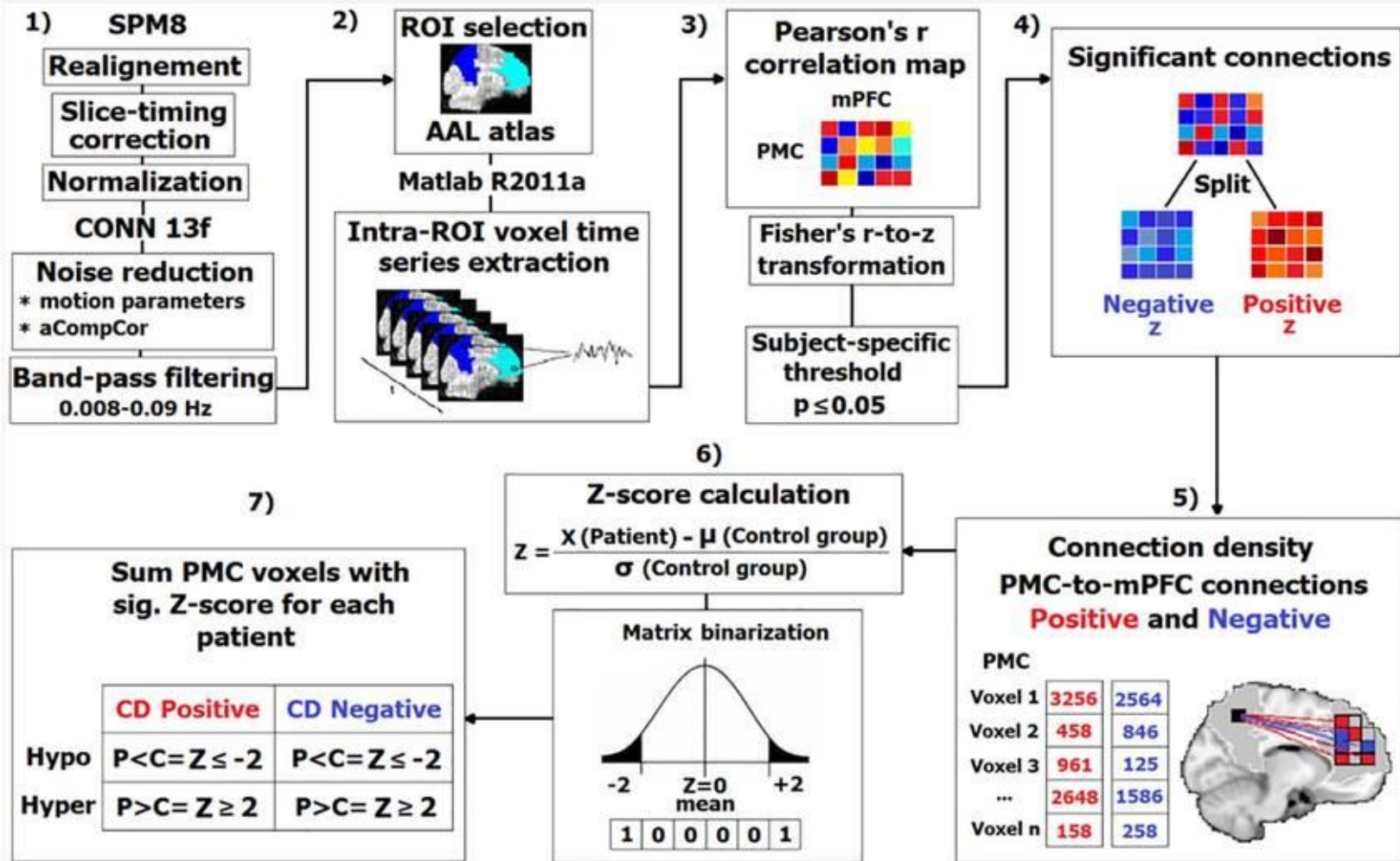


Main effect of basic emotions



Lesson 1

Brain architecture is
messy





$$A = \pi r^2$$

$$C = 2\pi r$$

$$V = \frac{1}{3} \pi r^2 h$$



$$V = \pi r^2 h$$

	30°	45°	60°
sin	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$
cos	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$
tan	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$



$$x\sqrt{3}$$

$$x\sqrt{2}$$

$$\int \sin x dx = -\cos x + C$$

$$\int \frac{dx}{\cos^2 x} = \tan x + C$$

$$\int \tan x dx = -\ln|\cos x| + C$$

$$\int \frac{dx}{\sin x} = \ln\left|\tan \frac{x}{2}\right| + C$$

$$\int \frac{dx}{a^2 + x^2} = \frac{1}{a} \arctan \frac{x}{a} + C$$

$$\int \frac{dx}{x^2 - a^2} = \frac{1}{2a} \ln\left|\frac{x-a}{x+a}\right| + C$$



$$ax^2 + bx + c = 0$$

$$a\left(x^2 + \frac{b}{a}x + \frac{c}{a}\right) = 0$$

$$x^2 + 2\frac{b}{2a}x + \left(\frac{b}{2a}\right)^2 - \left(\frac{b}{2a}\right)^2 +$$

$$\left(x + \frac{b}{2a}\right)^2 - \frac{b^2 - 4ac}{4a^2} = 0$$

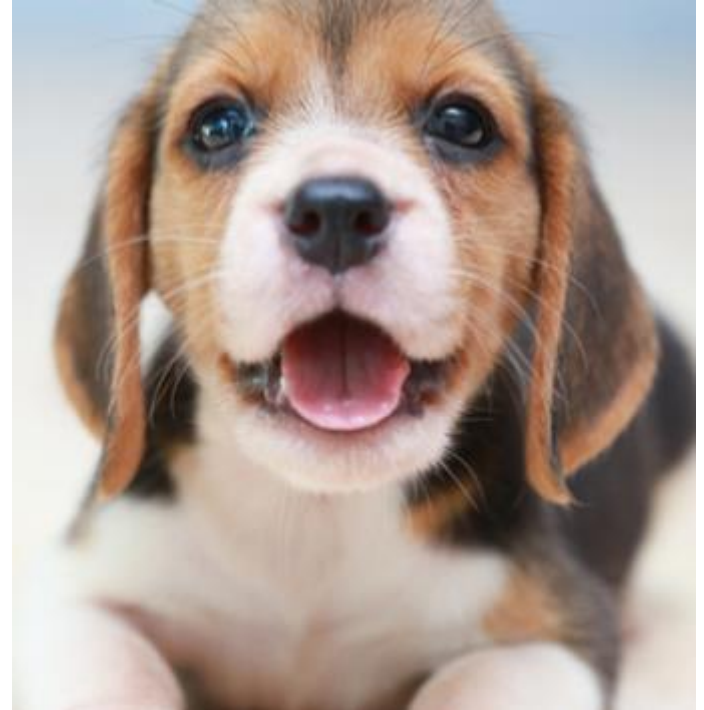
Lesson 2

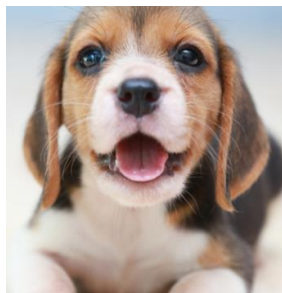
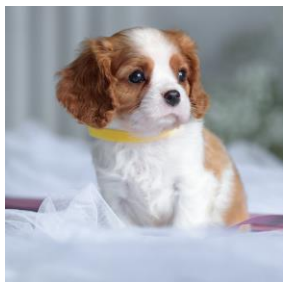
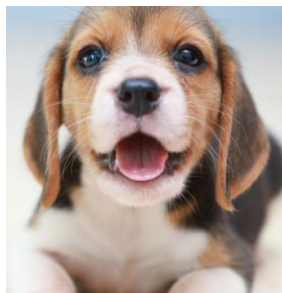
A lot goes into analysis

Designing your study



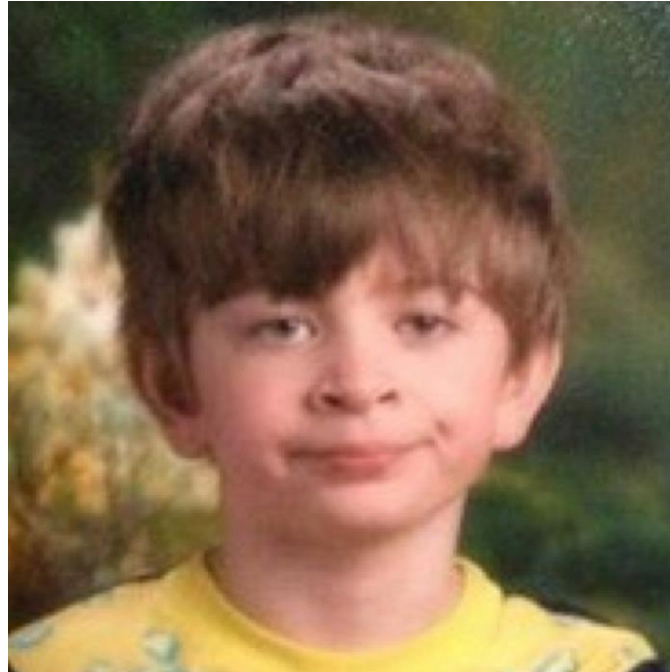
vs





Repetitions are key...

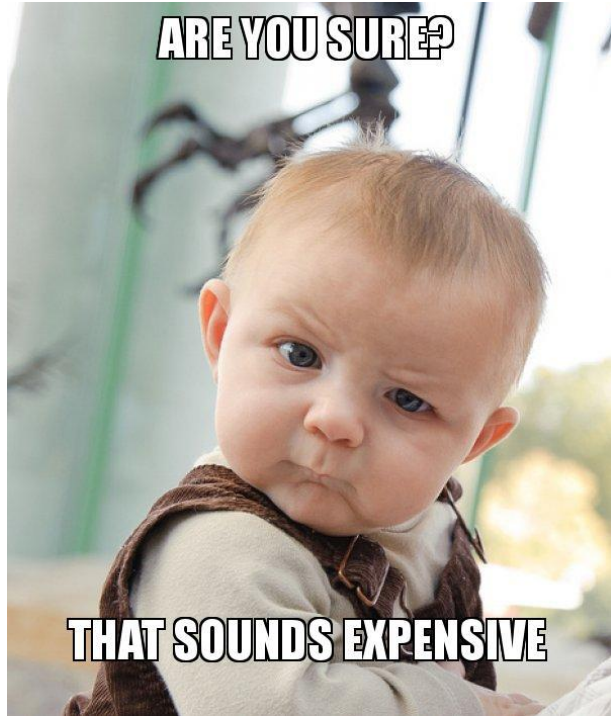
Participants still matter



Lesson 3

Be mindful of design

Let's do some math



Basic costs for 30 subjects
scanner \$750 per hour

Scientist costs
30 hours scanning
30 hours analyzing

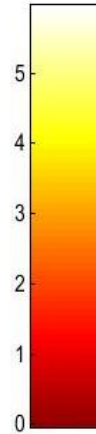
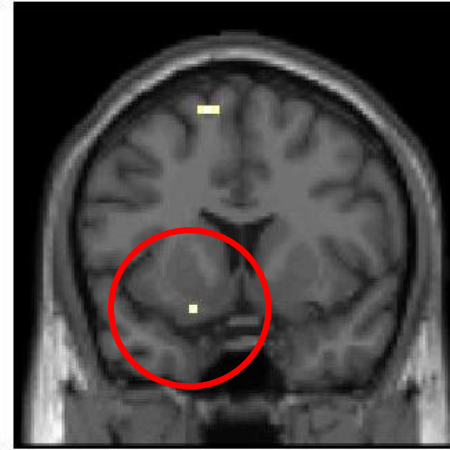
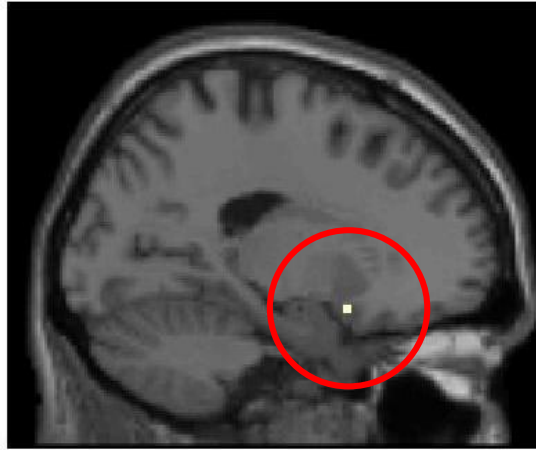
\$22'500 plus human costs!

Lesson 4

If it is cheap, don't trust it

Case Study 1: Creams and odors

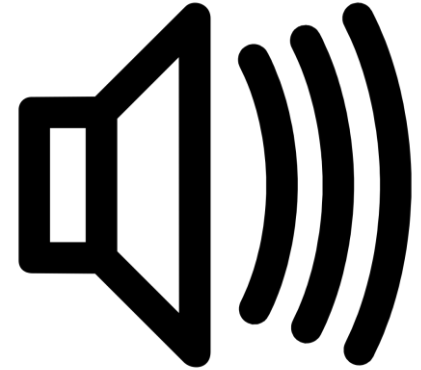


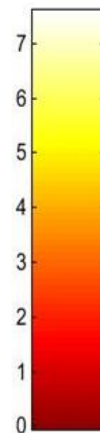
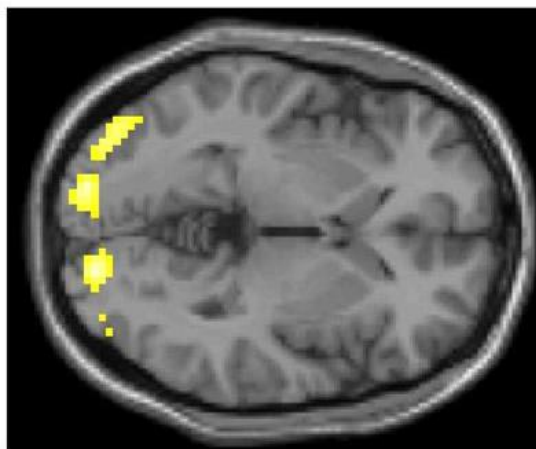
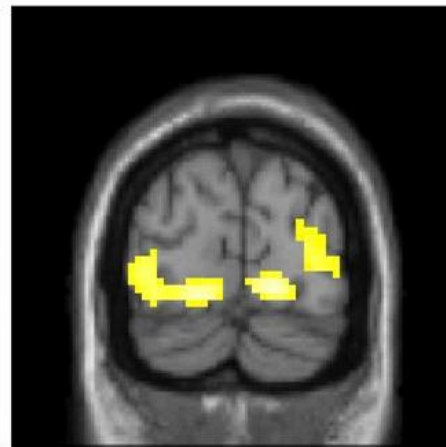
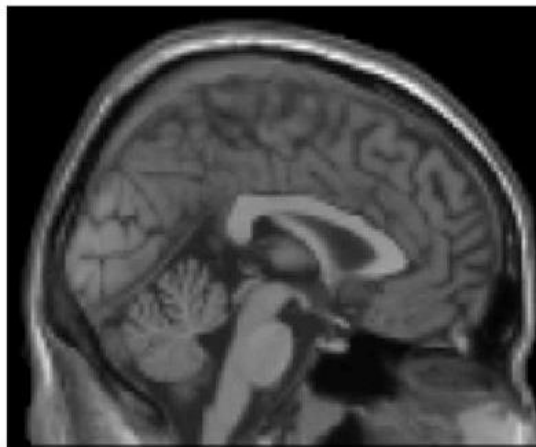


Case Study 2: Video and audio pairings



+



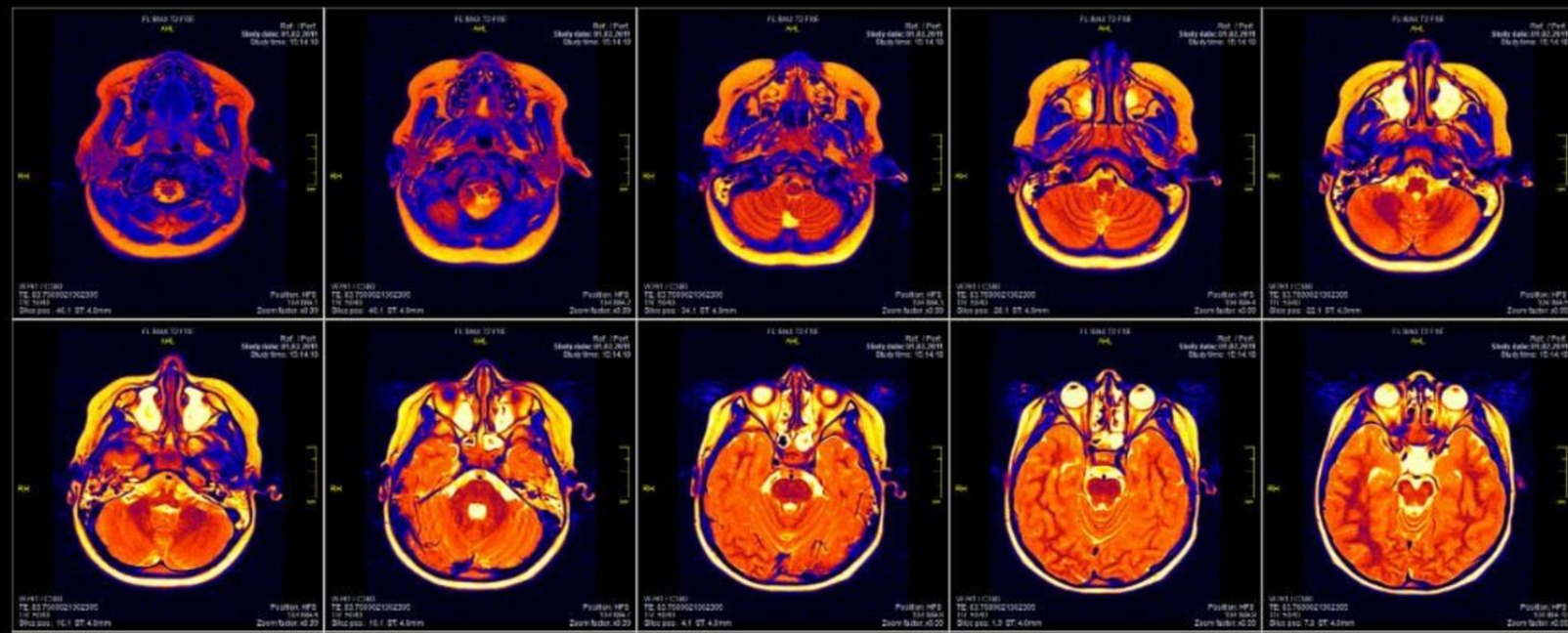


Case Study 3: Health Labels



Lesson 5

You can indeed get insights!



Kondor8/Shutterstock.com

HUMANS

A Bug in fMRI Software Could Invalidate 15 Years of Brain Research

BEC CREW 6 JUL 2016

There could be a very serious problem with the past 15 years of research into human brain activity, with a [new study](#) suggesting that a bug in fMRI software could invalidate the results of

**Scanned a dead
salmon in an fMRI
machine**

**Got significant
results anyway.**





**Scanned a dead
salmon in an fMRI
machine**

MIND

fMRI Gets Slap in the Face with a Dead Fish

**Got significant
results anyway.**

Lesson 6

But always consult

Questions?

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How does fMRI work?

