

this
time: experimental
design
next
time: probability

read: JD
ch. 1, 2, 3,

4, 5, 6, 7, 8

AMST
20 Jan
09

disc. sec. continue

this week (from now to end); lab,
start this week (from now to end)
(if usually on Mon, go to another this week)

week 2 (R - (0) \rightarrow R - (42)) due Tue 3

Feb

no lecture next Tue (^{but} disc. sec &
lab as usual)

$Y =$ outcome variable (brain activity)

$X =$ treatment variable (psych. environment)
(enriched vs deprived)

(1)

(0)

(T)

(C)

②
Z = potential confounding
factor - (PCF) (genetics)

PCFs are the enemy in
exp. design because they create
bias in conclusions, unless
they are controlled for

bias: a systematic tendency
to under- or over-estimate
the truth

unbiased = no
bias

causal diagram

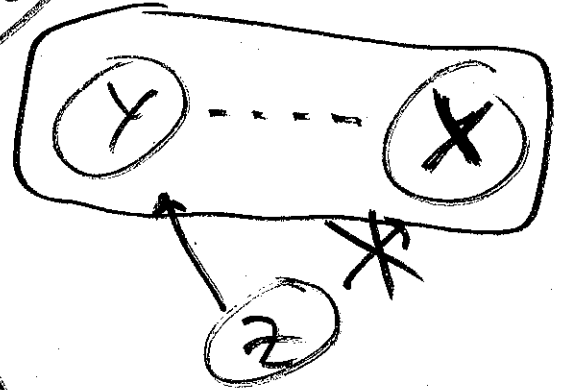


x causes y

x, y are associated

to defeat a PCF:

① at design time:



randomly assign subject to T & C;
this will break the link between
Z & X

to defeat a PCF: hold

it constant in comparison

between T & C; randomization

does this, but there's an
even better way