

Discussion notes will be found in the reader from now on. Pg. R-3 for reference.  
 Check flowchart on R-40.  $\diamond$  diamonds represent decision points

(independent var.)  
 Treatment variable (x): enriched (T) ← treatment (1=T)  
 deprived (C) ← control (0=C)  
 response variable (y): Cortex weight (mg)  
 (outcome var.) (dependent var.)  
 subjects: 120 rats

**controlled** experiment: experimentors have **control** over which subjects are in T, C control  
 observational study: subjects decide T or C

4a

person #	relief? (1=yes, 0=no)	
	conventional	acupuncture
1	0	1
2	0	0
⋮	⋮	⋮
31	0	1
mean	0%	$\frac{30}{31} = 97\%$

population: other (not these 31 people) future spinal puncture patients  
 sample: these 31

Is this sample representative of this pop.?  
 → **similar** to in all **relevant** ways

(discussed placebo effect, no notes because we'll talk more about it in class tonight)  
 bias - systematic tendency to produce the wrong answer

4b CABG - referred to as "cabbage patients"  
 biased on the high side

5 T: eating cottage cheese      response: weight gain      observational study

x: cottage cheese      can't conclude the direction of causation.  
 ↑ y: fat

y outcome

x treatment

z potential confounding factors (PCFs)

(↳ screws up the way we think y & x are related)

z is a PCF if...

- ① y, z may plausibly be associated with each other
- ② x, z may plausibly be associated with each other

(ex: contraception pills -observational exp. pill caused increase in blood pressure)  
x = treatment, y = blood pressure, z = age