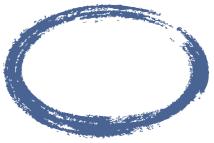
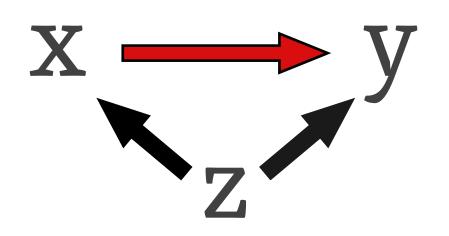




## INCLUDING THE CONFOUNDER

```
m2 = ulam(alist(
   y \sim normal(a + bx*x + bz*z, sigma),
   a \sim normal(0, 0.3),
   bx \sim normal(0, 0.3),
   bz ~ normal(0, 0.3), # New parameter for confounder
   sigma ~ exponential(1)
), data = list(y = y, x = x, z = z)
> precis(m2)
      mean sd 5.5% 94.5% n_eff Rhat4
    0.95 0.14 0.72 1.17 942 1
bx 1.06 0.10 0.91 1.22 837 1
bz 0.82 0.12 0.62 1.02 889
sigma 1.09 0.08 0.97 1.22 1200
```











## INCLUDING THE CONFOUNDER

```
m2 = ulam(alist(
    y \sim normal(a + bx*x) + bz*z, sigma),
    a \sim normal(0, 0)
    bx \sim normal(0, 0.3),
    bz ~ normal(0, 0.3), # New parameter for confounder
    sigma ~ exponential(1)
  data = list(y = y, x = x, z = z))
  precis(m2)
       mean sd 5.5% 94.5% n_eff Rhat4
       0.95 0.14 0.72 1.17 942
a
       1.06 0.10 0.91 1.22 837
bx
            0.12 0.62 1.02 889
bz
sigma 1.09 0.08 0.97 1.22 1200
```

## POSTERIOR DISTRIBUTION OF $\beta_{xy}$ WITH THE CONFOUNDER

