

(a) Database Tables

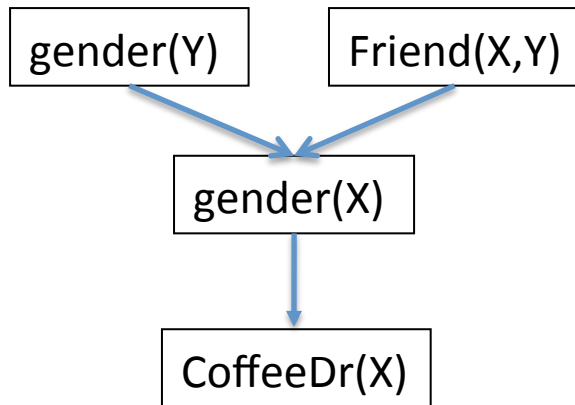
Person (excerpt)

Name	Gender	Coffee Drinker
anna	W	T
bob	M	F
....

Friend (excerpt)

Name1	Name2
anna	bob
bob	anna
...

(b) Bayes net structure



(c) Conditional probabilities

$$P(g(Y) = M) = .5$$

$$P(F(X,Y) = T) = .1$$

$$P(g(X) = W \mid g(Y) = W, F(X,Y) = T) = .7$$

$$P(g(X) = M \mid g(Y) = M, F(X,Y) = T) = .7$$

$$P(g(X) = M \mid g(Y) = M, F(X,Y) = F) = .5$$

$$P(g(X) = W \mid g(Y) = W, F(X,Y) = F) = .5$$

$$P(cd(X) = T \mid g(X) = M) = .6$$

$$P(cd(X) = T \mid g(X) = W) = .8$$

...