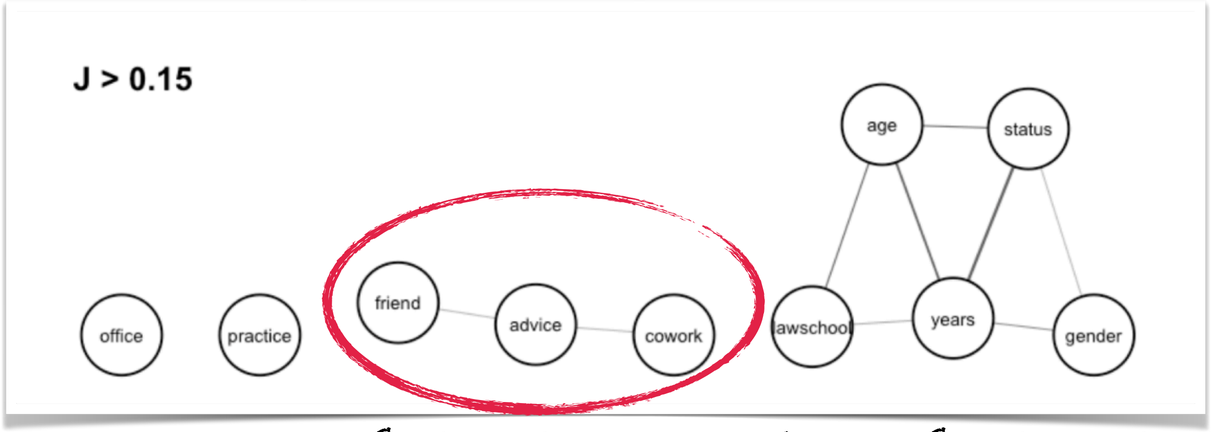
example: network study of corporate law firm

☑ divergence tests of goodness of fit: dyad variables



example of structural models of interest:

friend ⊥ cowork | advice

gender ⊥ status | years

(friend, cowork. advice) ⊥ (age, status, years)

```
# install development version from GitHub
# install.packages("devtools")
devtools::install_github("termehs/netropy")
```

```
div_gof(dat, var1, var2, var_cond = NULL)
```

```
div_gof(dat = dyad.var, var1 = "friend", var2 = "cowork", var_cond = "advice")
```

```
## the specified model of conditional independence cannot be rejected
```

```
##      D df(D)
## 1 0.94    12
```

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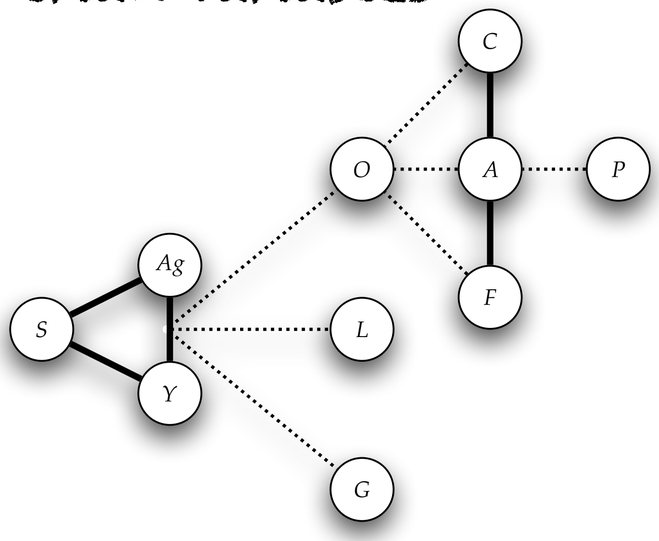
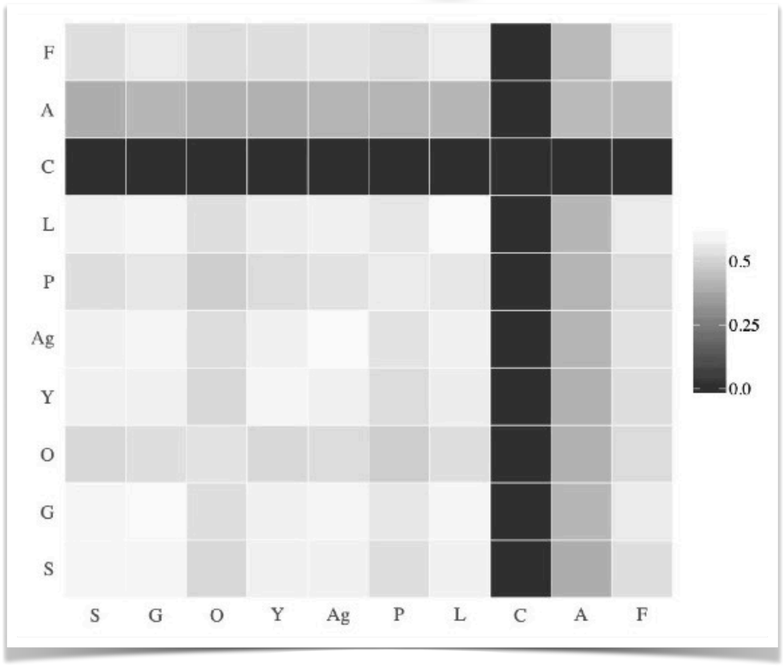
triad variables



dyad independence models
not sufficient to explain triadic behavior

can attributes of adjacent vertices explain dyad dependence?



blockmodel
not sufficient to explain triadic behavior

is there a dependence between the different relations?

multiplexity model
almost perfect fit for model $C \perp F \,|\, A$