

## 4.4 : Measure of dependence

① Cramer's Cont. Coeff.

$$R_1 = \frac{\chi}{N(q-1)} \quad q = \text{smaller}(r \text{ or } c)$$

$$or = \sqrt{\frac{I}{N(q-1)}} \quad ; \text{Cramer's coefficient}$$

② Pearson Cont. Coeff

$$R_2 = \sqrt{\frac{\chi}{N+1}} \quad ; \text{McNemar}$$

$$R_2(\text{max}) = \sqrt{\frac{q-1}{q}}$$

③ Pearson Mean Squ. Conting. Co.

$$R_3 = \frac{I}{N}$$

④ Yule & Kendall

$$R_4 = \sqrt{\frac{\chi}{N\sqrt{(r-1)(c-1)}}$$

Yule & Kendall

$$R_6 = \frac{ad-bc}{ad+bc}$$

Jves & Gibbon

$$R_7 = \frac{(a+d)-(b+c)}{a+b+c+d}$$

⑤

a	b
c	d

The Phi Coefficient

$$R_5 = \frac{ad-bc}{\sqrt{n_1 n_2 c_1 c_2}}$$