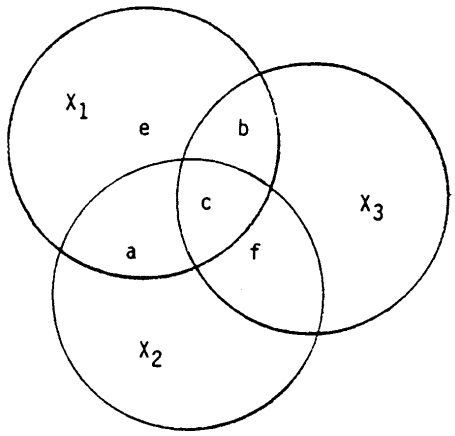
GRAPHIC REPRESENTATION OF KEY MULTIVARIATE CORRELATION STATISTICS



Bivariate Correlations

$r^2_{12} = a + c$

$r^2_{13} = b + c$

$r^2_{23} = c + f$

Multiple Correlation

$R^2_{1.23} = a + b + c$

Semi-partial (Part) Correlations

$r^2_{1(2.3)} = R^2_{1.23} - r^2_{13} = a$

$r^2_{1(3.2)} = R^2_{1.23} - r^2_{12} = b$

Partial Correlations

$r^2_{12.3} = r^2_{1(2.3)}/(1 - r^2_{13}) = a/(a + e)$

$r^2_{13.2} = r^2_{1(3.2)}/(1 - r^2_{12}) = b/(b + e)$

N.B.: $s_1^2 = s_2^2 = s_3^2$