Simple Regression

$r^2 = \beta^2 = R^2$

Y

X_1
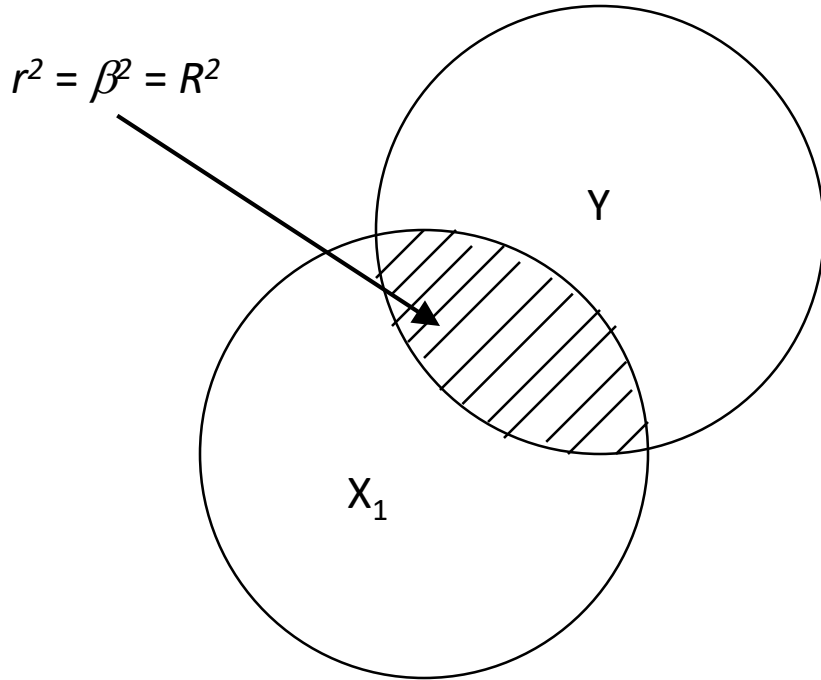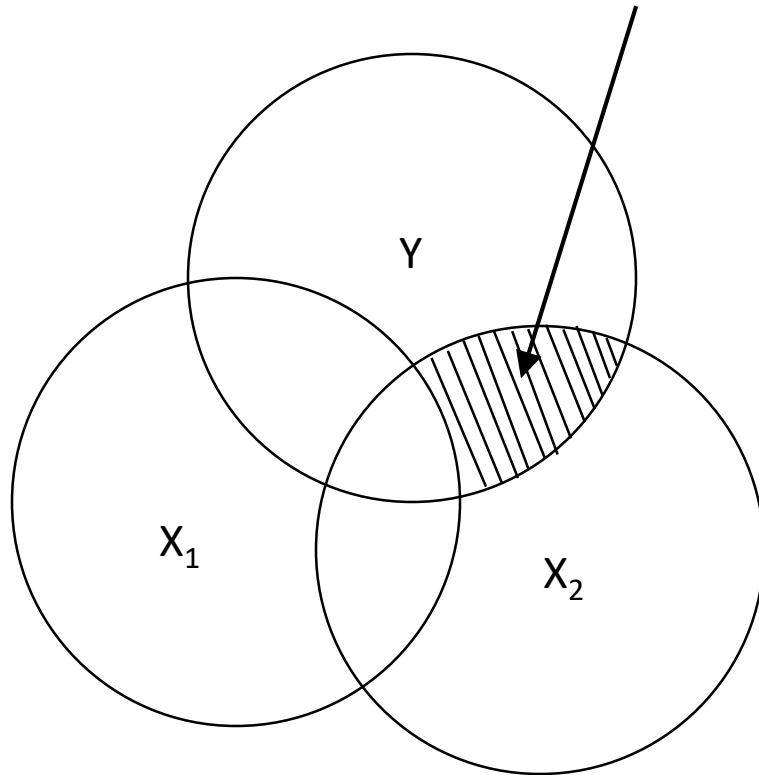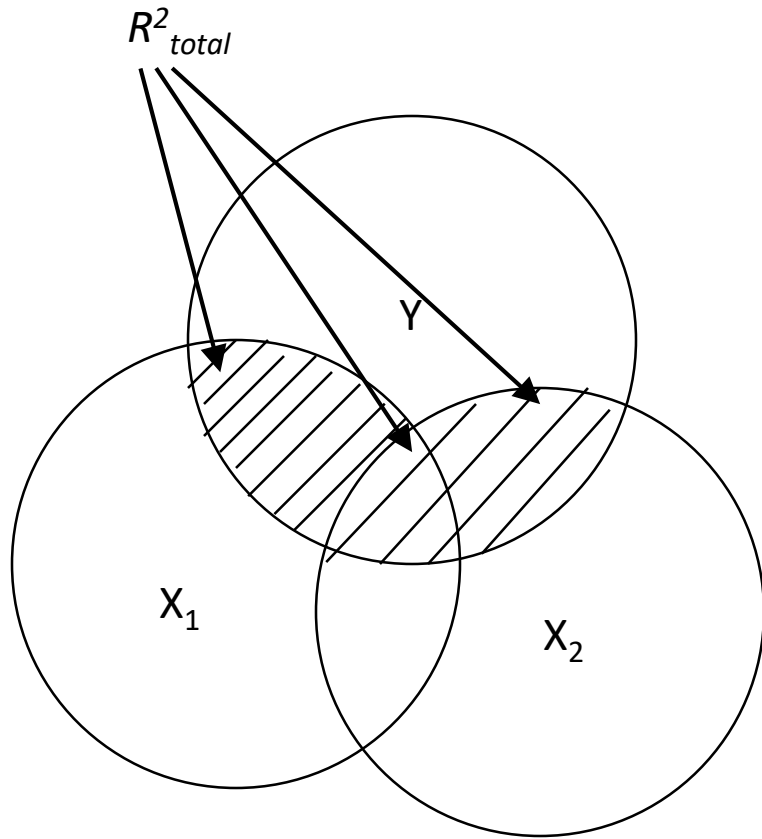
Multiple Regression

Unique variance region for X_2 captured by β and <u>approximately</u> equal to β^2

This region represents variance accounted such as captured by r^2 in correlation, but note that β^2 is never reported (we will discuss two more exact metric of this area when we discuss hierarchical regression and semi-partial correlation coefficients.

Multiple Regression

Hierarchical Multiple Regression

Equal to R^2_{change} if X_2 entered second, equal to sr^2, and approximately equal to β_2^2

Y

X_1

X_2
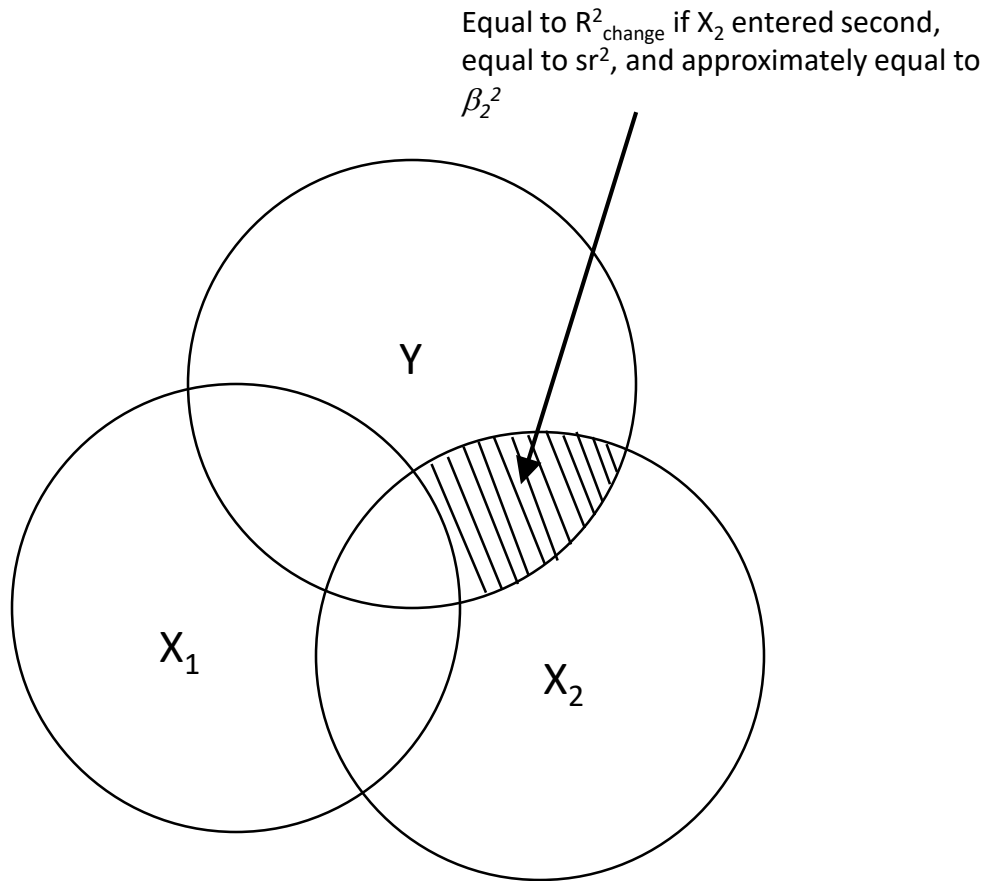
Note that β^2 is never reported, because it does not have an exact relationship to the percentage unique variance accounted for in Y as sr^2 or R^2-change does