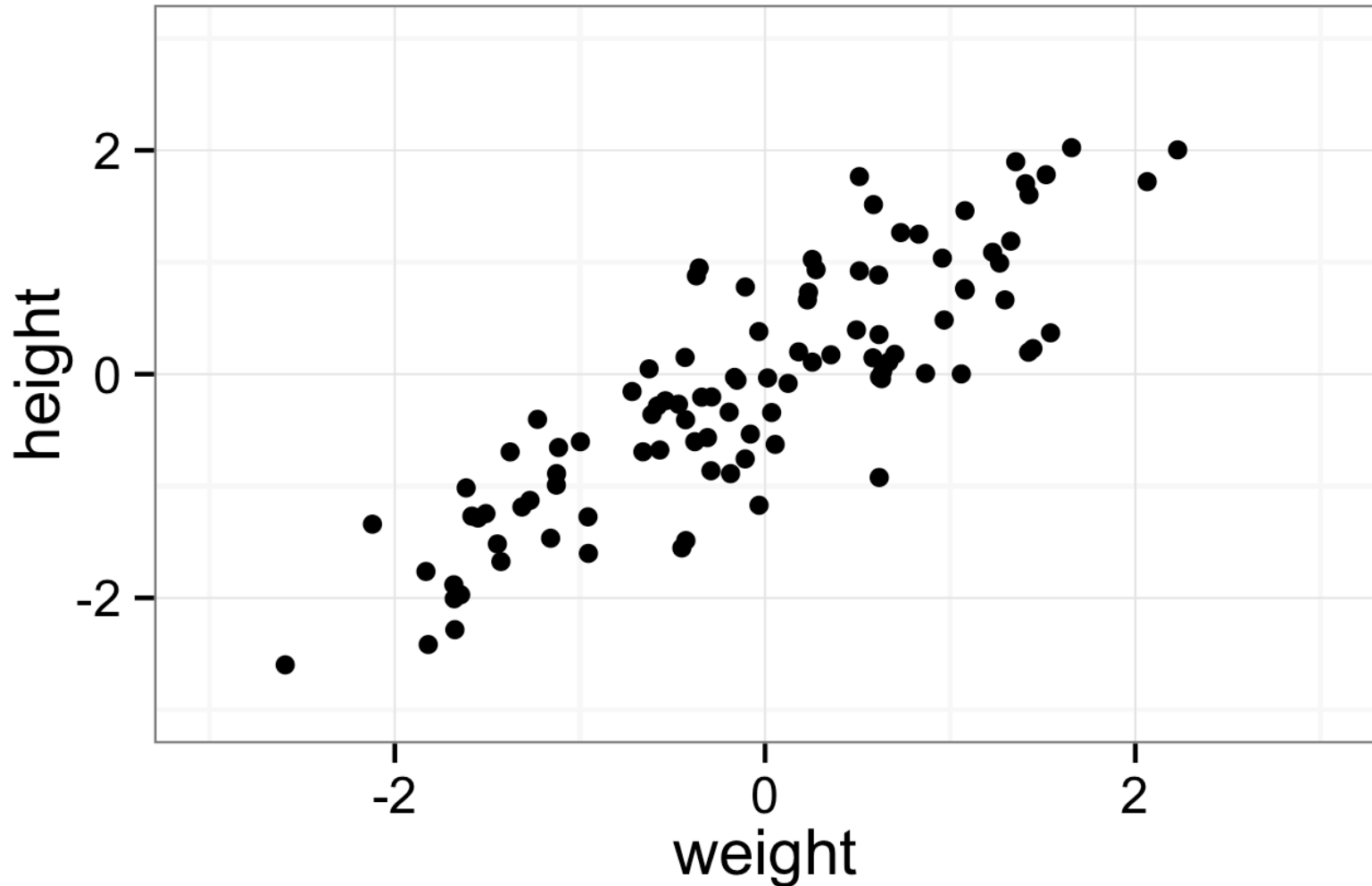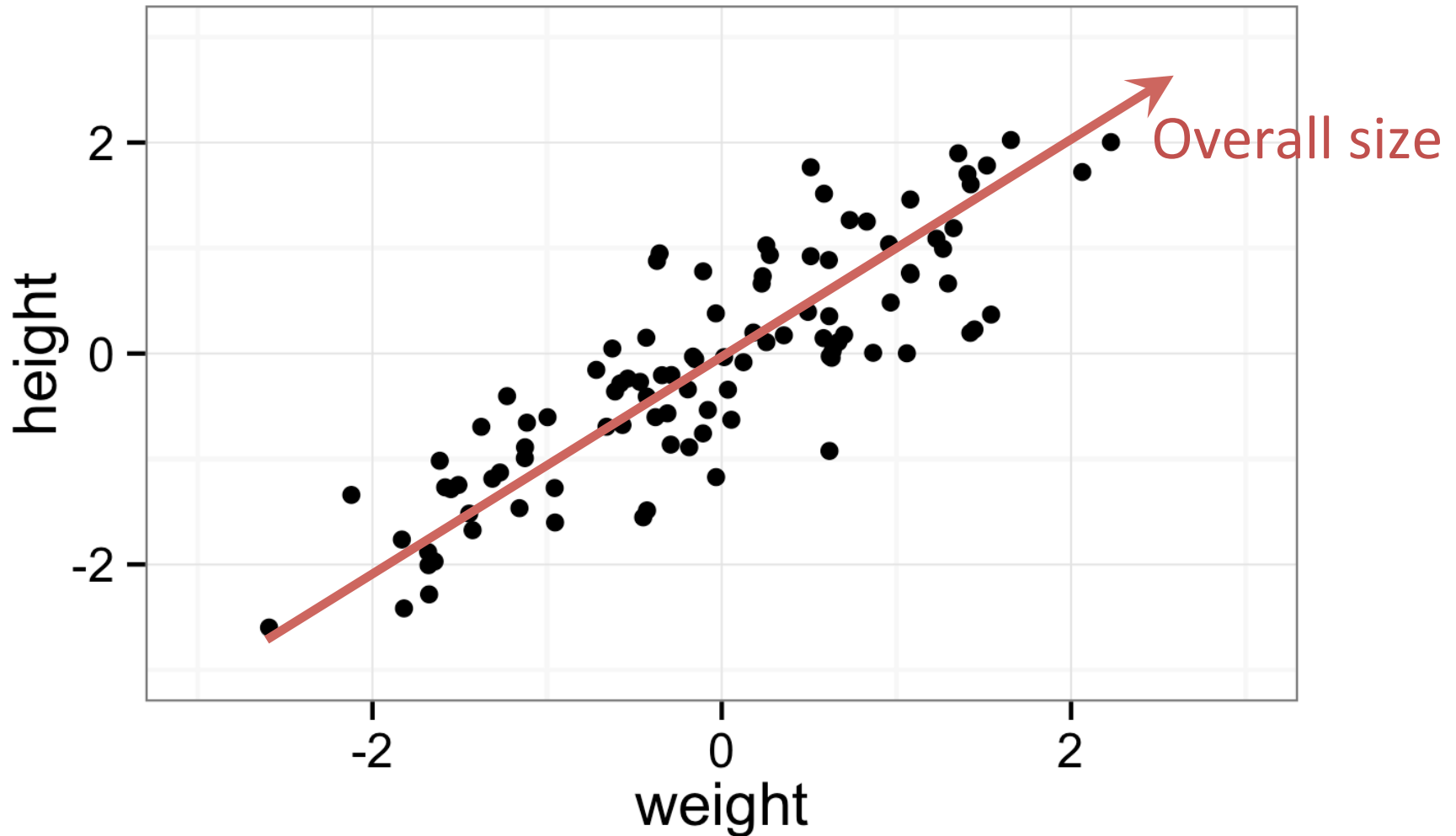# Principal Components Analysis (PCA)

Exploratory data analysis of high-dimensional data sets.
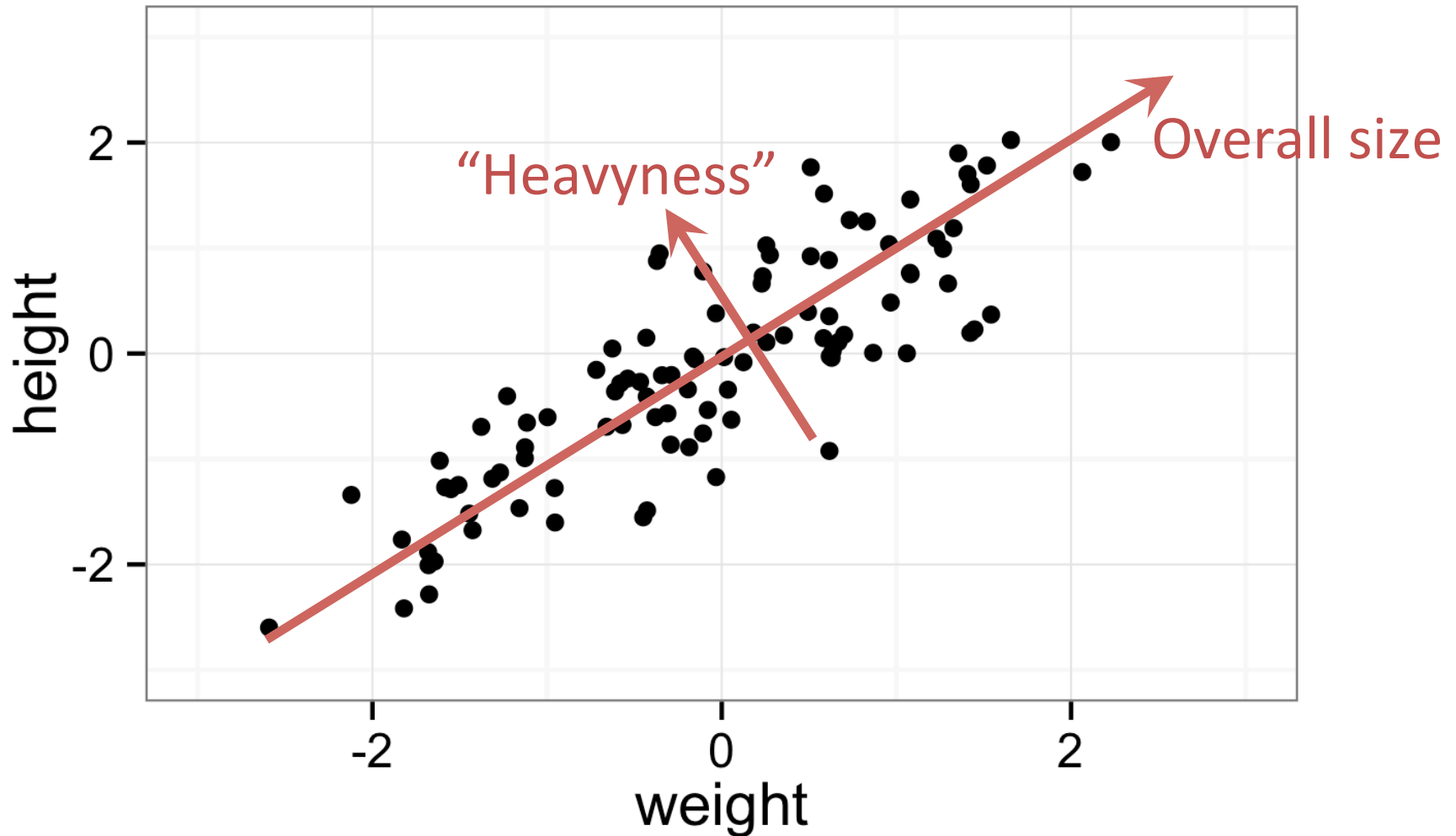
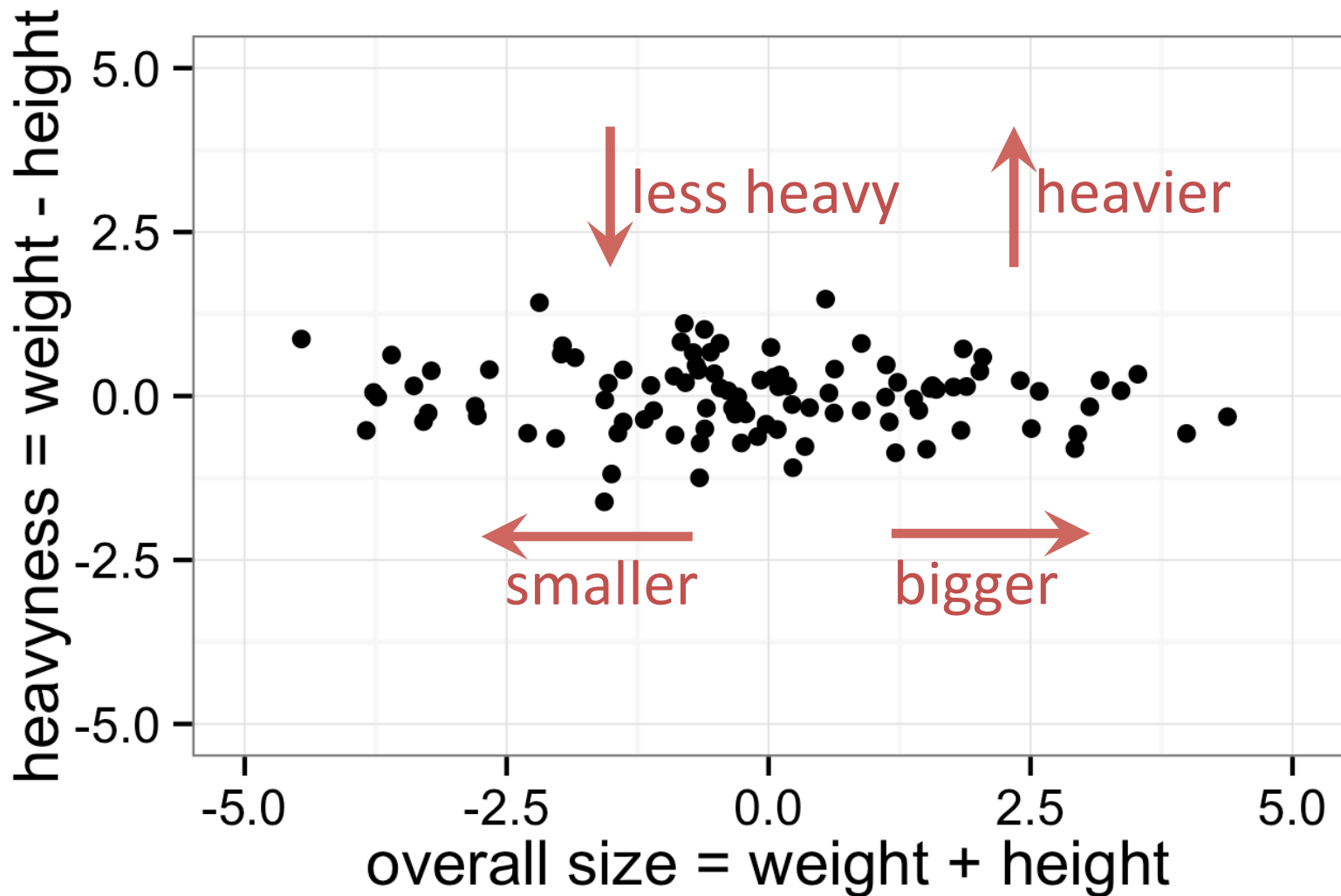# Example: Consider a data set of heights and weights of people

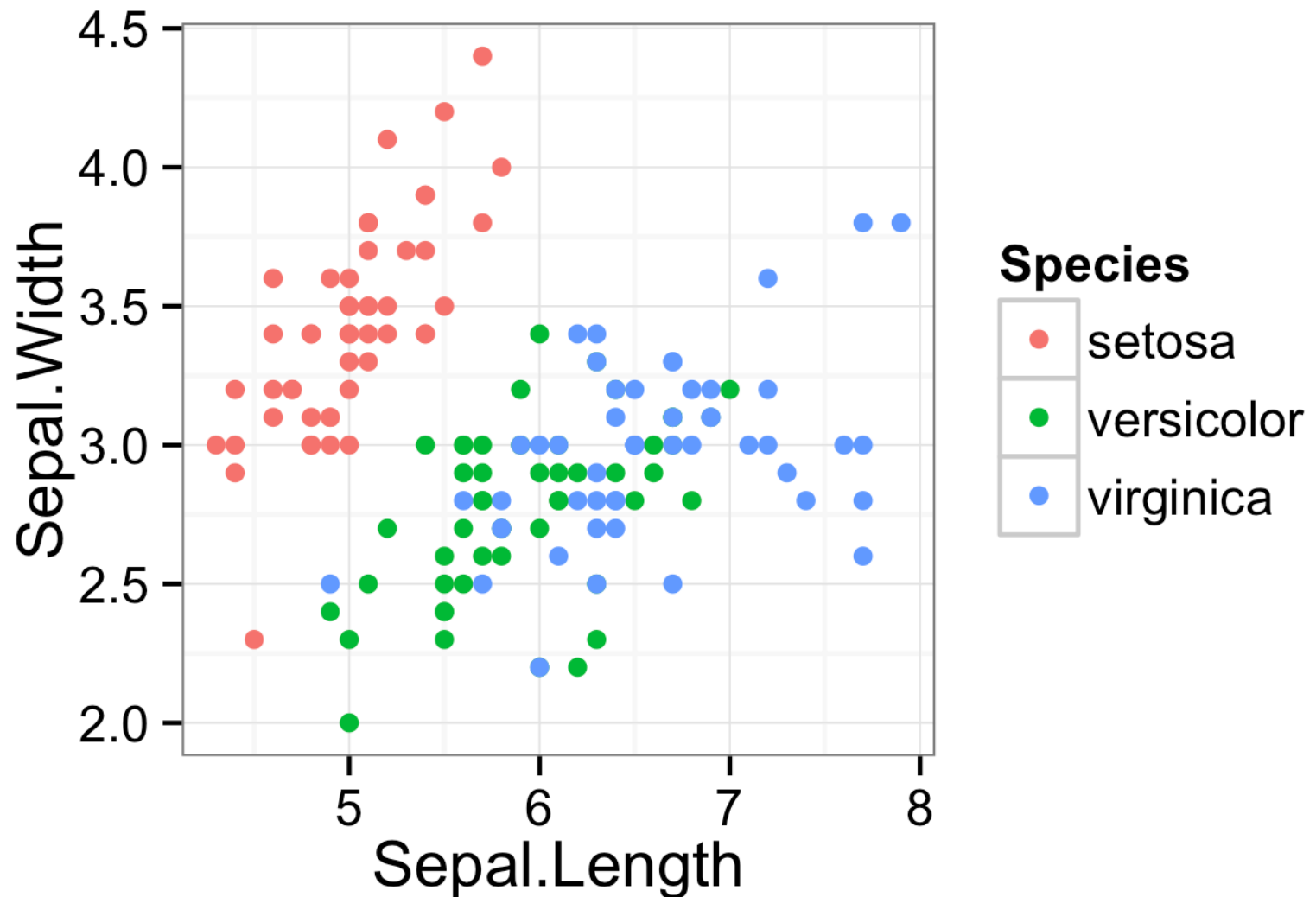# Example: Consider a data set of heights and weights of people

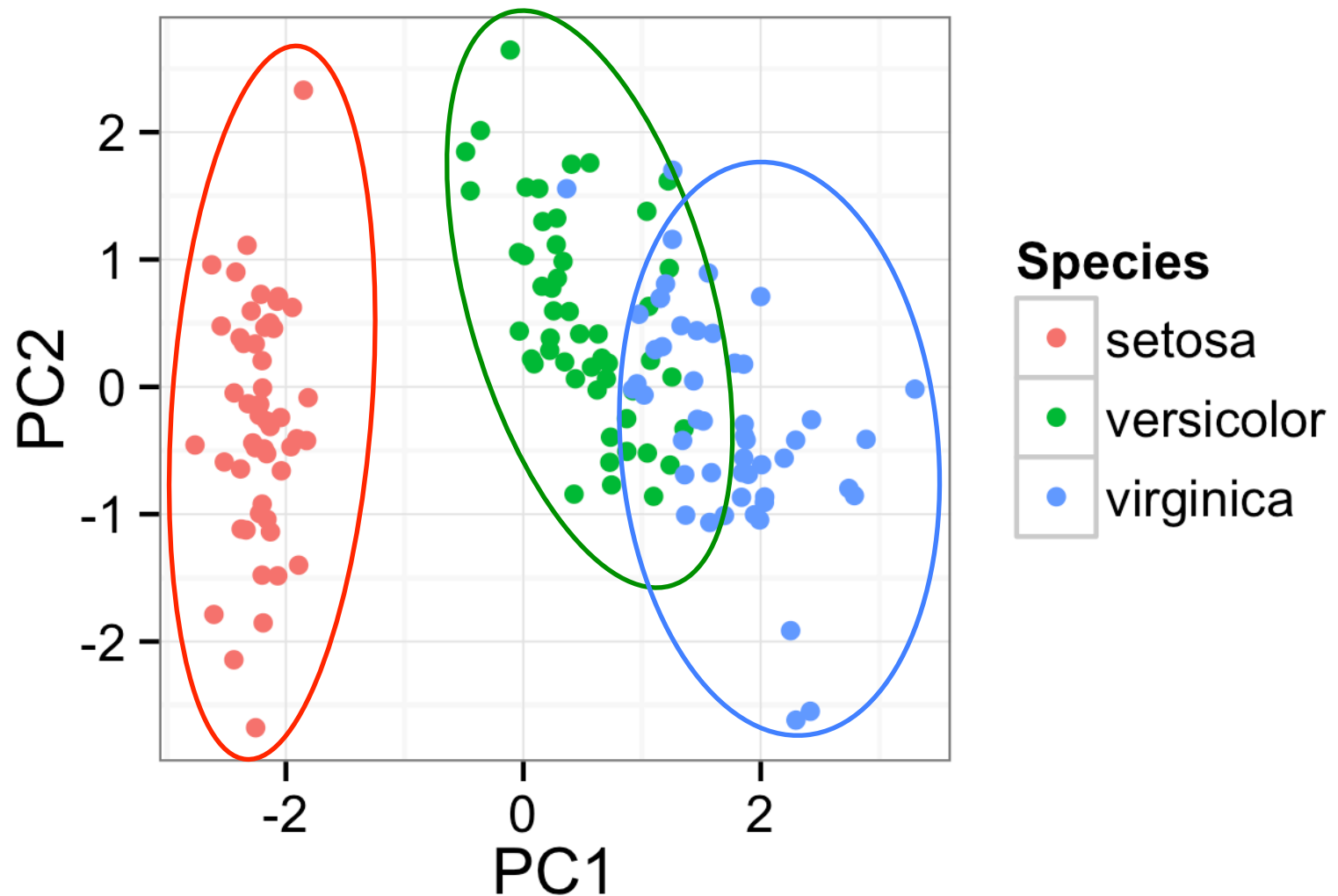# Example: Consider a data set of heights and weights of people

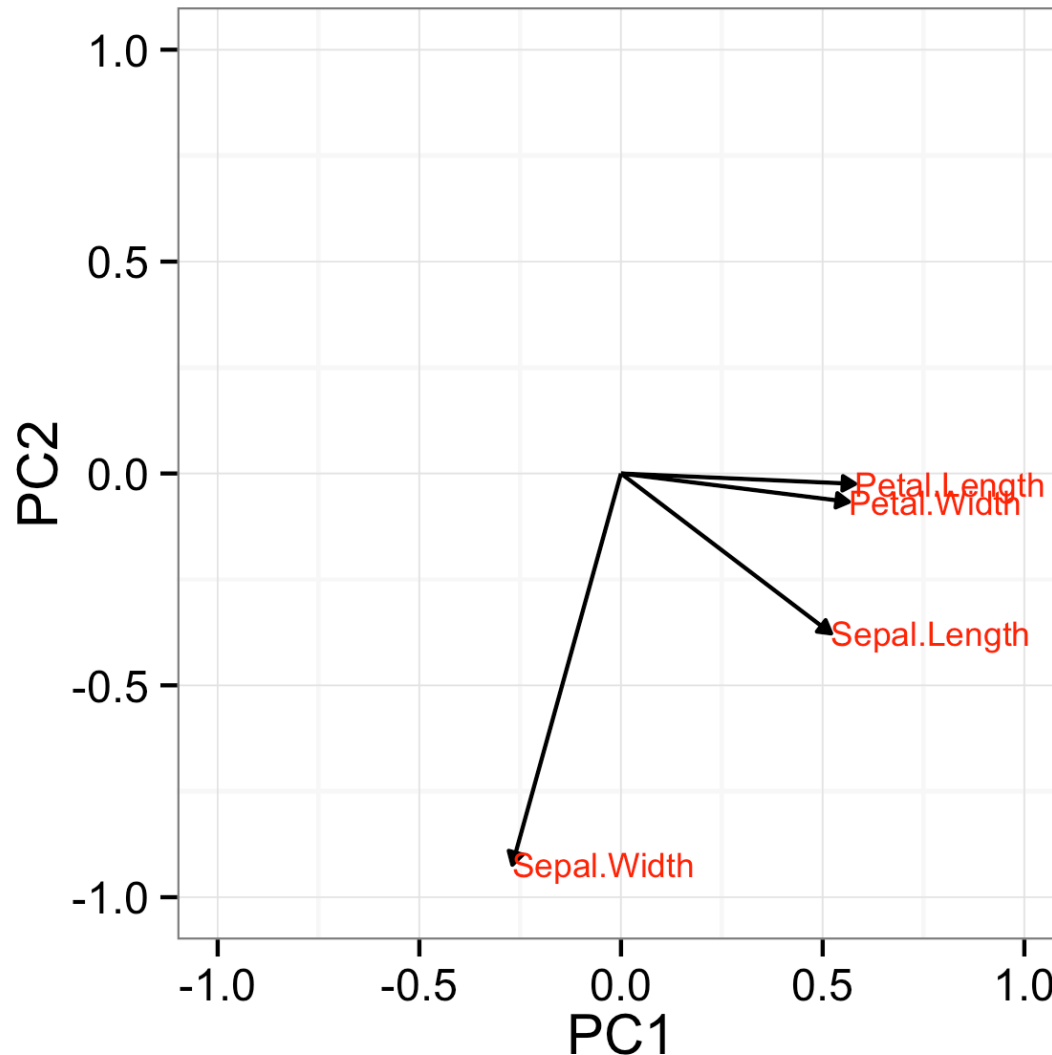PCA on this data set reframes data in terms of overall size and fatness

Recall the iris data set: versicolor and virginica seem to overlap

But they mostly separate when plotted as principal components (PCs)

The rotation matrix tells us which variables contribute to which PCs

The first component captures the majority of the variation in the data