One against the other is a classification strategy. Different from one against rest, one against always only consider two of the classes. For example, if the original training set consists of class0, class1 and class2, the new sub training sets we use for classification should be a data set that only includes data for two of the classes, like class0 and class1. And in this case, we will get three classifiers at the end, we use vote strategy to decide the class of present data.

$g_{0,1}(x) = \{g \mid g$ is a classifier used for classifying class0 from class1$\}$

$g_{0,2}(x) = \{g \mid g$ is a classifier used for classifying class0 from class2$\}$

$g_{2,1}(x) = \{g \mid g$ is a classifier used for classifying class2 from class1$\}$

If both $g_{0,1}(x)$ and $g_{0,2}(x)$ vote for class0, then we can classify this sample to class0.