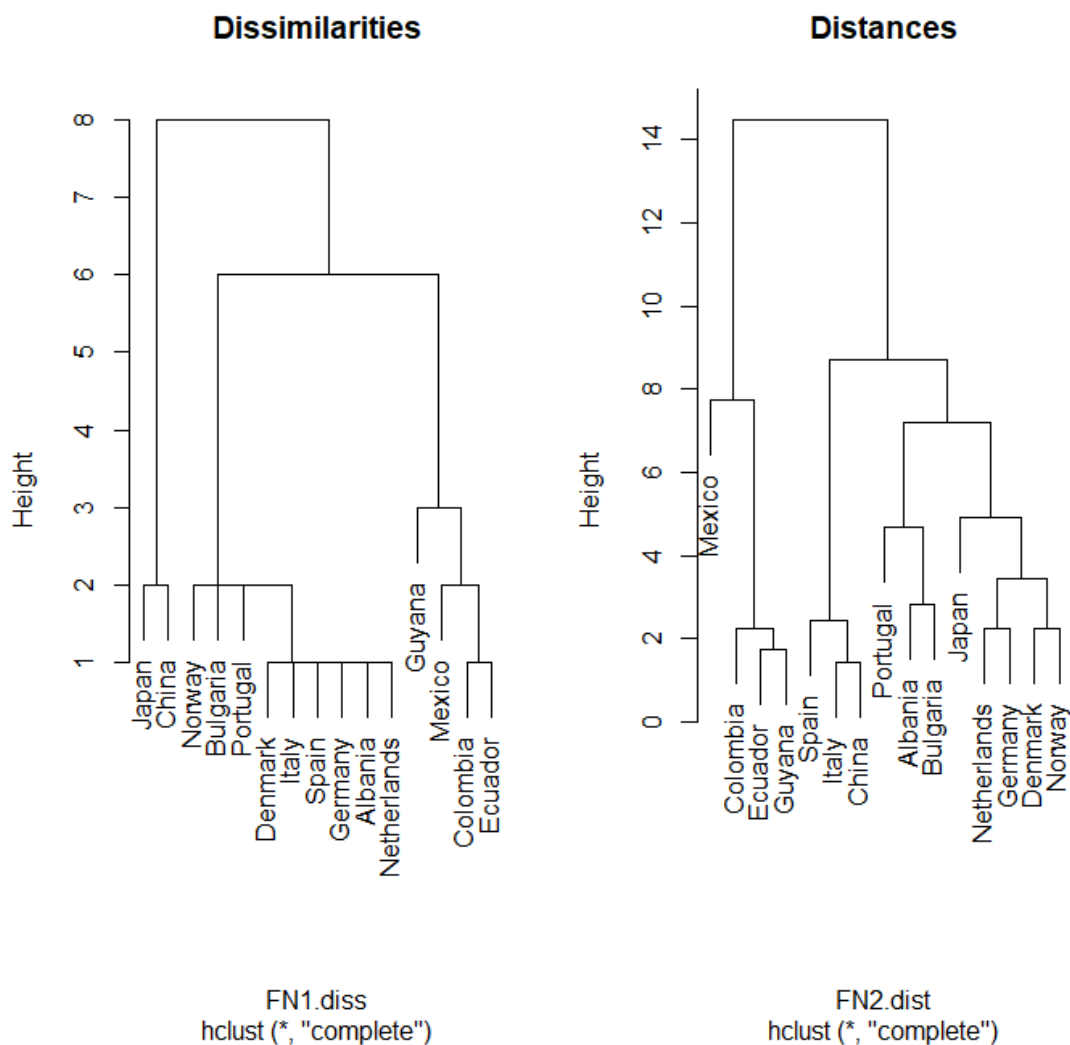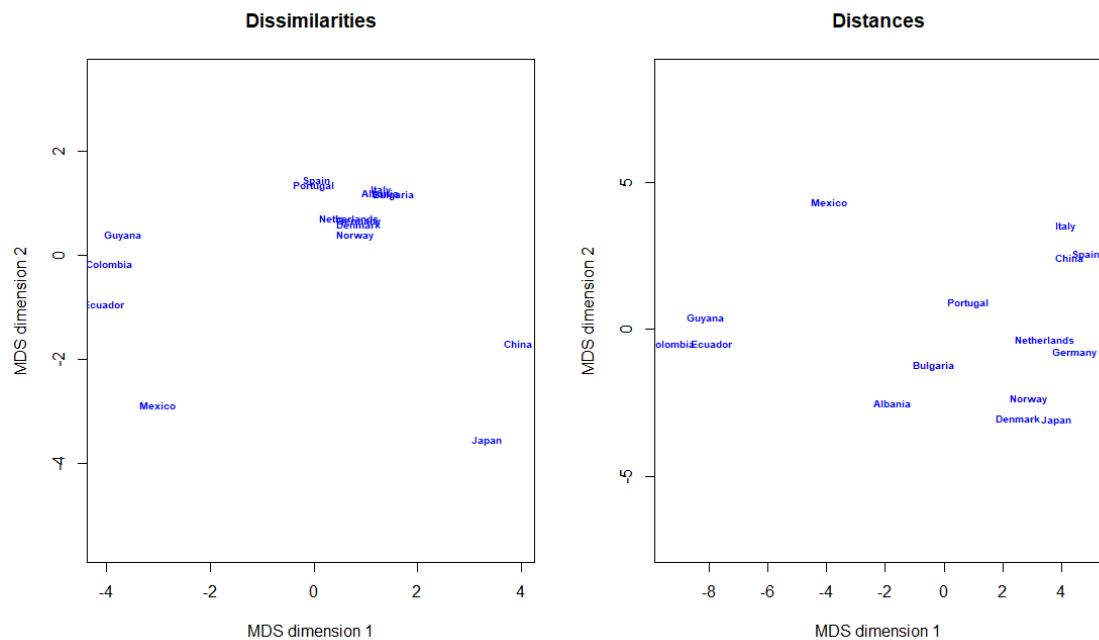# Homework 3

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This time, I rated fifteen countries by my own perception. I actually don't know much about the countries, so all the result are based on my subjective and prejudicial intuition. Here is the first result.

Dissimilarities

FN1.diss
hclust (*, "complete")
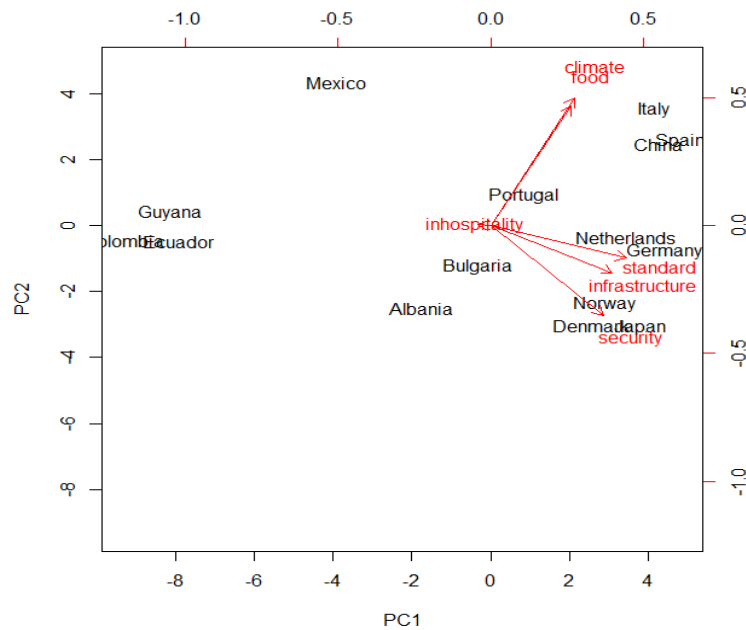
Distances

FN2.dist
hclust (*, "complete")

Note that for the graph of dissimilarities, I used the actual distances between each country, while for the graph of distances, I used objective ratings of fifteen countries. The difference is obvious. The first one is completely grouped by the geometrical position of each country. However, the second one has nothing to do with geometry. For instance, in the second graph, we can see Spain, Italy and China are in the same group, which are not actually close

enough to make a geometric group. This is probably because I gave the three countries high mark for having tasty food. Let me move on to the next result.

This is the result of multidimensional scaling. Countries are well grouped in the left graph, but not in the right graph. I have no idea what causes this difference, but we can still see a kind of group in the right graph. For example, Netherlands, Germany, Norway, Denmark, and Japan are well developed European countries(except Japan), Portugal, Bulgaria, and Albania are the less developed countries in EU, Guyana and Ecuador are the "Hot" countries. Look at the final result.

Here you can see the interpretation of grouping, and the was actually same as mine in the previous result. Standard of living, infrastructure, and security have the same direction. This is because they are the main character of developed country. Interestingly, climate and food have the exact same direction. They are not supposed to relate, but unconsciously in my head, those are closely related. Inhospitality makes any difference. This is because I gave almost same score to all the countries. How can I know the hospitality of the country I have never been to? As a result, I only have two indexes to group countries: food(or climate) and development. I am indeed satisfied with the result, because it tells me how ignorant and stereotyped I am regarding characteristics of countries.