For Face Recognition:
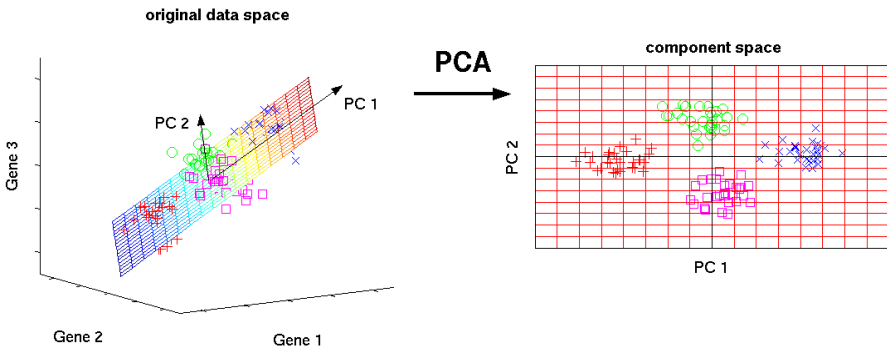
- It is a **statistical approach** used for **reducing the number of variables** in face recognition.

original data space

PCA
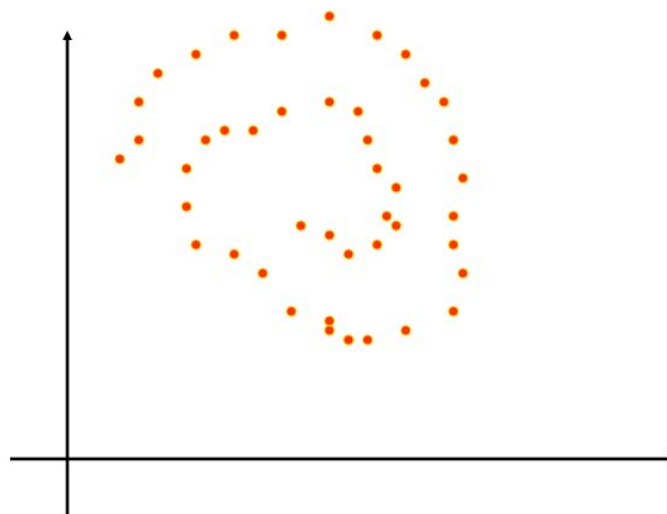
component space

For Exploratory Data Analysis:

- It is used for making 2,3-dimensional plots of the data for **visual examination** and **interpretation**.

Limitations
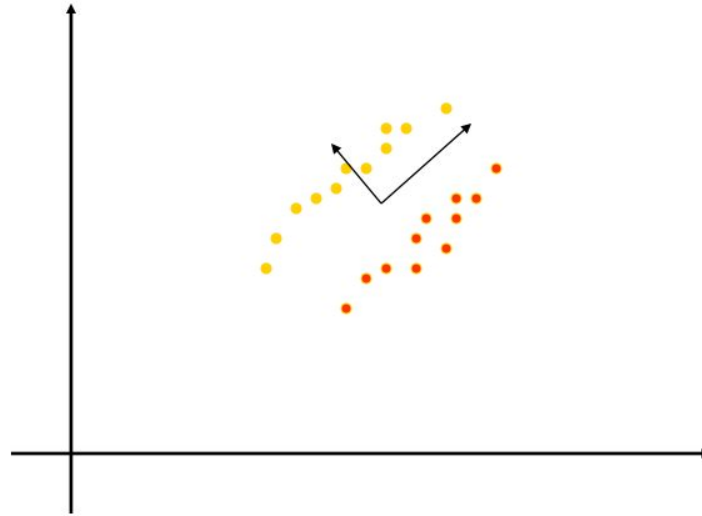
- It doesn't know **labels**.
- It is an **unsupervised learning**.
- Outputs are **not considered**.

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Non - linear Structure

- It cannot capture **NON-LINEAR** structure.