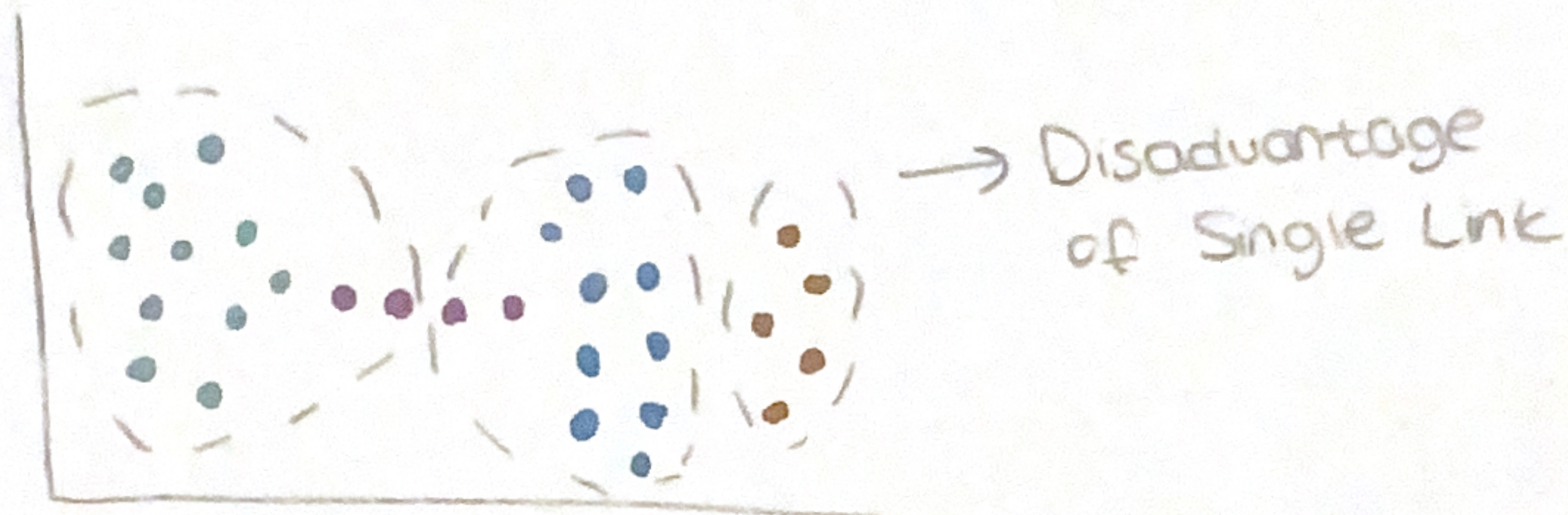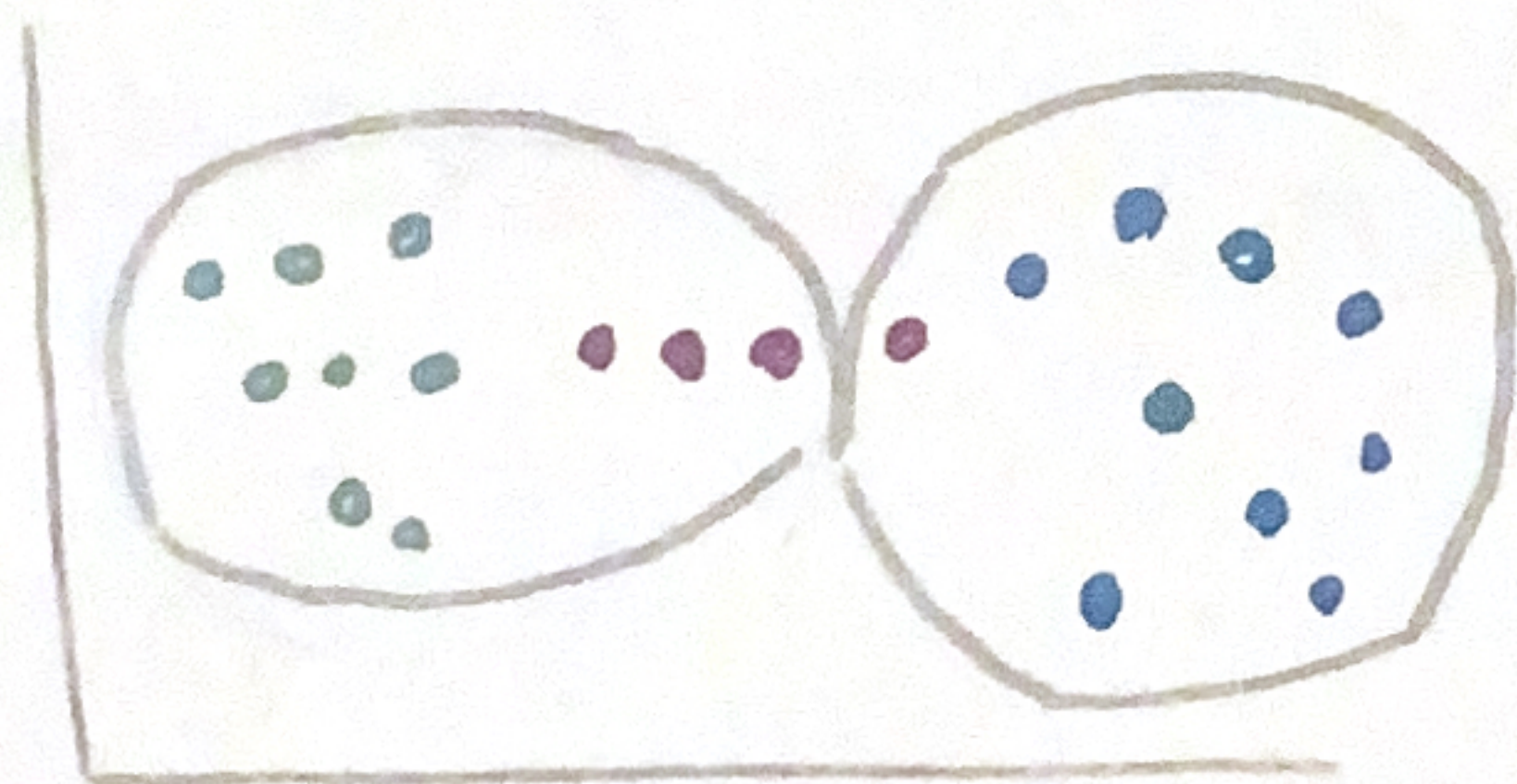# Measuring Distance Between Two Clusters

Single Link: Distance between two clusters is the distance between two closest data points in the two clusters. It can find arbitrary shaped clusters, but it may cause a chain effect with noise.

→ Disadvantage of Single Link

Complete Link: Distance between two clusters is the distance between two furthest data points in two clusters

Average Link: Provides a trade-off between two of the above.

→ Complete Link is sensitive to outliers
→ Single link forms chains do not correspond to clusters

❋ Distance between two clusters is the average distance of all pairwise distance between data points in two clusters.

Single Link   Complete Link   Average Link   ↓ average of all distances