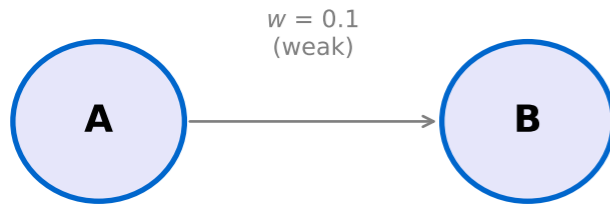


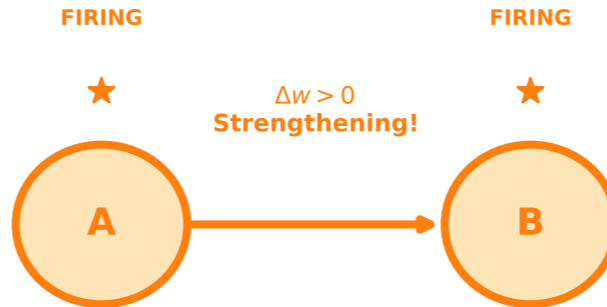
Hebbian Learning: "Neurons That Fire Together, Wire Together" (Donald Hebb, 1949)

Before Learning



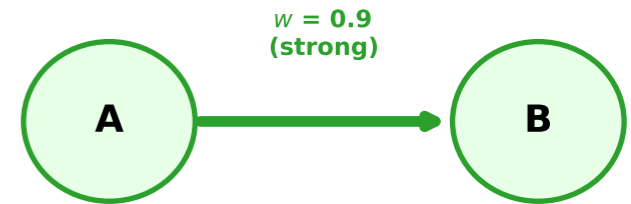
Neurons not
firing together

During Learning



*"Neurons that fire
together, wire together"*

After Learning



Connection
permanently stronger

Hebb Rule: $\Delta w_{ij} = \eta \cdot x_i \cdot x_j$ (weight increases when both neurons are active)