## **Perceptron Model**



1. = 1 if ni=1 wixi >= b
2. = 0 otherwise
3. Comparing with MP Neuron

|  |  |
| --- | --- |
| MP Neuron | Perceptron |
| = 1 if ni=1xi >= b  = 0 otherwise | = 1 if ni=1wixi >= b  = 0 otherwise |
| Boolean inputs ☹️ | Real inputs 😃 |
| Linear ☹️ | Linear ☹️ |
| Inputs are not weighted ☹️ | Weights for each input 😃 |
| Adjustable threshold 😃 | Adjustable threshold 😃 |

What do weights allow us to do?

1. Each parameter has a different effect on the output, some more, some less, some directly proportional and some, inversely proportional.
2. Weights(/w) allow us to do this effectively.
3. x = [0, 0.19, 0.64, 1, 1, 0] features
4. w = [0.3, 0.4, -0.3, 0.1, 0.5] weights
5. x.w = ni=1 wixi
6. = 1 (if x.w >= b)
7. = 0 otherwise