

## Standard TD

$$\delta_t = r_t + V_{TD}(s_{t+1}) - V_{TD}(s_t)$$
$$V_{TD}(s) \xleftarrow{\text{Update target}} V_{TD}(s) + \alpha_{TD} \delta_t \quad \text{Prediction}$$

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## Dual Process

$$V_{NET}(s_{t+1}) = k V_{TD}(s_t) + (1 - k) V_{MB}(s_{t+1})$$
$$\delta_t = r_{t+1} + V_{NET}(s_{t+1}) - V_{TD}(s_t)$$
$$V_{TD}(s) \xleftarrow{\text{Update target}} V_{TD}(s) + \alpha_{TD} \delta_t \quad \text{Prediction}$$