

Eligibility Traces



- Credit assignment problem: did bell or light cause shock?
- **Frequency heuristic**: assign credit to most frequent states
- **Recency heuristic**: assign credit to most recent states
- *Eligibility traces* combine both heuristics

$$E_0(s) = 0$$

$$E_t(s) = \gamma\lambda E_{t-1}(s) + \mathbf{1}(S_t = s)$$

