Consensus (N = 2) MDP Q-value, property steps\_max, shallow 3-layered network  $10^{4}$ 10<sup>3</sup> 10<sup>2</sup> Average reward  $10^{1}$ One-hot encoding 10<sup>0</sup> Ordinal encoding One-hot encoding (Q-table) Ordinal encoding (Q-table) One-hot encoding (Double Q-learning) Ordinal encoding (Double Q-learning)  $10^{-1}$ One-hot encoding (Double Q-learning, Q-table) Ordinal encoding (Double Q-learning, Q-table) Modest solution = 75100 200 300 400 500 0 Number of episodes