



Comparing log-likelihoods of models given human data in Experiment 1. Each marker is a subject-environment pair, with each color showing a single environment: Env1-Env6 (blue-yellow). Error bars show standard error along each axis. The results show that the MAP-POMCP and D-POMCP models, that implement map induction, explain human behavior better than the Uniform-POMCP model, that makes no predictions about map structure. One of the environments (Env4: reddish brown) is an outlier because the subjects explore this environment more exhaustively relative to the other environments. This might be because Env4 is one of the bigger maps, which also contains two rewards in each unit. Most other environments are smaller and contain just one reward per unit. Thus, subjects may be more likely to explore Env4 more, if they suspect that the reward distribution has changed.