先端科学技術研究科　修士論文要旨

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要旨			

In order to study the mechanism of exploration and exploitation in the human decision-making process, we divided the human decision-making model into two parts: the value function is based on reward and selection strategies that balance the exploitation and exploration process based on the value function. We used several classical models with different features in value function and selection strategies part. We fitted these models to a restless two-armed bandit task to test which models were more suitable for human decision-making processes. We found that the Decay method as the value function and Upper Confidence Bound (UCB) as the selection strategy fit best in terms of AIC and BIC. Furthermore, in this model, the exploration-exploitation tradeoff parameter in the selection strategy showed two human decision-making patterns of the exploration and exploitation.