

We consider a bandit problem faced by a team which consists of two heterogeneous individuals. The organization is hierarchical in that one (the principal) retains the right to terminate the project while the other (the agent) focuses exclusively on implementing it. As a key departure, we assume that the principal may be privately informed about the project quality. In clear contrast to most models in the existing literature, the belief in our model is generally non-monotonic: while each failure lowers the agent's confidence in the project, the uninformed type drops out over time, which restores the agent's confidence. We derive explicit solutions for the agent's effort and the principal's exit decisions and obtain a complete characterization of the equilibrium. We also discuss the role of effort observability in our context and show that the agent's expected payoff can either increase or decrease with better monitoring.