

A Note on Optimal Experimentation under Risk Aversion ^{*}

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June 2018

Abstract

This paper solves the two-armed bandit problem when decision makers are risk averse. It shows, counterintuitively, that a more risk-averse decision maker might be *more* willing to take risky actions. The reason relates to the fact that pulling the risky arm in bandit models produces information on the environment – thereby reducing the risk that a decision maker will face in the future. This finding gives reason for caution when inferring risk preferences from observed actions: in a bandit setup, observing a greater appetite for risky actions can actually be indicative of more risk aversion, not less. Studies which do not take this into account may produce biased estimates.

JEL-codes: D81, D83.

Key words: Experimentation, Learning, Risk aversion.

^{*}Many thanks to Godfrey Keller who was of crucial help in setting up the framework employed in this paper. We furthermore thank two anonymous referees, the Editor (Laura Veldkamp), an Associate Editor, Yeon-Koo Che, Mark Dean, Andrew Ellis, Sebastian Foster, Filip Matějka, Pietro Ortoleva, Kevin Roberts, Jakub Steiner, Felix Vardy, Jan Zápál, and participants of the 2016 Applied Bayesian Statistics Summer School (Como), the 2017 Summer School of the Econometric Society (Seoul), and SEAM 2017 for useful comments and discussions. Vladimír Novák was supported by Charles University in Prague, project GA UK No. 197216 and received funding from the European Research Council under the European Union’s Horizon 2020 research and innovation programme (grant agreement No. 678081). The views expressed in this paper are those of the authors and should not be attributed to the International Monetary Fund, its Executive Board, or its management.

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