Guo Mia Bai

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EDUCATION

University College London (UCL) **London, UK**
PhD in Economics Expected 2023
Supervisors: Prof Martin Cripps, Dr Deniz Kattwinkel, Prof Konrad Mierendorff

University College London (UCL) **London, UK**
MSc in Economics (Distinction) November 2016

University of Liverpool **Liverpool, UK**
BSc in Economics (First Class) July 2015

RESEARCH

Interests

Microeconomic theory, information acquisition and learning.

Working papers

Private Information Acquisition and Preemption: a Strategic Wald Problem

JMP, submitted to Journal of Economic Theory

This paper studies a dynamic information acquisition model with payoff externalities. Two players can acquire costly information about an unknown state before taking a safe or risky action. Both information and the action taken are private. The first player to take the risky action has an advantage but whether the risky action is profitable depends on the state. The players face the tradeoff between being first and being right. In equilibrium, for different priors, there exist three kinds of randomization: when the players are pessimistic, they enter the competition randomly; when the players are less pessimistic, they acquire information and then randomly stop; when the players are relatively optimistic, they randomly take an action without acquiring information.

Linear Search or Binary Search: Time Risk Preferences and Pool Sizes

Pooled testing is a method of combining specimens together and conducting one single test. Linear Search refers to the test with a pool size of one. It allows the agent to find the positive specimen with a minimum of one test, but it is risky in terms of when the positive specimen is found. Binary Search refers to the test with a pool size of half of the specimens. It can quickly eliminate the negative specimens but does not allow the agent to learn immediately as follow-up tests are needed. This paper studies how time risk attitude and patience level affect an agent's optimal choice of a sequence of the pooled tests within a dynamic single-agent's model. To disentangle the effects of time risk attitude and the patient level, I consider a generalized expected discounted utility function. I show that when the agent's prior belief is uniform, only Linear Search or Binary Search can be optimal. All other sequences of the tests are suboptimal. The optimality of the sequence of linear searches or binary searches depends on the tradeoff between the time risk attitude and the patience level.

CONFERENCE

Women in Economic Theory Conference (2022)

TEACHING EXPERIENCES

Teaching Assistant, UCL	**Gower Street, London**
Economics of Information	2019, 2020-2022
Game Theory	2017, 2020, 2021
Economics	2021
Microeconomics	2017, 2018
Behavioural Economics	2017
Applied Economics	2017

RESEARCH POSITION

Research Assistant, UCL, Dr Nikita Roketskiy 2019-2020

REFERENCES

Prof Martin Cripps	Dr Deniz Kattwinkel	Prof Vasiliki Skreta
University College London	University College London	University of Texas, at Austin, UCL and CEPR
Department of Economics	Department of Economics	Department of Economics
m.cripps@ucl.ac.uk	d.kattwinkel@ucl.ac.uk	vskreta@gmail.com

MISCELLANEOUS

Awards: Brian Hillier Memorial Prize (University of Liverpool)

Technical Skills: Experienced with MATLAB, STATA and LaTeX.

Languages: English (Fluent), Mandarin Chinese (Native).