Zhewei Song

CONTACT INFORMATION

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EDUCATION

Ph.D. in Information Science, University of Michigan — 2023 (expected)

B.A. in Economics, Tsinghua University — 2016

B.A. in English Literature and Linguistics, Tsinghua University — 2016

RESEARCH INTERESTS

Experimental and Behavioral Economics, Information Economics, Market Design, Industrial Organization, Game Theory

WORKING PAPERS

- **Zhewei Song. (2022). "Sellers' Defensive Behavior in Credence Goods Markets with Uncertain Outcomes – Does Reputation and/or a Behavioral Nudge Improve Efficiency?"**

  Abstract: In credence goods markets such as healthcare service markets, when a buyer encounters a problem that needs treatment, only sellers have the expertise to determine which type of treatment is sufficient to address the buyer's problem. Although sufficient treatment maximizes buyers' expected utility, sometimes it cannot guarantee a 100% success rate. When a treatment failure happens, buyers cannot determine whether it is caused by insufficient treatment or bad luck after sufficient treatment, and they may express their dissatisfaction with sellers in costly ways by engaging in "crying behavior" that result in compensation. To avoid the costly aftermath from such "crying behavior", sellers will "defend" themselves by overtreating to minimize the probability of treatment failure. However, the high cost of overtreatment incurred by both sellers and buyers will result in a Pareto-inefficient outcome, as compared to the situation where buyers do not cry and sellers choose sufficient treatment. This study investigates whether this market inefficiency resulted from sellers' overtreatment and buyers' crying behavior can be alleviated through a reputation system and/or a behavioral nudge. I show that when there is a reputation system which makes sellers' treatment history and buyers' reactions publicly visible, there exists a perfect public equilibrium in which the seller and buyer frequently play the Pareto-efficient strategy profile. I also predict that a behavioral nudge, which makes salient the information that sufficient treatment and not crying lead to a Pareto-efficient outcome, encourage them to play the Pareto-efficient strategy profile. My laboratory experimental results show that most sellers overtreat while most buyers cry when neither the reputation system nor the nudge is present. Buyers are significantly less likely to cry when the reputation system is introduced. When both the reputation system and the nudge are present, sellers are significantly more likely to choose sufficient treatment and significantly less likely to overtreat in the late stage of the game, and market efficiency is weakly improved.

- **Zhewei Song & Ulrike Vollstaedt. (2022). "How to Make Better and/or Cheaper Products Accessible to Buyers through an Optimal Product Testing Mechanism"**

  Abstract: In markets where reliable information about product qualities is not available to buyers, a product quality testing organization has expertise in finding out and revealing true qualities of products to buyers. However, the quality testing organization often has limited testing capacity, and many existing

testing mechanisms are unable to provide quality information of products that are most preferred by buyers. In this study, we design a product testing mechanism which not only makes full use of the limited testing capacity to only provide quality information of the cheapest and best products on the market, but also incentivizes enough sellers to produce products with high qualities and at a price equal to the marginal cost. We show that with our proposed mechanism, the unique weak perfect Bayesian equilibria maximize consumer surplus, and thus our proposed mechanism (weakly) dominates any alternative quality testing mechanism. We also consider a generic benchmark mechanism in which the testing organization randomly selects products to test and reveal their qualities. Our experimental results show that the consumer surplus is significantly higher when the testing organization uses our proposed mechanism than when it uses the benchmark mechanism which randomly tests products.

- **Zhewei Song & Erin Krupka. (2022). "When Group- and Self-Esteem Lead To 'We-Thinking': When Does Social Identity Motivate Group Behavior?"** ***Under review at Experimental Economics***

  Abstract: In this paper, we take as given that social identity motivates individuals to make group contributions and focus on examining the determinants of when it motivates these contributions. We test whether "we-thinking", group-regarding behavior in the presence of an individual-group tradeoff, is predicted by a specific relationship between group- and self-esteem. We define group- and self-esteem as having positive feelings about the relative performance of one's group and self. By extending Akerlof's model (2016), we predict that engaging in "we-thinking" is positively correlated with group-esteem and negatively with self-esteem. We proxy for group-esteem and self-esteem using rank-based measures and self-reported measures. Using a laboratory experiment, we manipulate subjects' group-esteem and self-esteem through intergroup and inter-personal competitions. We measure their engagement in "we-thinking" through a modified dictator game in which they allocate tokens to their group at their expense. Using the self-reported measures our predictions are supported: We find that subjects' self-reported group-esteem (self-reported self-esteem) is significantly positively (negatively) correlated with engagement in "we-thinking". Our results using the rank-based measure partially support the model's predictions: Individual rank is significantly negatively correlated with engagement in "we-thinking" when group rank is high. The findings have implications for when individuals are likely to adopt group-regarding behavior and for how to measure the psychological concept of group/self-esteem.

WORK IN PROGRESS

- Can Policy Instruments That Regulate Identity Expression Be Used To Achieve Social Integration?
  (With Erin Krupka, Roy Chen and Daphne Chang)
- Entitlement Effect on Social Groups
  (With Erin Krupka, Ro'i Zultan and Sebastian Goerg)

GRANTS & AWARDS

Rackham Travel Grant 2019, 2021

Rackham Research Grant for Ph.D. Students ($1,500, $3,000), University of Michigan 2017, 2019

CONFERENCE PRESENTATIONS

"Sellers' Defensive Actions in Credence Goods Markets with Uncertain Outcomes – Does Reputation and/or Education Improve Efficiency and Why (not)?"

- Chinese Economist Society Annual Meeting (Virtual), Guizhou, China June 2022
- Economic Science Association Asia-Pacific Meeting (Virtual), Japan Mar. 2022
- Southern Economic Association 91st Annual Meeting, Houston, USA Nov. 2021

- Economic Science Association North American Meeting, Tucson, USA Oct. 2021

When Group- and Self-Esteem Lead To "We-Thinking": When Does Social Identity Motivate Group Behavior?

- Economic Science Association World Meeting, Boston/Cambridge, USA June 2022
- Southern Economic Association 91st Annual Meeting, Houston, USA Nov. 2021
- International Conference RExCon21 on Social Preferences and Social Norms (Virtual), Russia Jul. 2021
- Economic Science Association North American Meeting, Los Angeles, USA Oct. 2019

TEACHING EXPERIENCE

Graduate Student Instructor, University of Michigan

- Experimental Design and Analysis *(for graduate students)* Summer 2021, Summer 2022
- Data Science for Social Good *(for graduate students)* Summer 2021, Summer 2022
- Choice Architecture (Decision Theory & Behavioral Economics) *(for graduate students)* Winter 2018, Winter 2019
- Programs, Information and People (Introduction to Python Programming) *(for undergraduate students)* Winter 2022
- Introduction to User Modeling (Information & Behavioral Economics) *(for undergraduate students)* Fall 2018, Fall 2021, Fall 2022
- Introduction to Information Studies *(for undergraduate students)* Fall 2017, Fall 2020, Winter 2021

SERVICE WORK

Laboratory Manager, Behavioral Laboratory of the School of Information 2018-present
University of Michigan

Manager, Behavioral and Experimental Economics Lab Group 2017-2018
University of Michigan

SKILLS

Programming (Python, C++, Latex, Stata, R, zTree, oTree, Visual Basic)
Languages: Mandarin (native); English (proficient)

REFERENCES

Erin Krupka (Dissertation Chair)
Associate Professor and Doctoral Program Director
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University of Michigan
ekrupka@umich.edu

Yan Chen
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