

# Matthew J. Walker

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## Education

Ph.D. Candidate in Economics, Durham University (ESRC studentship), expected August 2021.

Thesis Title: "Trust and Trustworthiness in Imbalanced Markets".

Visiting Scholar, The University of Texas at Dallas, Spring 2019.

Postgraduate Certificate Research Methods, *Distinction*, 2018.

MSc. Experimental Economics, *Distinction*, Durham University, 2017.

B.A.(Hons) Economics with Hispanic Studies, *First-Class Honours*, University of Nottingham, 2014.

Erasmus Study Abroad in Economics, University of Granada, 2012–2013.

## References

Prof. Jason Shachat\*  
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## Research Interests

Behavioural and Experimental Economics, Auctions, Bargaining, Social Norms.

## Teaching Fields

Experimental Economics, Microeconomic Theory, Applied Econometrics.

## Research Papers

1. Shachat, J., Walker, M. J. & Wei, L. (2020). The Impact of an Epidemic and Associated Interventions on Pro-sociality, Trust, and Preferences: Experimental Evidence. [Selected for publication in AEA Papers and Proceedings](#).

**Abstract:** We examine how the emergence of a novel coronavirus in Wuhan and associated events influenced pro-social behaviors, trust and risk-related preferences. Our study administers incentivized economic tasks to a repeated cross-section of Wuhan University students. We find that the initial outbreak causes a significant increase in altruism, cooperation, risk tolerance and ambiguity aversion. Trust is initially below its pre-crisis level, but upticks sharply over time. The news of a whistle-blower's death undermines trust and temporarily increases risk aversion. Wuhan-based subjects display lower trust and cooperation. Our findings suggest the importance of accounting for acute perturbations in behavior during a crisis.

2. Hyndman, K. B. and Walker, M. J. (2020) Fairness and Risk in Ultimatum Bargaining. Available at SSRN: <https://ssrn.com/abstract=3651557>.

**Abstract:** We conduct an experiment in which subjects play an ultimatum game but, rather than bargaining over money, they bargain over lottery tickets for a prize. Compared to the standard ultimatum game, proposers offer a significantly lower percentage of lottery tickets, which is inconsistent with either ex ante or ex post fairness. In contrast, responders have a significantly higher acceptance threshold, which is consistent with ex post fairness. By varying the timing of the accept/reject decision of responders, we also show that intentions matter and present evidence of a choice anomaly in responder preferences concerning their willingness to accept extreme inequality.

3. Guo, Y., Shachat, J., Walker, M. J. & Wei, L. (2020). Viral social media videos can raise pro-social behaviours when an epidemic arises. [Revise and Resubmit at Journal of the Economic Science Association](#).

**Abstract:** At the onset of an epidemic, can viral social media videos induce the high levels of trust and pro-sociality required for a successful community response? Shortly after the outbreak of the COVID-19 virus in Wuhan, China, we conducted an experiment assessing the impact of viral videos on individual preferences and pro-social behaviour. Prior to the experiment, participants viewed one of three videos culled from Chinese social media: a central government leader visiting a local hospital and supermarket, health care volunteers transiting to Wuhan, or an emotionally neutral video unrelated to the emergency. Viewing one of the first two videos leads to higher levels of pro-sociality and increased ambiguity aversion relative to the third video. The leadership video, however, induces lower levels of trust. Our results suggest ways to craft more effective crisis response efforts and provide insights into how the direction of information in hierarchies influences trust in community members.

## Research in Progress

1. Trade Contingencies in Renegotiable Procurement Contracts.

**Abstract:** I analyse the effect of an arbitrator on the outcomes of renegotiable procurement contracts allocated at a price-based auction. If the seller has no contractual incentive to deliver high quality, trade is inefficient. It is shown that there exists a contingent contract, defined by the degree of contractual flexibility and the probability of arbitration, for which an efficient trade outcome can be implemented in equilibrium. This contract exists independently of the arbitrator's preferences. The theoretical result holds so long as the cost of arbitration is low enough and the availability of an arbitrator is uncertain. This result has an interesting implication: guaranteeing the availability of an arbitrator can be welfare-decreasing. I test the predictive power of the model in a controlled laboratory experiment with human subjects. Consistent with the theory, bidding is observed to be more competitive and high quality to be incentive compatible in the presence of an arbitrator. Yet a contingent contract cannot increase trade efficiency relative to a voluntary incentive arrangement. The arbitrator becomes a substitute for buyer reciprocity. There is evidence to suggest a significant fraction of buyers exhibit reference-dependent fairness preferences. The findings have implications for the establishment of contractual trust and procurement efficiencies driven by competition.

2. Trust and Trustworthiness in Procurement Contracts with Retainage (with Elena Katok and Jason Shachat).

**Abstract:** When product quality is unverifiable by third parties, and high quality is costly to provide, it becomes impossible to condition purchasing contracts on provided quality. In these situations, moral hazard flourishes when procurement is made through price-based reverse auctions. We use laboratory experiments with human subjects to investigate how incentives can be aligned to facilitate trust and trustworthiness in procurement contracts. To do this, we embed a retainage provision into the procurement contract creating a two-sided moral hazard environment. Retainage is a common incentive mechanism to insure against low quality in the construction industry. Crucially, it does not impose a requirement to condition price on quality. We observe that retainage can induce economically significant improvement in product quality, as predicted by a model of fair payment norms. This improvement was realized at the cost of increased buyer-seller profit inequalities. Informal procurement arrangements, characterized by high retainage, led to a welfare-decreasing market unraveling over time. Our results imply that a retainage mechanism can mitigate the tension between competition and cooperation arising from reverse auctions.

3. Late Payments in Bertrand Competition (with Kyle Hyndman).
4. Field Experience, Risk and Bidding in First-Price Auctions (with Ernan Haruvy and Timo Heinrich).

## Grants and Awards

ESRC National Productivity Investment Fund Doctoral Studentship Award 2017-2021 (No. ES/R500963/1).  
 Best Academic Performance in MSc. Experimental Economics Programme, Durham University, 2017.  
 Ustinov College Global Citizenship Scholarship Award, Durham University, 2016–2017.

## Academic Presentations

2020 Society for the Advancement of Behavioral Economics Annual Conference,  
 Utah Experimental Economics Conference.  
 2019 Behavioral Operations Conference (TU-Eindhoven),  
 Behavioral Operations and Economics Seminar Series (The University of Texas at Dallas).

## Workshop Participation

2020 Bargaining: Experiments, Empirics, and Theory.  
 2019 IFREE Graduate Student Workshop in Experimental Economics,  
 Annual Texas Experimental Association Symposium.  
 2018 ZEW Workshop on Market Design (Mannheim).  
 2017 Experimetrics: Econometrics for Experimental Data (University of East Anglia).

## Professional Activities

Economic and Social Research Council peer review.  
 Research Chair for Economics, Durham University Doctoral Society, 2019–Present.

## Professional Memberships

Economic Science Association (2020–Present).  
 Royal Economic Society (2020–Present).  
 European Economic Association (2020–Present).

## Teaching and Research Assistant

### *Durham University*

Teaching Assistant, Dissertation in Economics (Undergraduate Year 3): 2019 – 2020, Stata Lectures and Econometric Help Sessions.

Teaching Assistant, Economic Methods (Undergraduate Year 1): Autumn 2019.

Research Assistant, Kenju Kamei, December 2017 – March 2018.

## Non-Academic Work Experience

Operations Analyst, Nomura International plc, London, September 2014 – June 2016.

## Miscellaneous

*Programming skills:* R, Stata, SPSS, oTree (Python/HTML), zTree, Qualtrics,  $\LaTeX$ , Camtasia.

*Languages:* English (Native), Spanish (Fluent), Portuguese (Intermediate).