Vatsal Khandelwal

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Education

- (2021) **Doctor of Philosophy (DPhil) in Economics,** University of Oxford.
  Supervisors: Prof. Stefan Dercon, Prof. Alexander Teytelboym.
- (2017) **MSc in Economics for Development**, University of Oxford.
  Awarded distinction. Awarded the Luca D'Agliano Prize for the Best Dissertation and George Webb Medley Prize, proxime accessit (runner up) for Best Overall Performance.
- (2015) **Bachelor of Arts (B.A.) in Economics,** St. Xavier's College, Mumbai.
  Awarded distinction. Pronounced batch Valedictorian (Arts) for the highest CGPA.

Visiting Positions

- **Visting Scholar,** King Center on Global Development, Stanford University. *Summer, 2023*
- **Visiting Fellow**, Harvard University. *Spring Term, 2021*

Fields

Primary Fields: Applied Microeconomics, Development Economics, Behavioural Economics.

Secondary Fields: Microeconomic Theory, Social and Economic Networks, Health, Labour.

References

Prof. Stefan Dercon,
Department of Economics,
University of Oxford.
stefan.dercon@economics.ox.ac.uk

Prof. Alexander Teytelboym,
Department of Economics,
University of Oxford.
alexander.teytelboym@economics.ox.ac.uk

Prof. Simon Quinn,
Department of Economics & Public Policy, Imperial College Business School.
simon.quinn@imperial.ac.uk

Prof. Marcel Fafchamps,
Freeman Spogli Institute,
Stanford University.
fafchamp@stanford.edu

Current Position

- (2021-2024) Peter J. Braam Junior Research Fellow in Global Wellbeing at Merton College, University of Oxford.

Research

- **Job Market Paper:** "Silent Networks: The Role of Inaccurate Beliefs in Reducing Useful Social Interactions" (with Ronak Jain) Draft available here.

  Inaccurate beliefs about social norms can reduce useful social interactions and adversely affect an individual's ability to deal with negative shocks. We run a randomised controlled trial with low-income workers in urban India who lack access to formal financial and healthcare support. We find that the majority of individuals underestimate their community's willingness to engage in dialogue around financial and mental health concerns. Belief correction leads to a large increase in the demand for network-based assistance. Additional survey experiments show that the effects are primarily driven by a reduction in the perceived costs of violating social norms. Implementation of a hypothetical choice experiment allows us to identify whether these costs are driven by concerns around signalling, reputation, or insensitivity. Then, we structurally estimate a network diffusion model to benchmark the predicted long-run effects of our intervention against counterfactual interventions. We predict that the large effects on engagement will not translate into a shift in equilibrium. We compute the strength of counterfactual interventions needed to sustain these effects and find that belief correction can be used to generate both the demand and funding for these policies.

Publications

- "Learning in Networks with Idiosyncratic Agents." (*Accepted, Games and Economic Behaviour*) Draft available here.

  Individuals update their beliefs and respond to new information in idiosyncratic ways. I show that an individual's idiosyncrasies such as under-reaction, over-reaction, or frustration can have spillover effects and adversely affect the long run beliefs of society. I derive sufficient conditions for convergence of beliefs for all possible networks of agents with heterogeneous idiosyncrasies. Beliefs converge if the magnitude of over-reaction and frustration in any agent's network neighbourhood is below a threshold determined by how much they trust their own private signals. I find that the absence of disproportionately influential agents is not sufficient to ensure the accuracy of long-run beliefs if learning idiosyncrasies also grow with the network. Finally, I show that agent under-reaction can partition the network, create bottlenecks, and delay convergence. Simulations on artificial and Indian village networks validate the results.

Working Papers

- "Great Expectations: Experimental Evidence from Schools in Pakistan" (with Ronak Jain and Minahil Asim). Working Paper available here.

  We study whether conveying student-specific teacher expectations of high effort and achievement affects academic performance. Working with over 280 classrooms in Pakistan, we randomize whether students (a) receive individual-specific teacher expectations; (b) are additionally randomly paired with a classmate and asked to encourage each other; (c) simply receive information about their last test score, or (d) receive no message at all. We find that expectations increase math scores by 0.2 standard deviations and the effect persists after six months. Additionally, pairing students raises scores by 0.27 standard deviations, but only for those whose matched peer is similar to them in terms of baseline performance or teacher expectations. Finally, information provision alone only increases scores by 0.2 standard deviations in the short term; this effect is primarily driven by schools with low parental literacy.

- "Can Network Ties Help Facilitate Female Entrepreneurship?" (with Juni Singh). Working Paper Available here.

  Despite many skill and entrepreneurship programs, the gender gap in entrepreneurial activities is high in developing countries. This paper focuses on bridging this gap by studying the role of peers in facilitating entrepreneurial growth for women. Peers provide direct benefits in terms of motivation, skills, and information and indirect benefits in providing access to a broader social network. Through an RCT, we vary if women attend a three-day training program with a

randomly matched peer in the network vs. alone and whether the indirect value of the network connections of the matched peers is made salient to them. We measure the impact of the training on outcomes immediately and one year later. While the training significantly improves pro-business outcomes, pairing matters only when the individual is paired with a close friend, and more so if this friend is network central. Making the indirect value of the network more salient only has modest positive effects.

- "Spatial Inequality and Informality in Kenya's Firm Network" (with Verena Wiedemann, Peter Wankuru Chacha, and Benard Kipyegon Kirui). Working Paper available here.

  The spatial configuration of supply chains plays a crucial role in the transmission of shocks. This paper leverages transaction-level tax records to study spatial patterns of domestic firm-to-firm trade in Kenya and explores how these patterns may be shaped by the presence of an unobserved informal sector. First, we document stylised facts about formal firms in this setting, revealing a high degree of spatial concentration in the network. 90% of the cross-regional variation in trade volumes can be attributed to the extensive margin of trade, the location of firms and the number of firm-to-firm relationships. Using data from the population census and national accounts, we show that informality is particularly prevalent in downstream economic activities and smaller regional markets. We structurally estimate a network formation model to investigate how accounting for informal firms affects spatial inequality in firm-to-firm trade. Counterfactual predictions suggest that not accounting for informal firms underestimates the connectivity and vulnerability of smaller regions to shocks, especially those that pass through metropolitan hubs.

Work in Progress

- "Impact of a Government-led Mental Health Intervention on Teaching Practices and Student Outcomes" (with Preetham Rodrigues) *Fieldwork Ongoing.*

  We are working with schools across 36 districts in Maharashtra, India to study how a government-mandated mental health training for teachers can affect teaching practices and student outcomes. The training involves the implementation of modules around student emotional well-being. We will study the impact of this training on various tradeoffs that teachers face regularly between student academic performance at the cost of work-induced stress, sociability with peers at the cost of academic effort, and course understanding at the cost of syllabus completion. Further, we will analyse the impact of the intervention on student academic performance, non-cognitive outcomes, and engagement with their social networks.

- "Network Dynamics of Temporary Migration". Previously titled "'Social Networks, Risk Sharing and Circular Migration: Evidence from Rural India."

  I show that interventions promoting rural-urban migration can have heterogeneous impacts on agents in different network positions. I develop a model in which agents in rural social networks exchange favours to facilitate the flow of goods and information and decide whether to temporarily migrate depending on their expected benefits. I derive each agent's decision to migrate and their preferences over the migration decisions of others as a function of their network position. I find that agents who lie on more shortest paths are less likely to migrate and prefer lower average migration in the network. Next, I show that decisions to migrate can be strategic complements or substitutes for different agents. Finally, I use data on social networks in Indian villages and find that decisions to work outside the village are correlated with the network measure predicted by the model, and these decisions exhibit positive peer effects.

Research Grants

- (2022) CSAE Top up Research Grant (£6,440) for "Silent Networks: The Role of Inaccurate Beliefs in Reducing Useful Social Interactions" with Ronak Jain.
- (2020) JPAL Post Primary Education Grant ($20,548) for "Pygmalion Effect and Education Networks: Evidence from Schools in Pakistan" with Ronak Jain and Minahil Asim.

- (2019) Research on Improving Systems of Education (RISE) Grant ($40,000) for "Pygmalion Effect and Education Networks: Evidence from Schools in Pakistan" with Ronak Jain and Minahil Asim.
- (2019) Centre for the Study of African Economies Research Grant (£4,030) for "Silent Networks: The Role of Inaccurate Beliefs in Reducing Useful Social Interactions" with Ronak Jain. Previously titled "Misperceptions about Interpersonal Dialogue in Social Networks".

Scholarships and Prizes

- (2020) Final Year Doctoral Bursary, Department of Economics, University of Oxford.
- (2018) Two Year Doctoral Bursary, Department of Economics, University of Oxford.
- (2017) Hicks Scholarship in Economics, Linacre College, University of Oxford.
- (2017) Luca D'Agliano Prize for the Best Dissertation in the MSc in Economics for Development, University of Oxford. Awarded for the paper "Social Networks, Risk Sharing and Circular Migration: Evidence from Rural India".
- (2017) George Webb Medley Prize, proxime accessit (runner up) for Best Overall Performance in the MSc in Economics for Development, University of Oxford.
- (2016) Queen Elizabeth House Departmental Scholarship (covering all fees and living costs for the MSc in Economics for Development). Awarded by the Scholarships Committee for the Oxford Department of International Development and Corpus Christi College.
- (2015) Dr. Edgar DaSilva Memorial Prize and Mr. Badi C Tyabjee, J.J & B.J Lalwani, and Billoo scholarship for highest aggregate in B.A. examinations, St. Xavier's College, Mumbai.
- (2015) Vinod Mehra Scholarship for the Best Cultural Talent, St. Xavier's College, Mumbai.
- (2014) Fredie A. Mehta Scholarship for highest marks in Economics in First and Second Year and continuing with Economics in the Third Year at St. Xavier's College, Mumbai.
- (2012) Certificate Of Merit by the Central Board of Secondary Education "for reasons of outstanding academic performance and for being among the top 0.1% of successful candidates" of the All India Senior School Certificate Examinations in Mathematics.

Teaching Experience

Graduate Teaching

- (2023-24) Course Convener for Microeconomic Theory, MSc in Economics for Development, University of Oxford. I will teach topics in game theory including discrete and continuous games, hidden action, signalling, and auctions.
- (2022-23) Course Convener for "Applications of Behavioural Economics to the Developing World", MSc in Economics for Development, University of Oxford.
- (2020-21) Department of Economics Graduate Teaching Assistant, University of Oxford. Taught classes in Microeconomics to first year Economics MPhil students.
- (2018) Assisted Dr. Natalie Quinn in revising and delivering the pre-sessional math course for the MSc in Economics for Development at the University of Oxford.

Undergraduate Teaching

- (2019-20) Department of Economics Graduate Teaching Assistant at Pembroke College, Oxford. Taught Core Microeconomics, Microeconomic Analysis, and Quantitative Economics.
- (2018-19) Department of Economics Graduate Teaching Assistant at Pembroke College, Oxford. Taught Microeconomic Analysis, Game Theory, and Quantitative Economics.

Research Experience

- (2019- 20) Research Assistant at the Department of Economics (from *Aug 2019* to *June 2020*) and then at the Department of International Development (from *July 2020* to *Sept 2020*), University of Oxford. Assisted Dr. Rossa O'Keeffe-O'Donovan on a project that intends to model and evaluate the spatial spillover effects of cash transfers.
- (2018-19) Research Assistant in Development Economics at the Blavatnik School of Government. Assisted Dr. Mahreen Mahmud on a project that studies the impact of cash transfers and a psychological intervention on the outcomes of women in Kenya.
- (2015-16) Research Consultant at the Abdul Latif Jameel Poverty Action Lab (J-PAL) on the Bus Drivers Training Project. Involved with designing questionnaires, managing survey teams, cleaning and analyzing data, and coordinating with local partners.

Miscellaneous

- **Other Roles/Affiliations:**
  - (2020-2021) Managed CSAE's Coders' Corner – a repository of advice around coding.
  - (2023-)Team Member of Lab[2] — a metascience lab for experimentation in science.
- **Softwares skills:** Matlab, Stata, Mathematica, Gephi, LaTeX, Qualtrics.