

**Researchers**

Nava Ashraf  
London School of Economics and Political Science

Gharad Bryan  
London School of Economics and Political Science

Alexia Delfino  
London School of Economics and Political Science

Leonardo Iacovone  
World Bank

Ashley Pople  
University of Oxford

Emily Holmes  
Karolinska Institutet

Learning to see the world's opportunities: The impact of  
imagery on entrepreneurial success\*

Nava Ashraf<sup>1</sup> Gharad Bryan<sup>1</sup> Alexia Delfino<sup>3</sup> Emily Holmes<sup>4</sup>  
Leonardo Iacovone<sup>5</sup> Ashley Pople<sup>2\*</sup>

May 4, 2022

Recent work in neuroscience and psychology has underscored the impact of visualizing future scenarios on decision making, via mental simulation, emotional amplification, and consolidation of memory. We show evidence of the path and importance of imagery-based decision making for the vital economic activity of entrepreneurship. We also highlight that the use and impact of this ability is highly heterogeneous depending on people's life experiences, and it has the potential to benefit vulnerable populations the most. First, using a data set of roughly 2,000 would-be entrepreneurs in Colombia, we show that measures of imagery use correlate strongly and positively with economic outcomes. Second, we design a training curriculum to teach visualization skills, and test it using a randomized control trial in which the same entrepreneurs were given access to either the imagery-based entrepreneurial training program, a placebo program of traditional business skills training, or no program at all. In follow-up surveys conducted 8 and 11 months after the intervention, those who participated in the imagery training demonstrated a strengthened capacity for using visualization and significantly improved economic outcomes compared to the placebo. For individuals with high levels of baseline trauma, imagery addresses their deficit in positive imagery. Women in the imagery training improve along all metrics compared to men, and are negatively impacted by traditional business training. Improved entrepreneurial outcomes appear to be driven by enhanced ability to obtain credit, build savings, and undertake creative marketing with customers and competitors. Our results suggest that training which ignores the emotional content of economic activity is not as effective as that which leverages the emotions inherent in economic decisions. *JEL Codes* D91, J24, J26, S13

\*We thank Innovations for Poverty Action Colombia for their support in data collection and partnership management, and Montiel El Kadiri, Miguel Fajardo-Retoldano, George MacDonald and Mike Song for excellent research assistance. We are grateful to Maria Paula Gómez Franco, Juan David Ángel Castaño, Cecilia Andrea Hernández Estrada, Mariana Medina and Manuel Pardo for their input in the curriculum design, training and supervision of the implementation team. We thank Stefan Dizon, Karim Galani, Suprat Kar, and David Latham for very helpful comments. We gratefully acknowledge the financial support of IPA Peace and Recovery Program, J-PAL Post-Primary Education, J-PAL Jobs and Opportunity Initiative, the British Academy and the Institute of Global Affairs at the LSE. This RCT was registered in the American Economic Association Registry for randomized control trials under Trial number AEARCTR-0008003. It received official approval by the Innovation for Poverty Action Institutional Review Board USA (IPA IRB Protocol No. 14036) and the London School of Economics Research Ethics Committee (RES/ Ref No. 07694).

<sup>1</sup>London School of Economics: n.ashraf@lse.ac.uk

<sup>2</sup>London School of Economics: g.c.bryan@lse.ac.uk

<sup>3</sup>London University: alexia.delfino@lse.ac.uk

<sup>4</sup>Uppsala University: emily.holmes@upmc.se

<sup>5</sup>The World Bank: l.iacovone@worldbank.org

<sup>\*\*</sup>University of Oxford: ashley.pople@economics.ox.ac.uk

Learning to see the world's opportunities: The impact of imagery on entrepreneurial success

# Learning to see the world's opportunities: The impact of imagery on entrepreneurial

## success

May 04, 2022

Recent work in neuroscience and psychology has underscored the impact of visualizing future scenarios on decision-making, via mental simulation, emotional amplification, and consolidation of memory. We show evidence of the path and importance of imagery-based decision-making for the vital economic activity of entrepreneurship. We also highlight that the use and impact of this ability is highly heterogeneous depending on people's life experiences, and it has the potential to benefit vulnerable populations the most. First, using a data set of roughly 2,000 would-be entrepreneurs in Colombia, we show that measures of imagery use correlate strongly and positively with economic outcomes. Second, we design a training curriculum to teach visualization skills and test it using a randomized control trial in which the same entrepreneurs were given access to either the imagery-based entrepreneurial training program, a placebo program of traditional business skills training, or no program at all. In follow-up surveys conducted 8 and 14 months after the intervention, those who participated in the imagery training demonstrated a strengthened capacity for using visualization and significantly improved economic outcomes compared to the placebo. For individuals with high levels of baseline trauma, imagery addresses their deficit in positive imagery. Women in the imagery training improve along all margins compared to men and are negatively impacted by traditional business training. Improved entrepreneurial outcomes appear to be driven by an enhanced ability to obtain credit, build savings, and undertake creative marketing with customers and competitors. Our results suggests that training which ignores the emotional content of economic activity is not as effective as that which leverages the emotions inherent in economic decisions.