

# **Beyond Muller-Lyer: Culture shapes ‘universal’ visual phenomenology in multiple illusions across a rural-urban gradient**

**Ivan Kroupin**

London School of Economics and Political Science, London, United Kingdom

**Helen Elizabeth Davis**

Arizona State University, Pheonix, Arizona, United States

**Aparicio Jose Paredes Lopes**

London School of Economics and Political Science, London, United Kingdom

**Talia Konkle**

Harvard University, Cambridge, Massachusetts, United States

**Michael Muthukrishna**

London School of Economics and Political Science, London, United Kingdom

## **Abstract**

How cultural experience affects visual perception is a question of outstanding interest to debates regarding universality and cultural-specificity in human cognition. Yet, work comparing visual perception in ‘typical’ urban, industrialized samples with groups living in rural environments, typical for 99% of our species’ history is strikingly limited (Deregowski, 2017). Here we more than double the total number of paradigms (visual illusions) in this literature, reporting data from 1) a ‘typical’ UK/US urban sample 2) a developing Namibian town 3) rural Namibian villages. Results reveal profound differences in visual processing, including aspects previously assumed to be universal (e.g. amodal completion in Gestalt shapes, line perception in the Cafe wall illusion). In contrast to recent arguments for the limited role of cultural experience in visual perception (Amir & Firestone, 2025), the present work indicates that a major research program in CCVS is warranted to capture the ways culture shapes visual perception.