'Stunning breadth of scholarship'

Joseph Henrich, Human evolutionary biology, Harvard University

'Wonderfully refreshing and thought-provoking'

Peter Frankopan, History, Oxford University

'Makes sense of our historical moment'

Joshua Greene, Psychology, Harvard University

'Hugely enjoyable'

Ian Morris, Archaeology, Stanford University

'Muthukrishna has a heart as big as his intellect'

Andrew McAfee, MIT Sloan School of Management

'A fabulous book'

'Dense yet

accessible read'

The Economist

The Guardian muth.io/book

ATheory of Everyone

Who we are
How we got here
Where we are
going

Michael Muthukrishna

'Mind expanding – this book will change your view of the world forever.' Matthew Syed

'A Theory of Everyone is for everyone'

Walter Sinnott-Armstrong, Philosophy, Duke
University

'Ambitious and breathtaking sweep'

David Halpern, Behavioural Insights Team

'Extremely important'

Charles Hall, Energy scientist, SUNY

'Marvellous, rich and entertaining'

Kevin Lala, Biology, University of St Andrews

'Astonishing... will change the way you think'

Nichola Raihani, Evolution and behavior, UCL

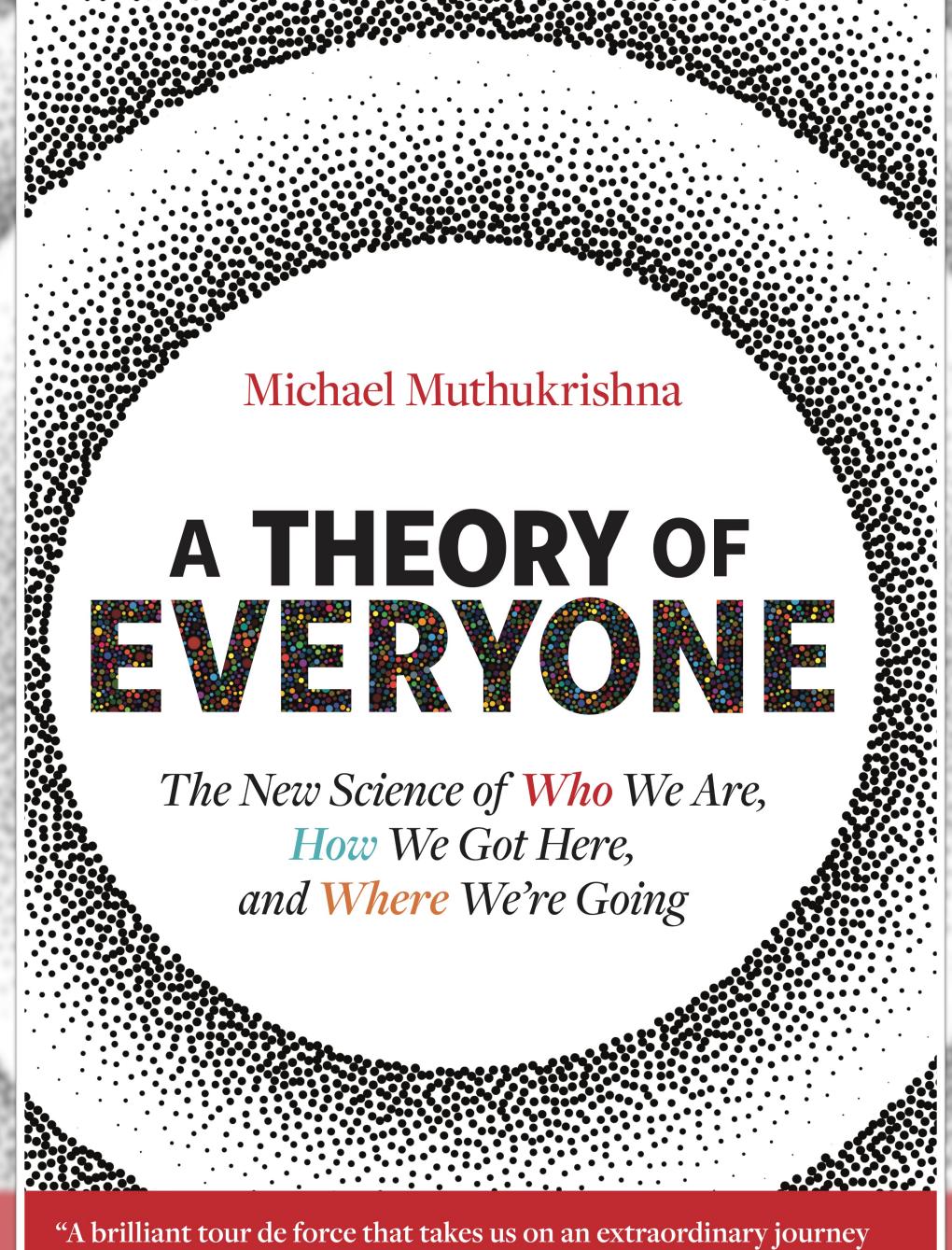
'The most important book you will read this year'

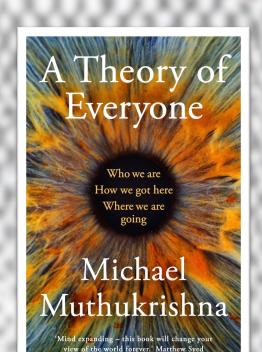
Brian Hare, Primatology and psychology,
Duke University











into the fundamental dynamics of what makes us human." -MICHELE GELFAND

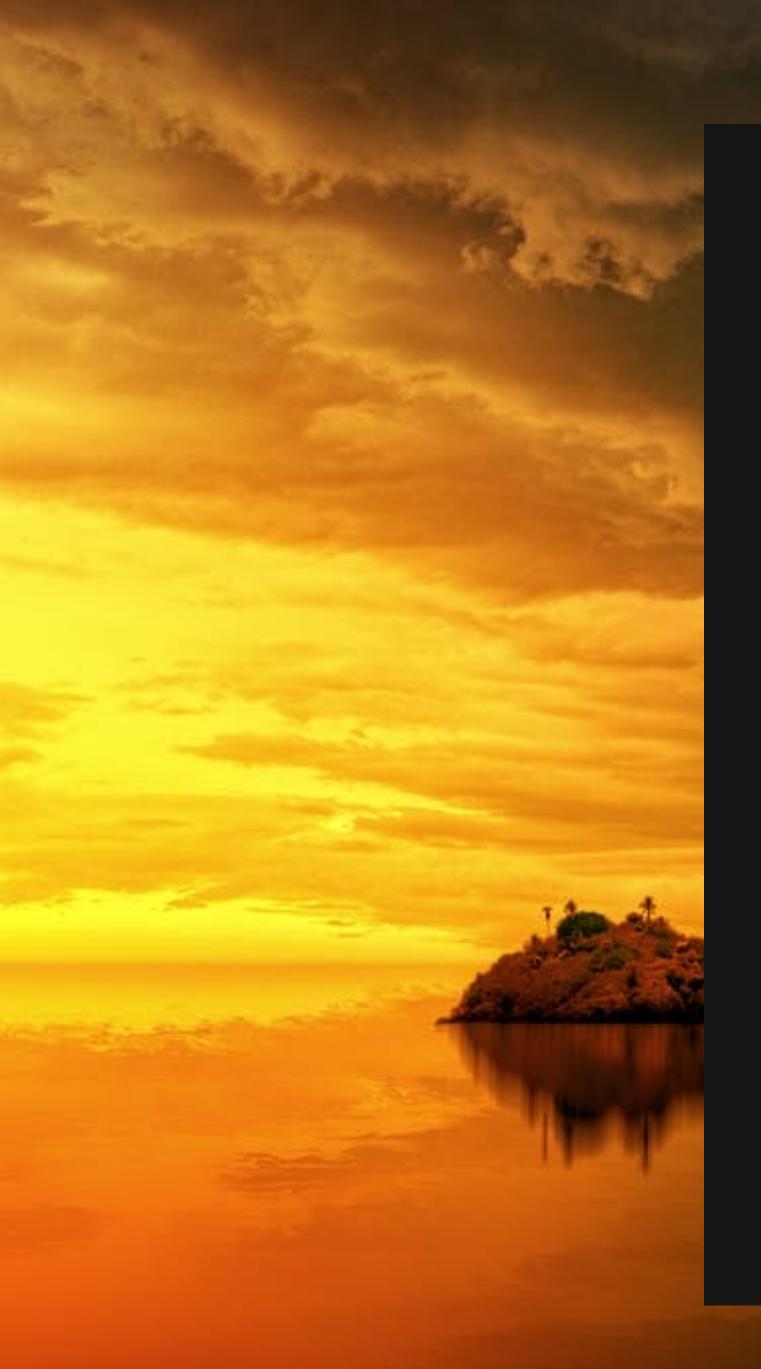












And God said

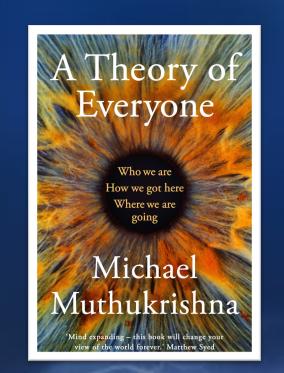
$$\nabla \cdot \vec{E} = \frac{\rho}{\varepsilon_0}$$

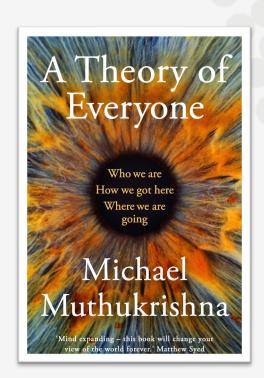
$$\nabla \cdot \vec{B} = 0$$

$$\nabla \times \vec{E} = -\frac{\partial \vec{B}}{\partial t}$$

$$\nabla \times \vec{B} = \mu_0 \vec{J} + \frac{1}{c^2} \frac{\partial \vec{E}}{\partial t}$$

and there was light.





And God said

$$\nabla \cdot \vec{E} = \frac{\rho}{\varepsilon_{\theta}}$$

$$\nabla \cdot \vec{B} = 0$$

$$\nabla \times \vec{E} = -\frac{\partial B}{\partial t}$$

$$\nabla \times \vec{E} = -\frac{\partial \vec{B}}{\partial t}$$

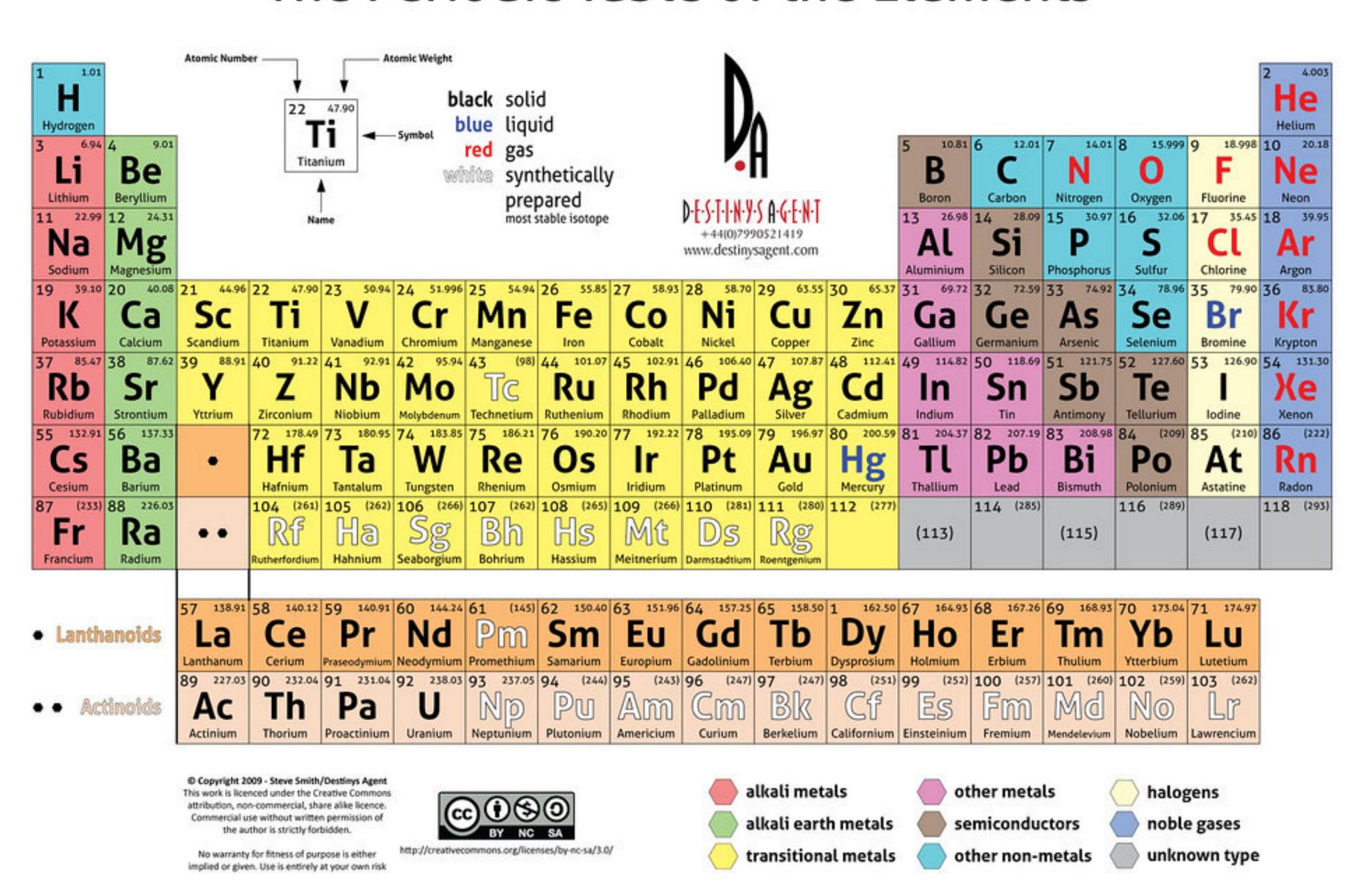
$$\nabla \times \vec{B} = \mu_0 \vec{J} + \frac{1}{c^2} \frac{\partial \vec{E}}{\partial t}$$

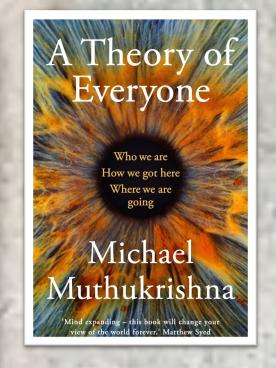
and there was light.

Science of Who We Are,

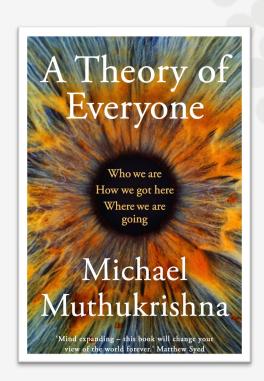


The Periodic Table of the Elements





ATHEORY OF



And God said

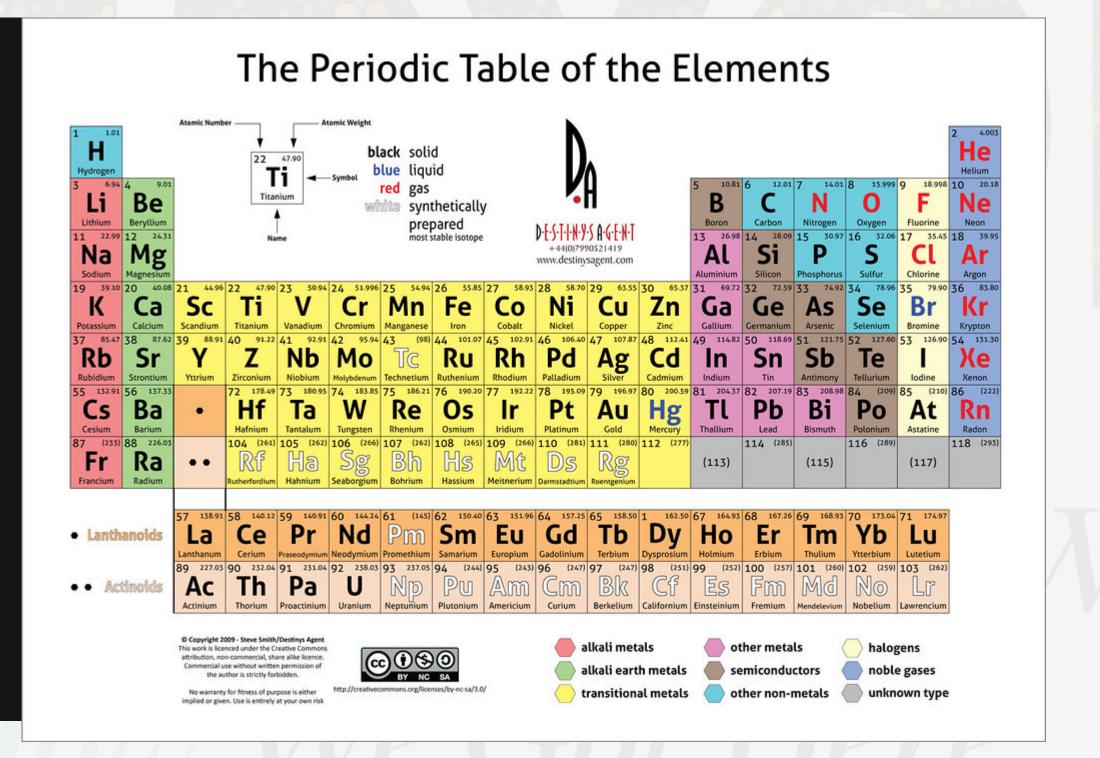
$$\nabla \cdot \vec{E} = \frac{\rho}{\varepsilon_0}$$

$$\nabla \cdot \vec{B} = 0$$

$$\nabla \times \vec{E} = -\frac{\partial \vec{B}}{\partial t}$$

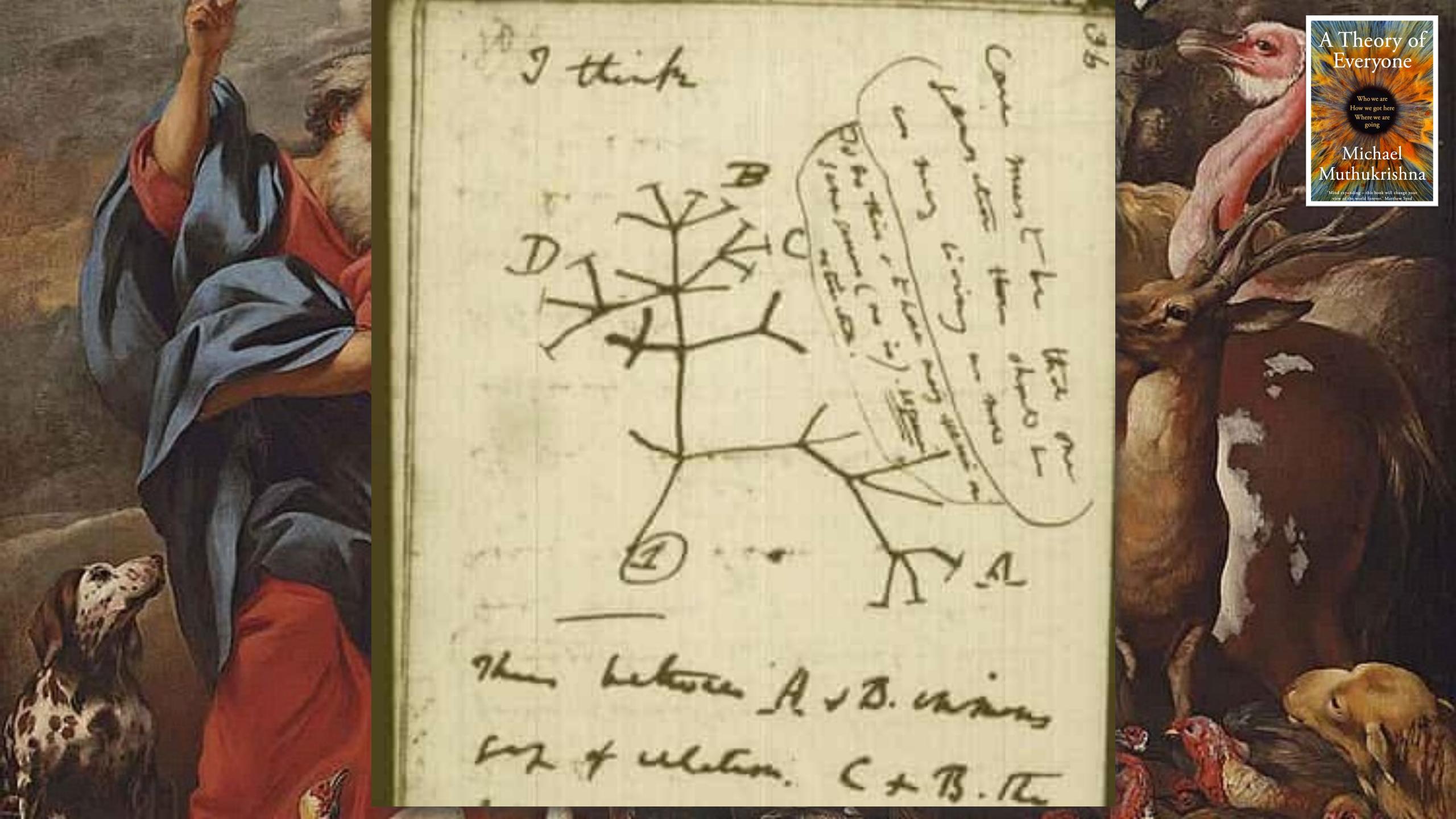
$$\nabla \times \vec{B} = \mu_0 \vec{J} + \frac{1}{c^2} \frac{\partial \vec{E}}{\partial t}$$

and there was light.

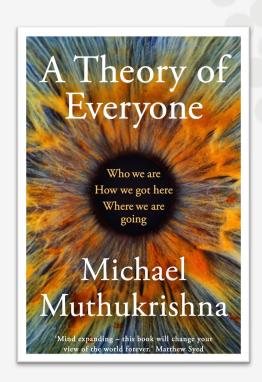








ATHEORY



And God said

$$\nabla \cdot \vec{E} = \frac{\rho}{\varepsilon_{\theta}}$$

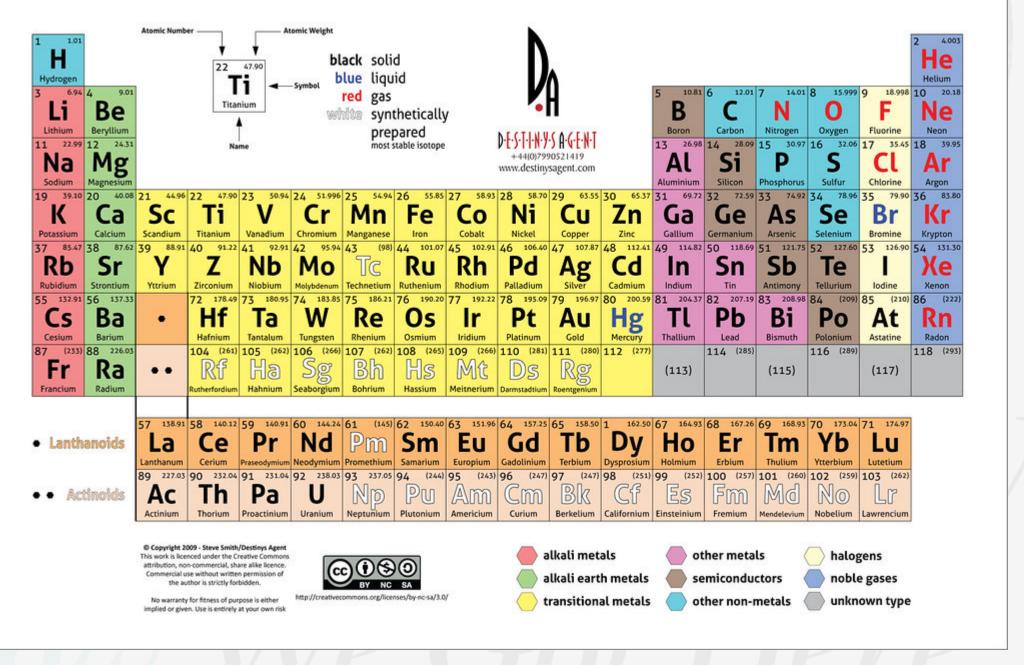
$$\nabla \cdot \vec{B} = 0$$

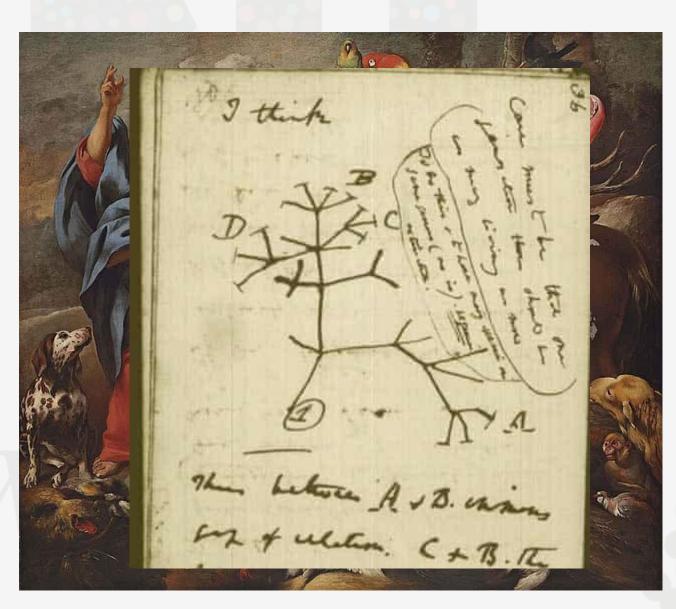
$$\nabla \times \vec{E} = -\frac{\partial \vec{B}}{\partial t}$$

$$\nabla \times \vec{B} = \mu_{\theta} \vec{J} + \frac{1}{c^{2}} \frac{\partial \vec{E}}{\partial t}$$

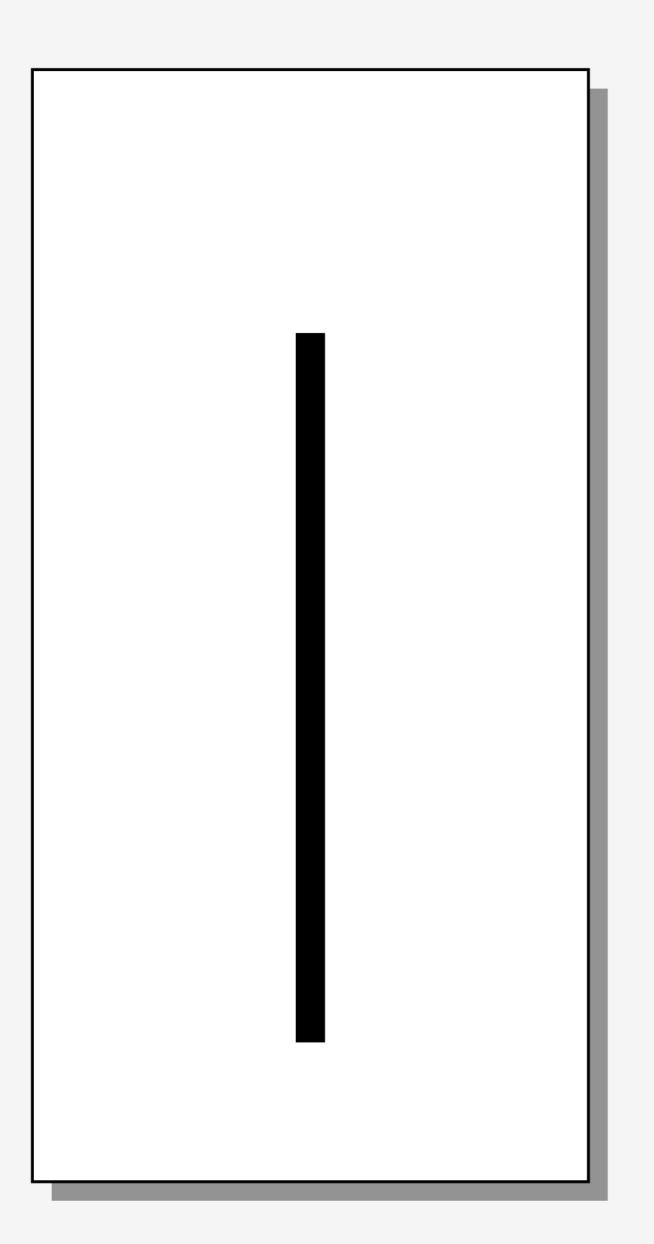
and there was light.

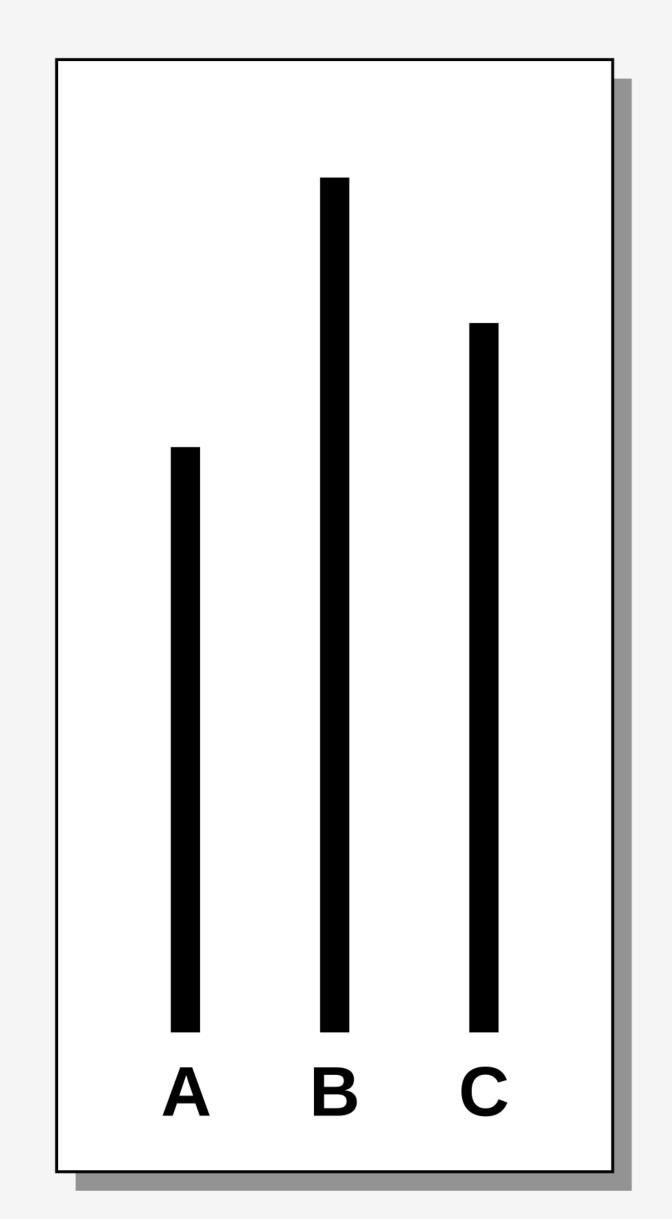
The Periodic Table of the Elements

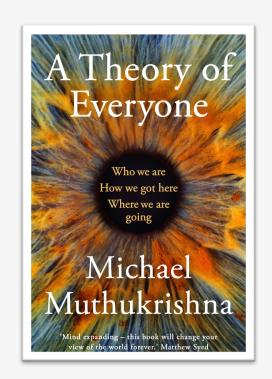




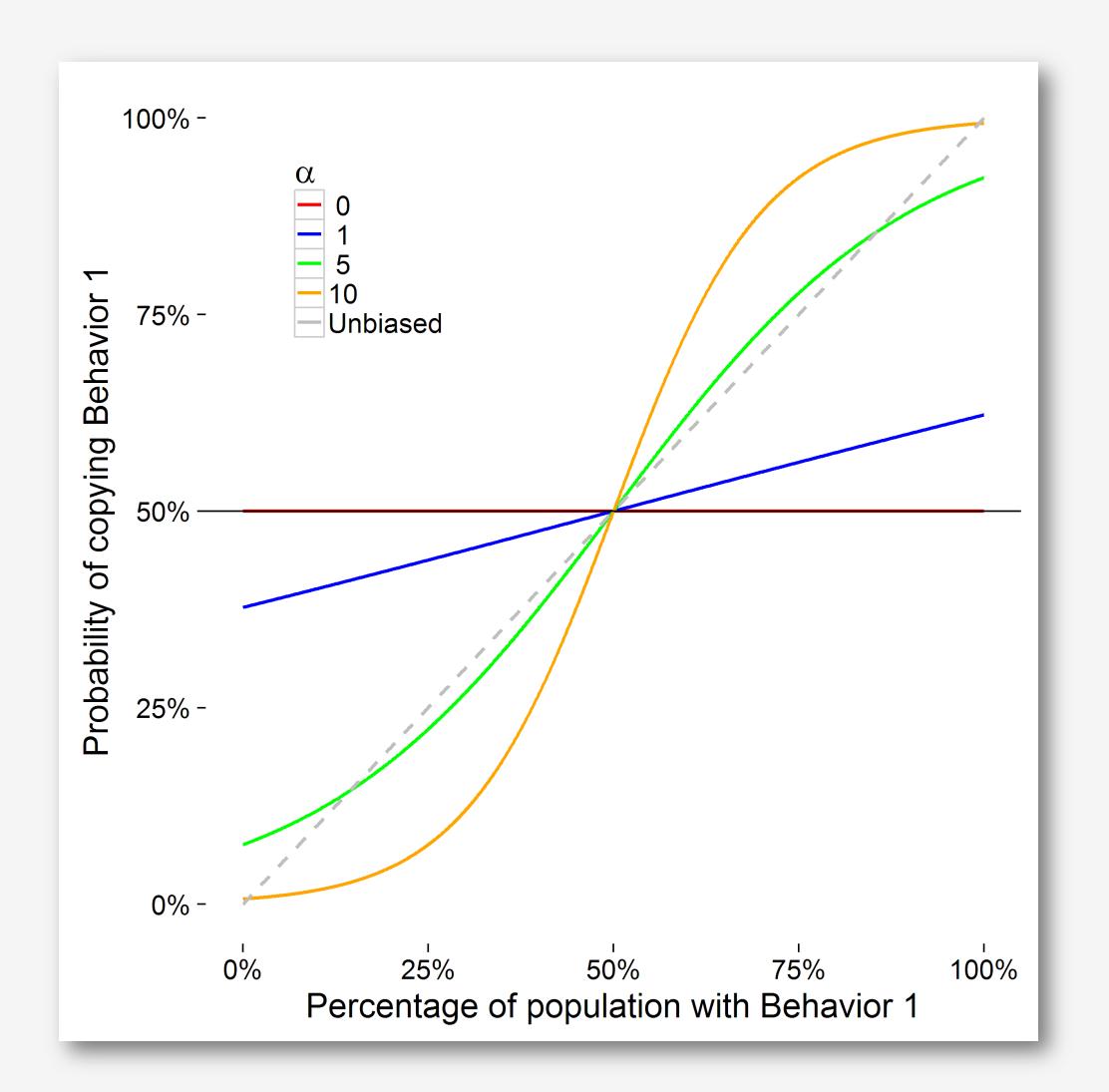


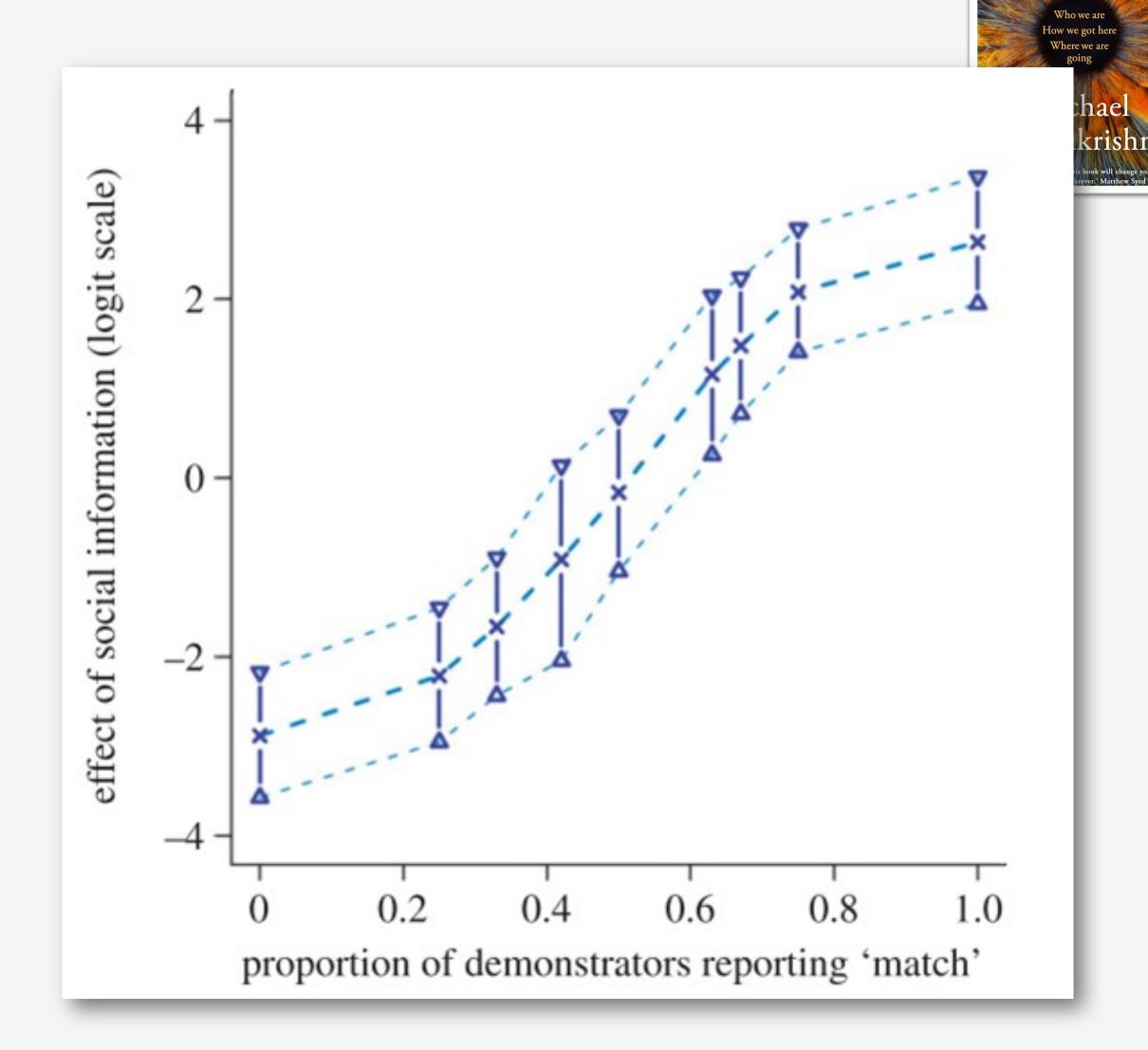










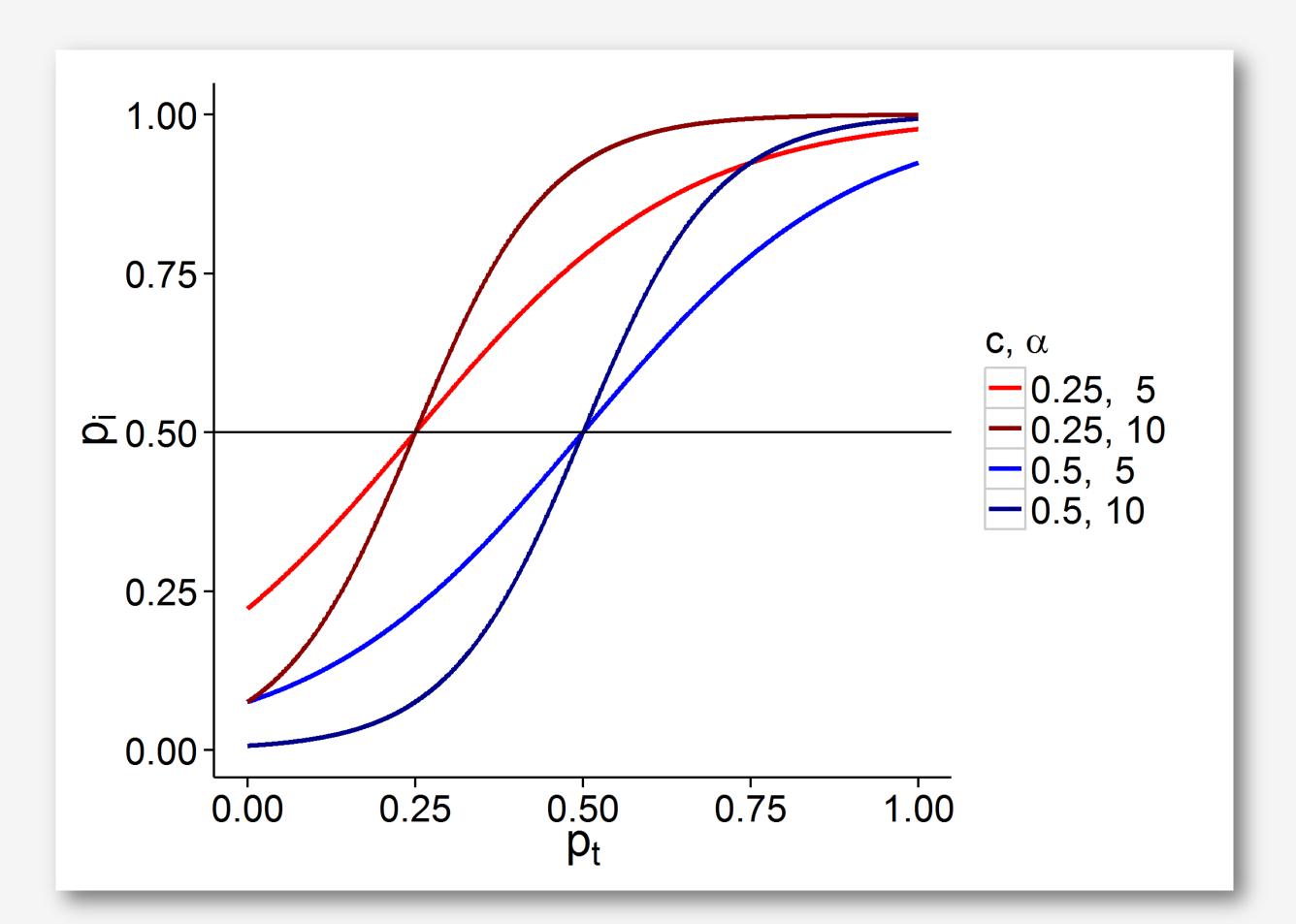


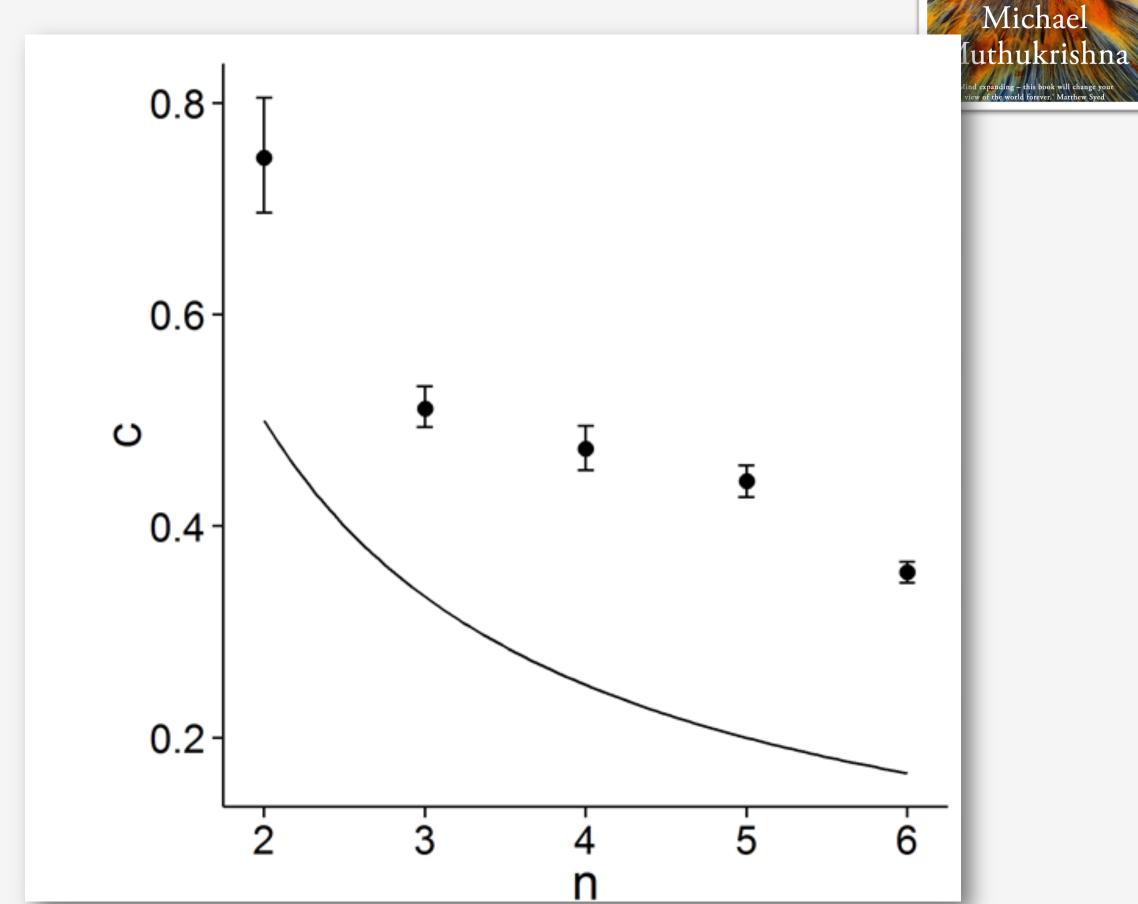
Everyone

Muthukrishna, M., Morgan, T. J., & Henrich, J. (2016). The when and who of social learning and conformist transmission. *Evolution and Human Behavior*, 37(1), 10-20.

Muthukrishna, M., & Henrich, J. (2019). A problem in theory. Nature Human Behaviour, 3(3), 221-229.







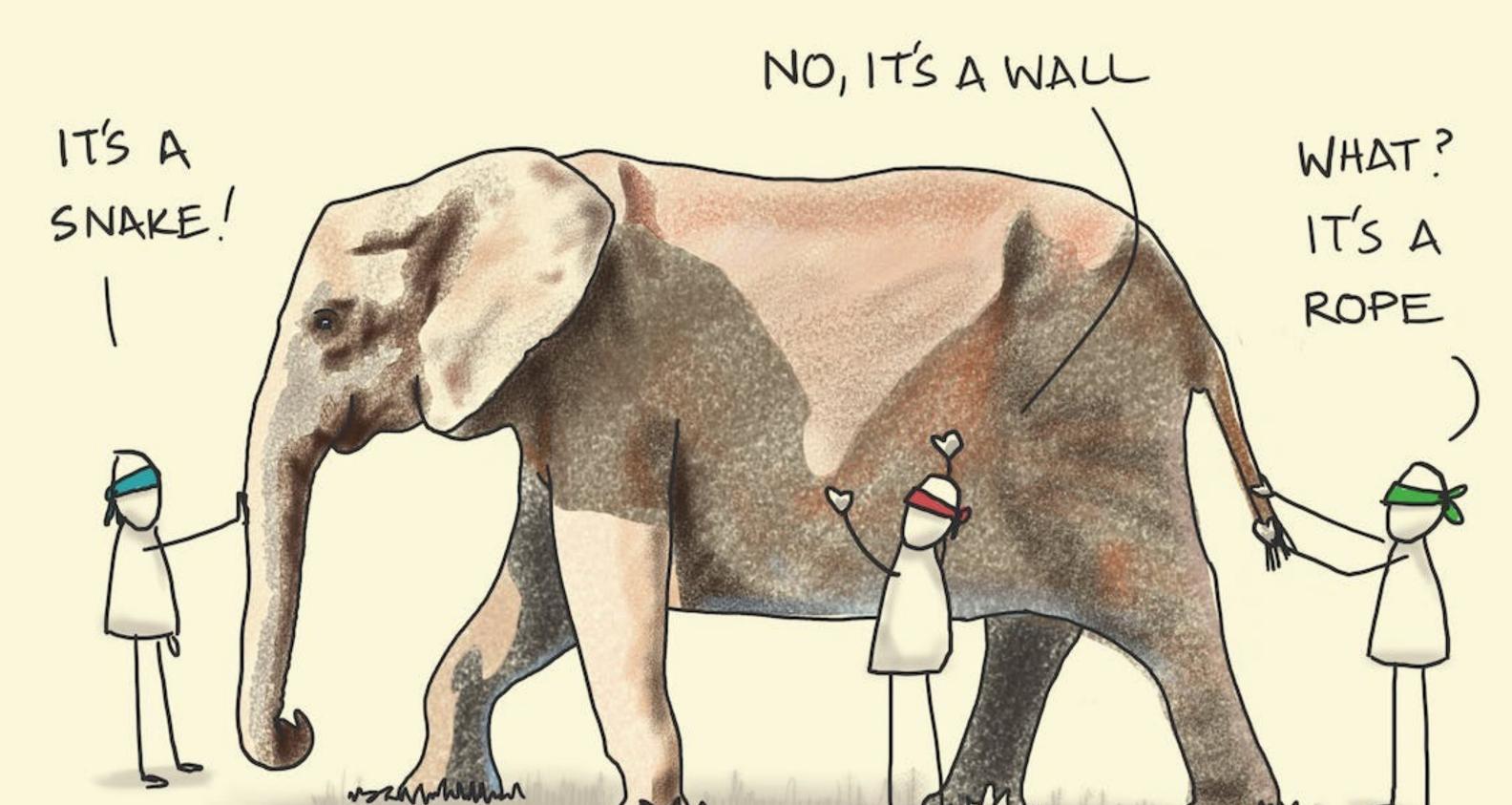
Everyone

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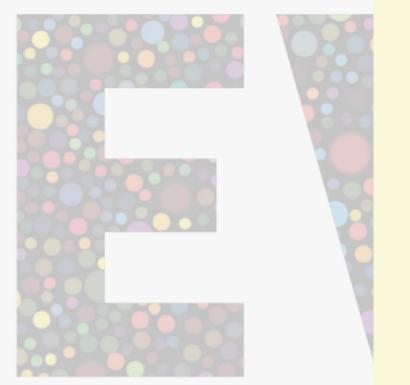
Muthukrishna, M., & Henrich, J. (2019). A problem in theory. Nature Human Behaviour, 3(3), 221-229.

THE BLIND AND THE ELEPHANT

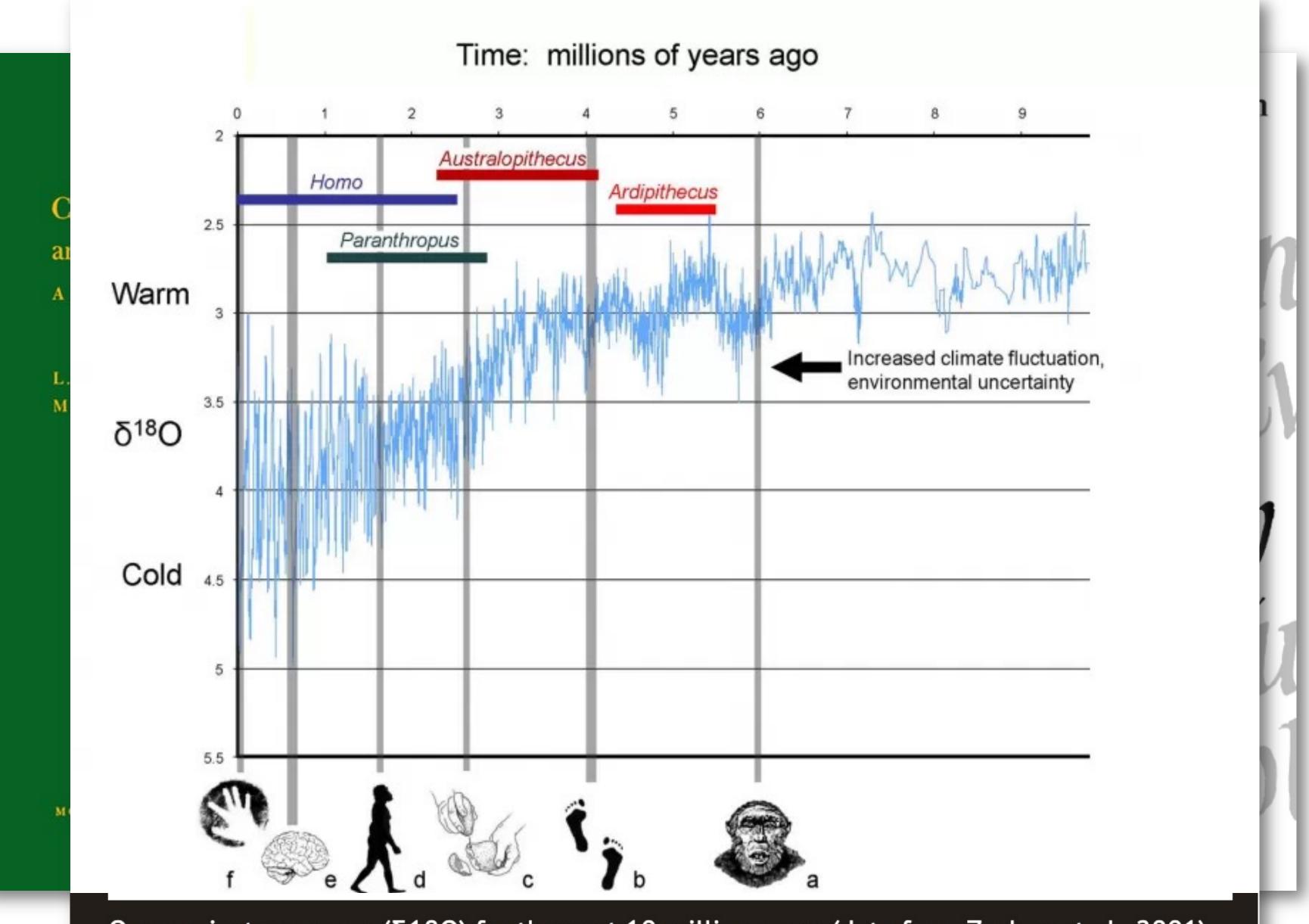
OUR OWN EXPERIENCE IS RARELY THE WHOLE TRUTH

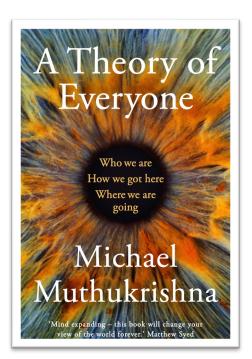


Sketchplanations









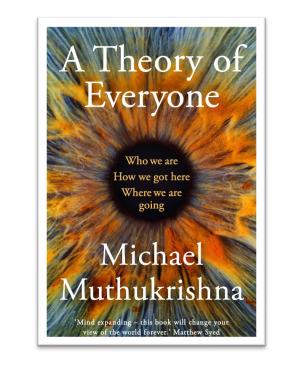
Oxygen isotope curve (δ 180) for the past 10 million years (data from Zachos et al., 2001)

Cavalli-Sforza, L. L., & (© Copyright Smithsonian Institution)

Princeton University Press.

GENETIC Inheritance

CULTURAL Inheritance







EYE COLOUR



HAIR COLOUR & TYPE



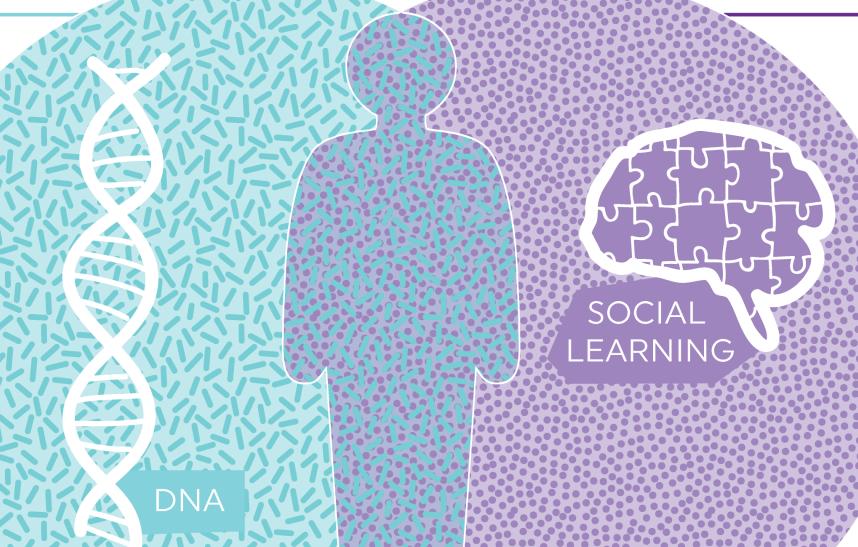
SKIN COLOUR

SOME GENETIC DISORDERS



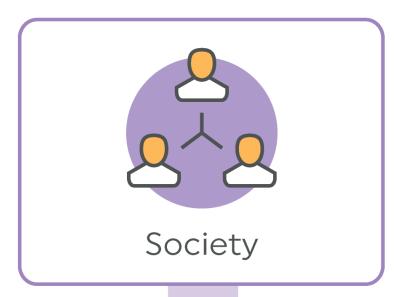
LACTASE PERSISTENCE

BLOOD TYPE



CULTURE **GENETICS** GENETICS x CULTURE

= HUMAN





BELIEFS







VALUES

SOCIAL NORMS





TRADITIONS



TECHNOLOGIES



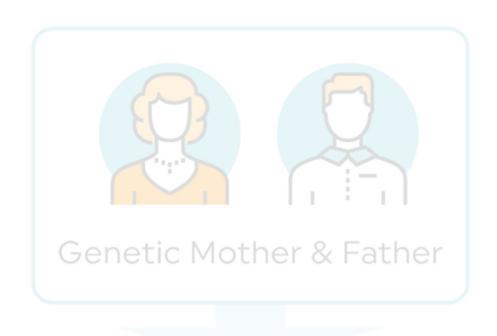
FOOD



LITERACY MATHEMATICS

CREATED BY VERONIKA PLANT (2019) in collaboration with MICHAEL MUTHUKRISHNA

GENETIC Inheritand



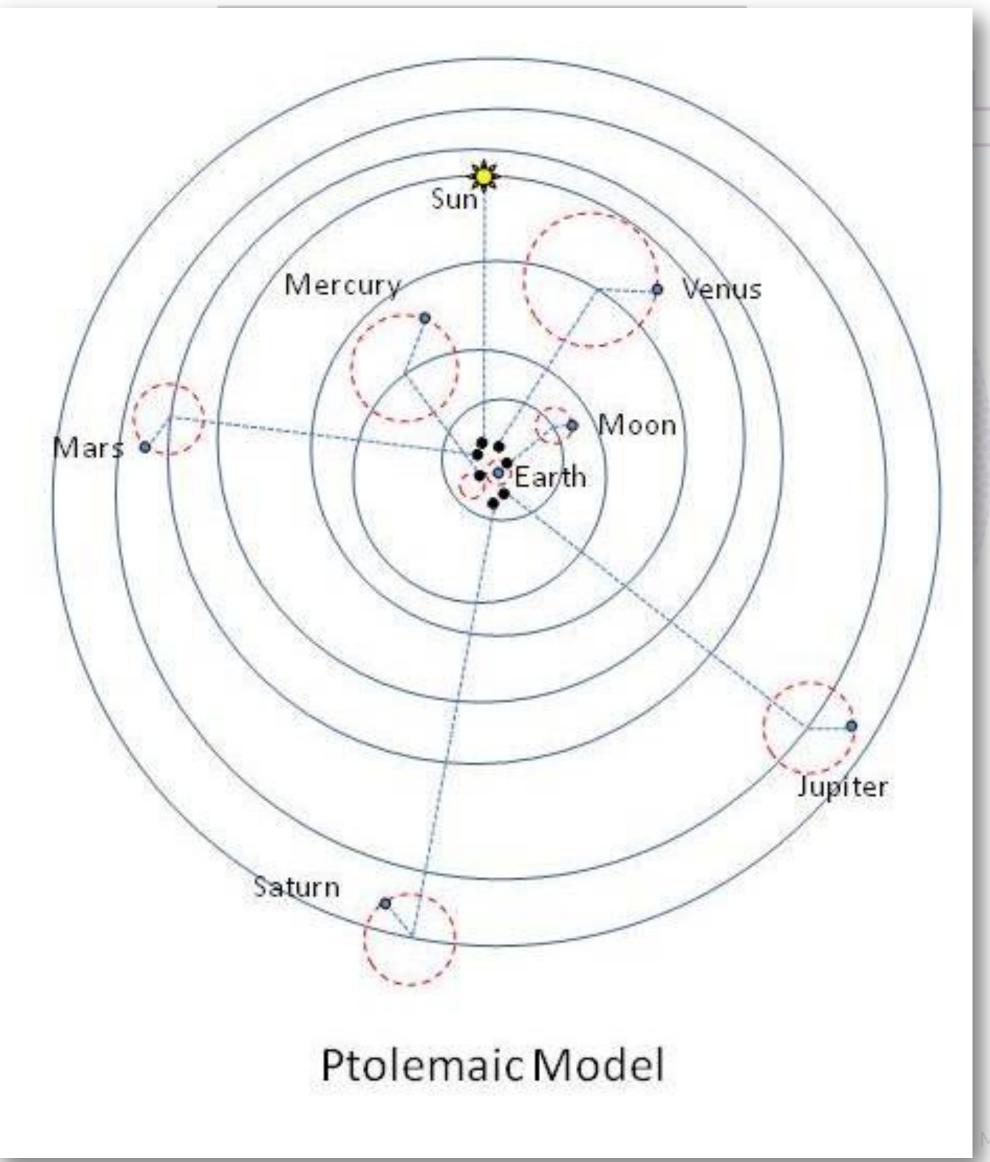




SKIN COLOUR







LTURAL Inheritance









A Theory Everyone

Michael

Muthukrishna



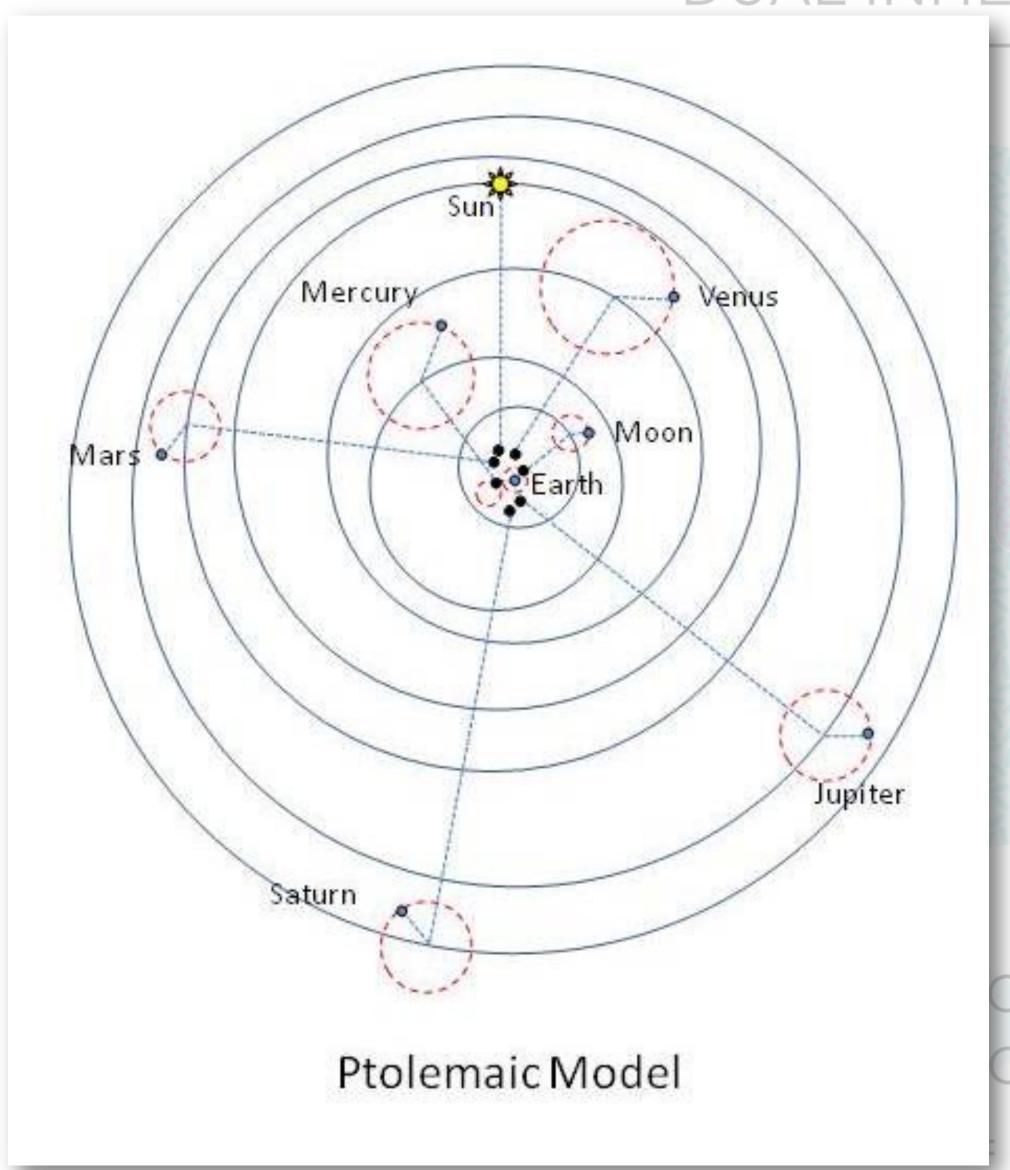






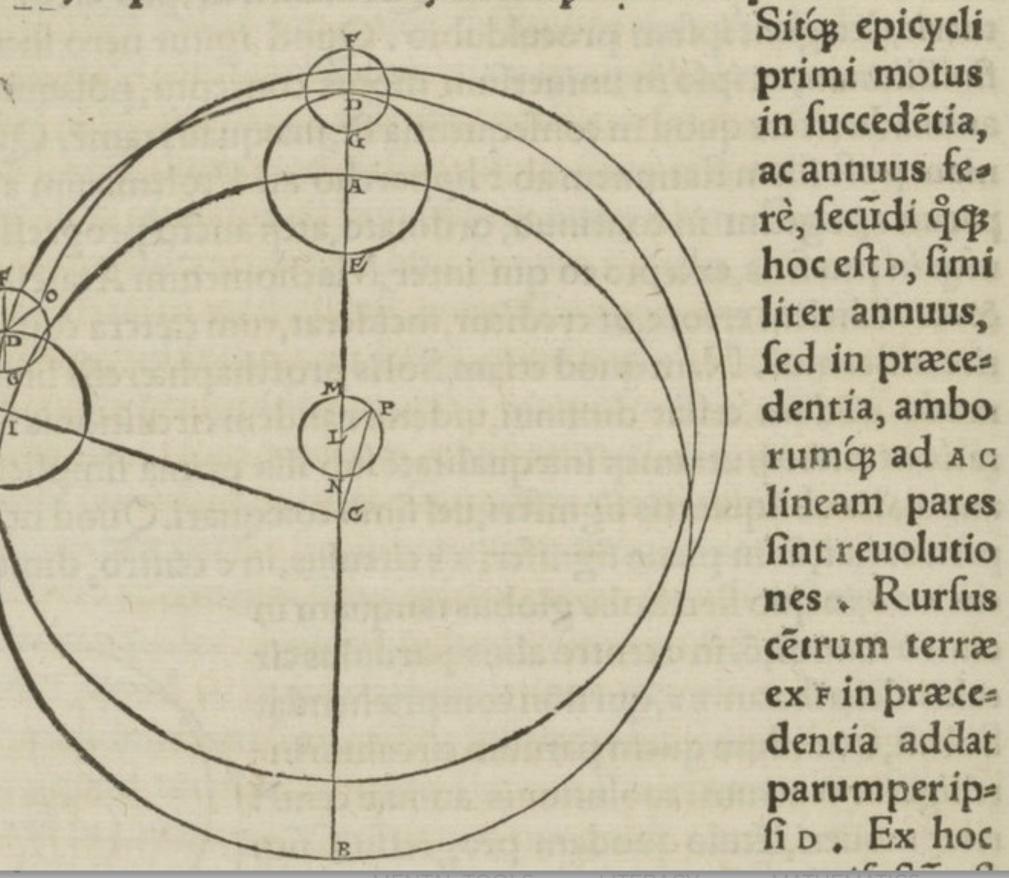


MATHEMATICS



NICOLAI COPERNICI

quoch epicyclum hoc modo. Sit mundo ac Soli homocentrus AB, & ACB diameter, in qua summa absis contingat. Et facto in a centro epicyclus describatur DB, ac rursus in D centro epicycli= um F G, in quo terra uersetur, omniacpin eodem plano zodiaci.



primi motus in succedetia, ac annuus fes hocesto, simi liter annuus, sed in præce= dentia, ambo rum'a ad A c lineam pares sint revolutio nes . Rursus cetrum terræ ex F in præce= dentia addat

A Theory of

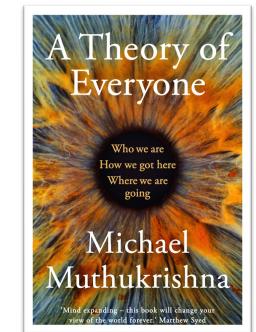
Everyone

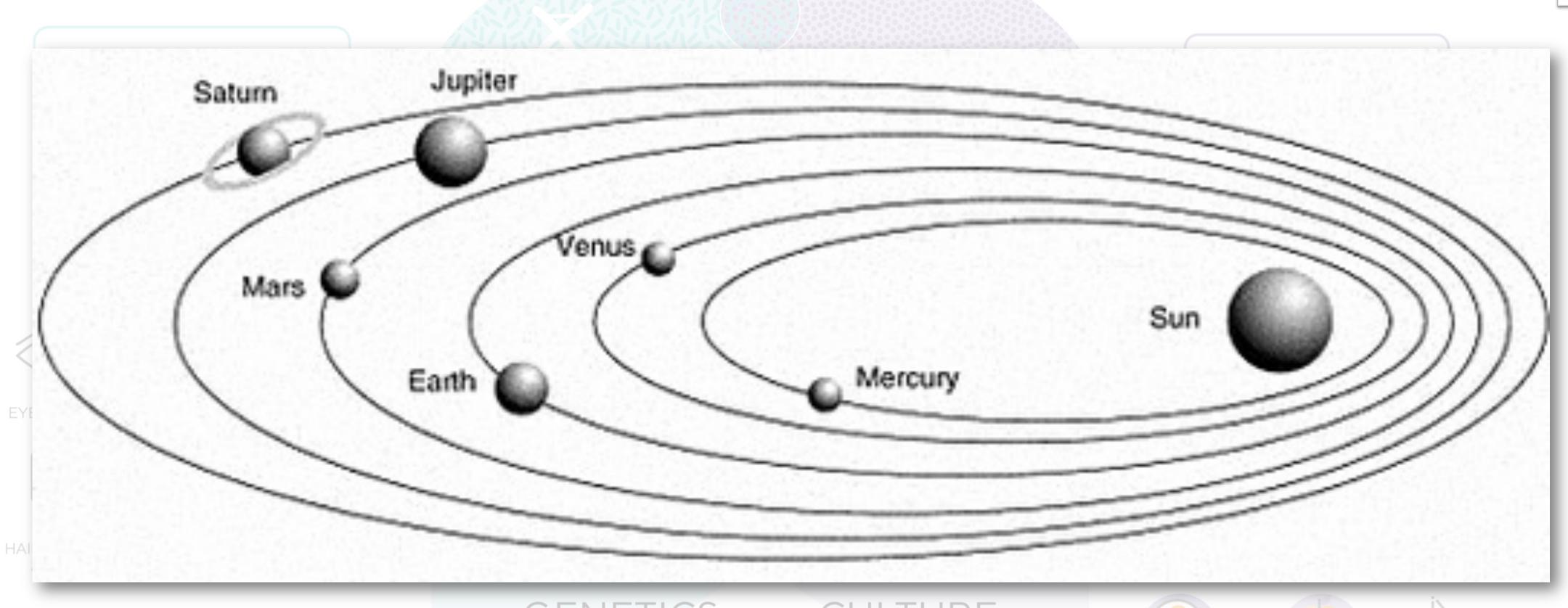
Who we are How we got here Where we are going

Michael
uthukrishna

d expanding - this book will change your
ow of the world forever.' Matthew Syed

CULTURAL Inheritance



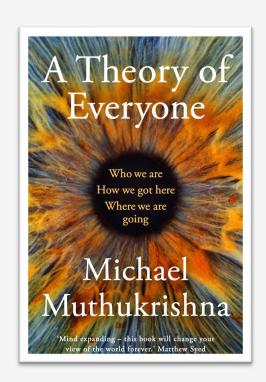


GENETICS X CULTURE = HUMAN







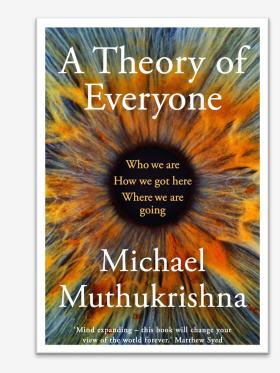


A cultura é o software de nossas mentes

Uchiyama, R., Spicer, R., & Muthukrishna, M. (2022). Cultural evolution of genetic heritability. *Behavioral and Brain Sciences* Henrich, J., & Muthukrishna, M. (2023) What makes us smart? *Topics in Cognitive Science*

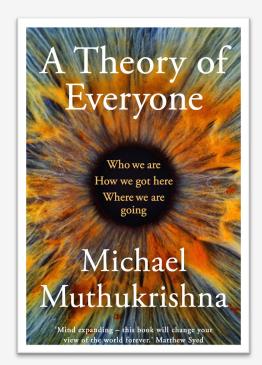
Davis, H. E., Henrich, J. & Muthukrishna, M. (2023). Formal education increases IQ Test Performance: Causal Evidence from a Natural Experiment in Namibia and Angola. *Working Paper*

Muthukrishna, M. (2023) A Theory of Everyone: The New Science of Who We Are, How We Got Here, and Where We're Going, MIT Press & Basic Books







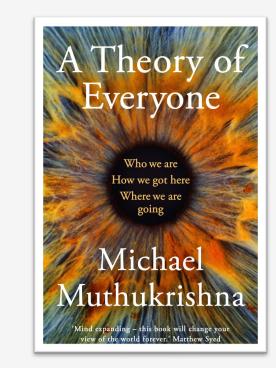


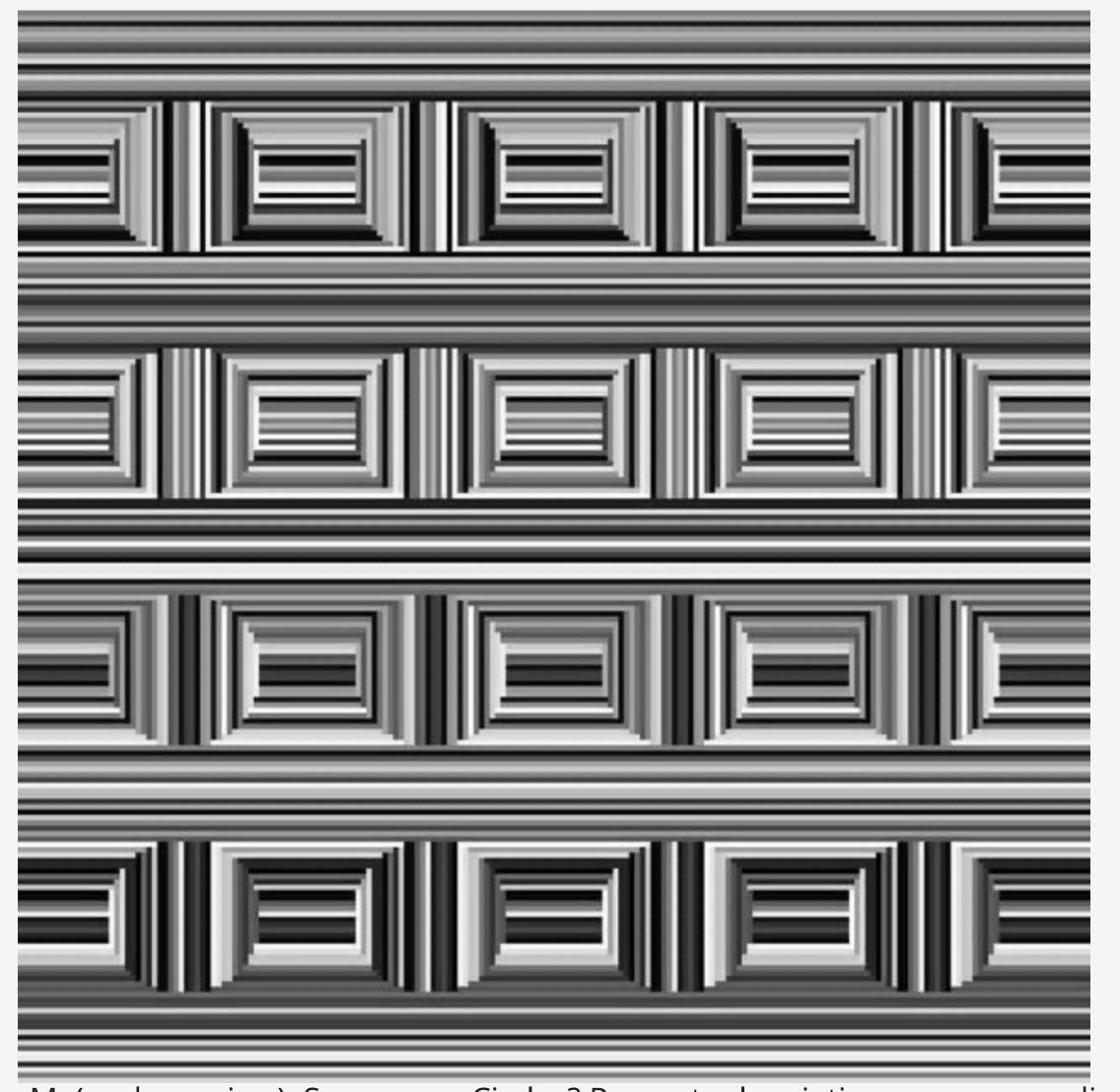






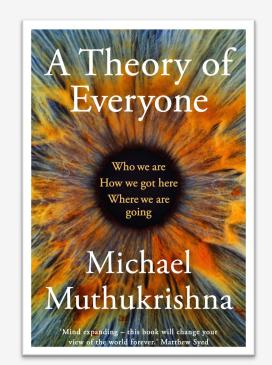


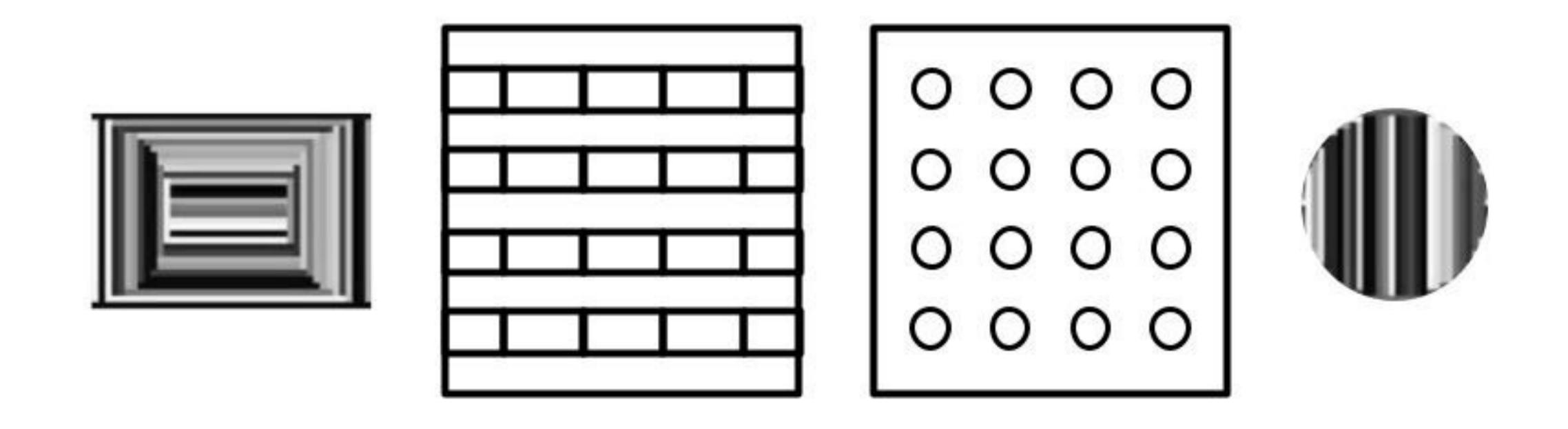






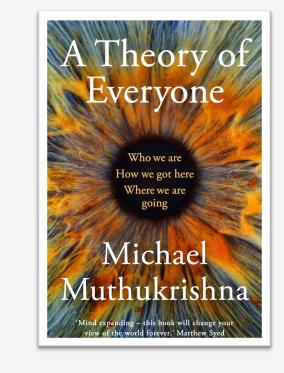








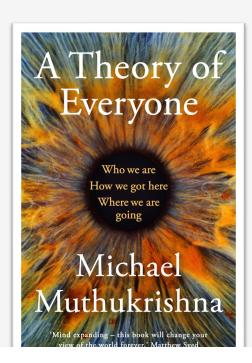








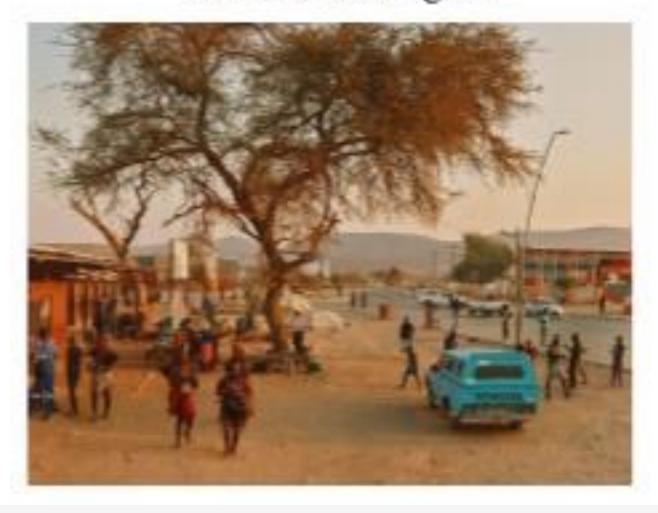




A. UK/US
Many 90° angles



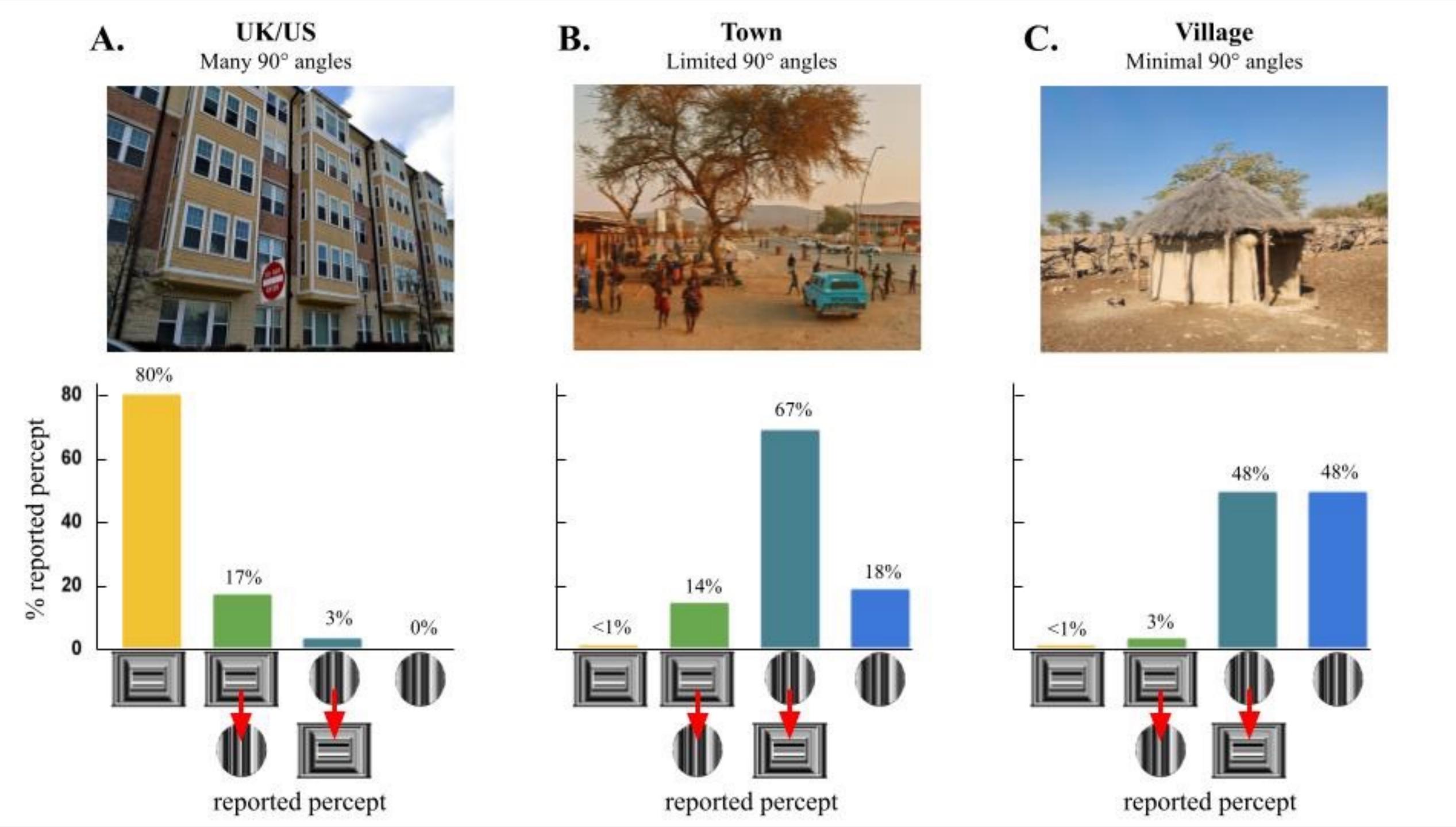
B. Town
Limited 90° angles

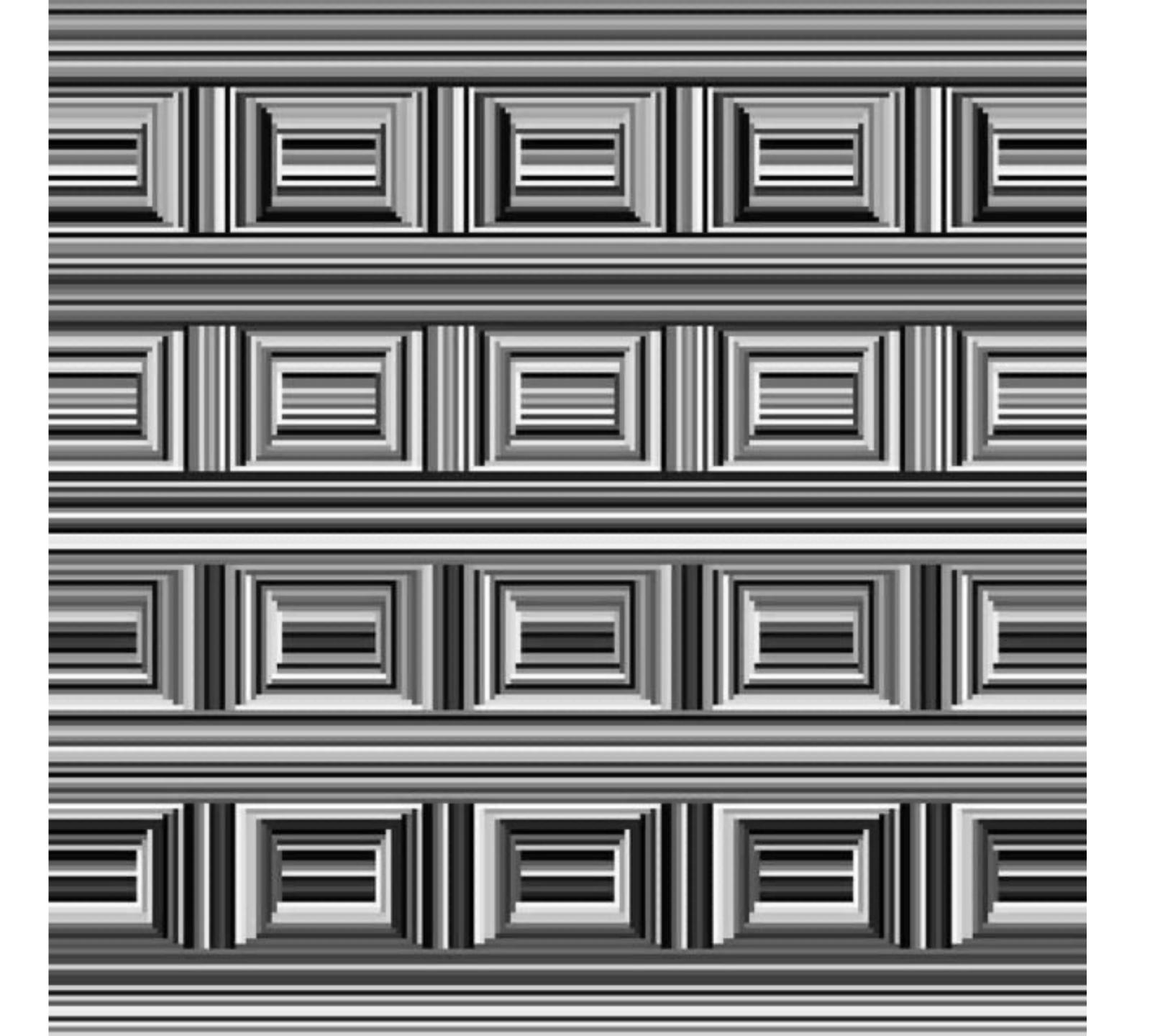


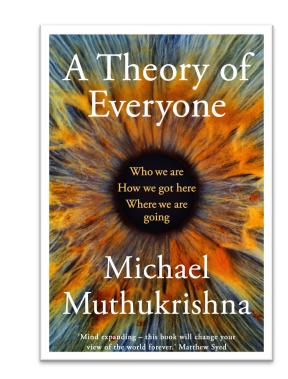
C. Village
Minimal 90° angles

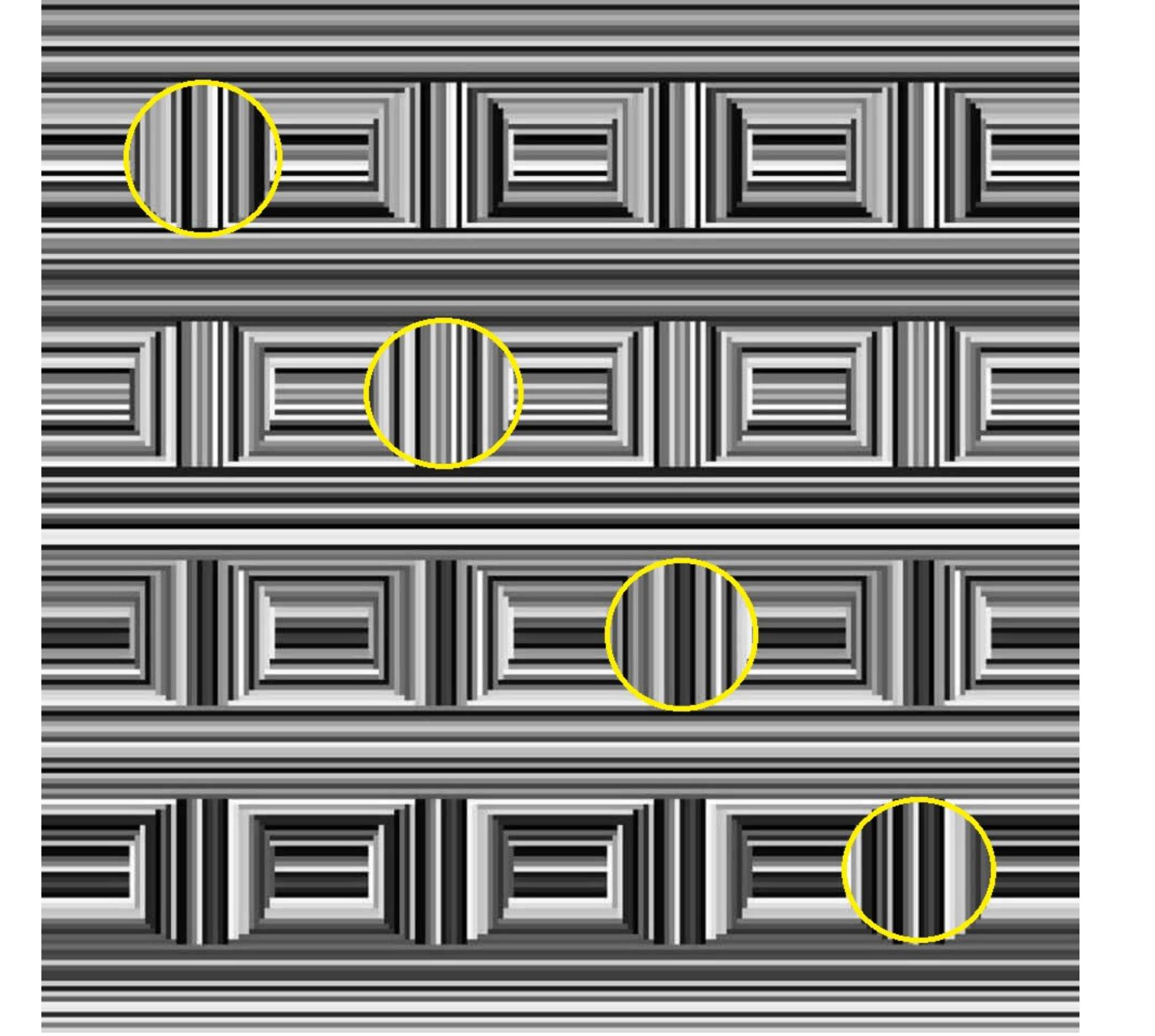


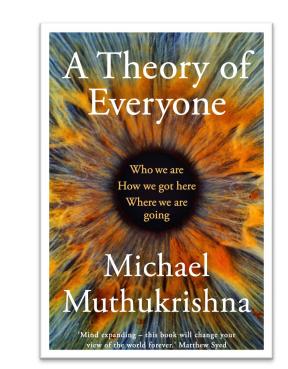




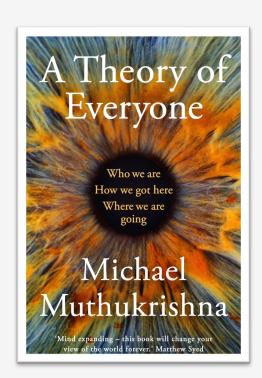












Nossa Inteligência está em nosso Software

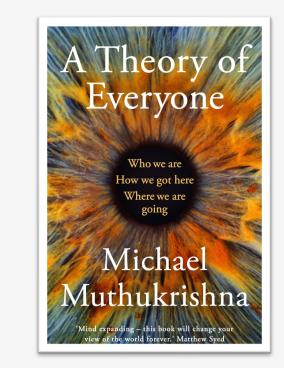
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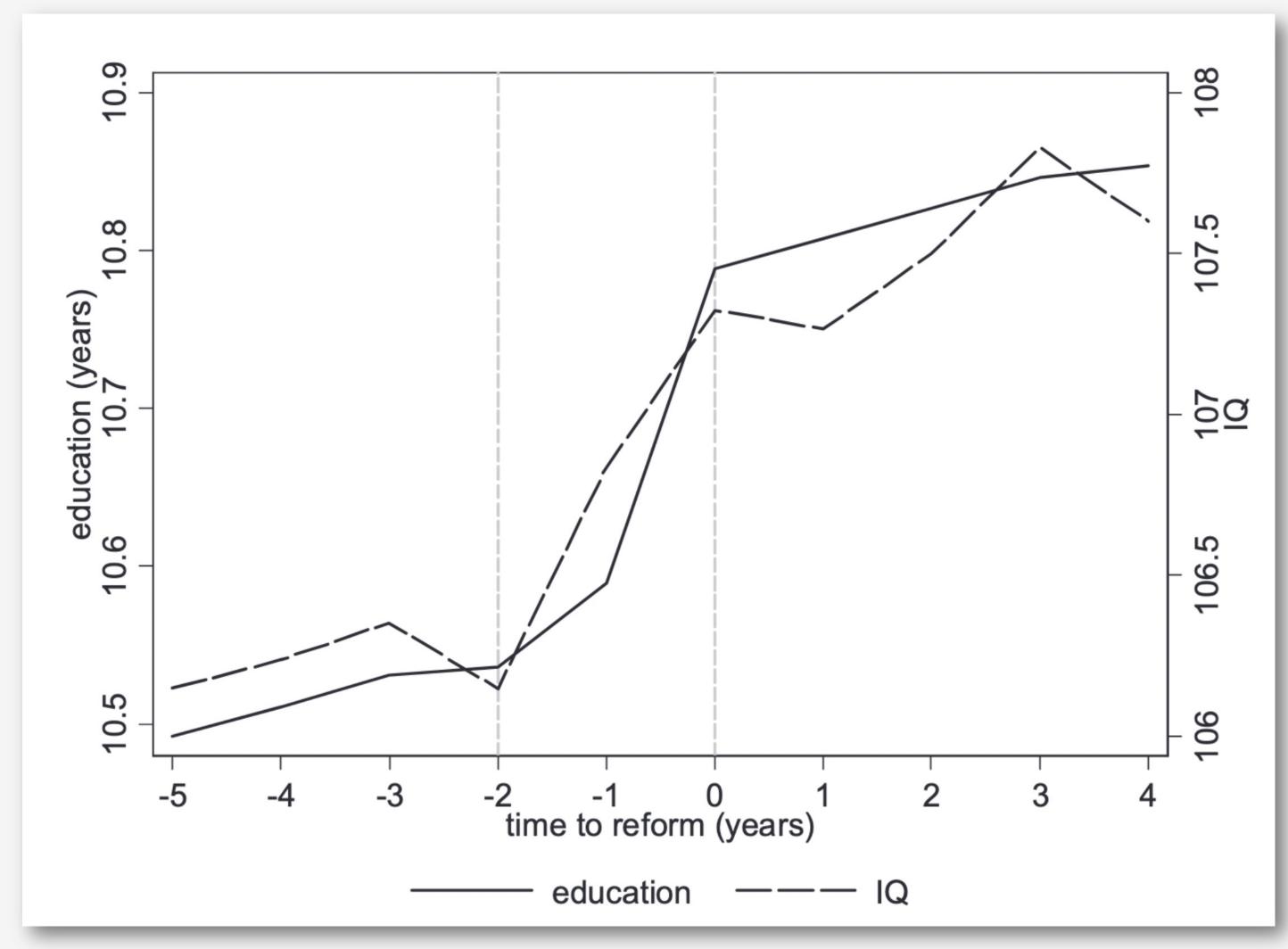
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O que nos torna inteligentes?







O que nos torna inteligentes?

How Much Does Education Improve Intelligence? A Meta-Analysis

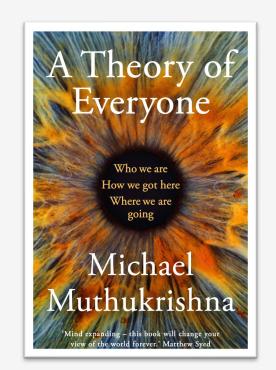


Stuart J. Ritchie^{1,2} and Elliot M. Tucker-Drob^{3,4}

¹Department of Psychology, The University of Edinburgh; ²Centre for Cognitive Ageing and Cognitive Epidemiology, The University of Edinburgh; ³Department of Psychology, University of Texas at Austin; and ⁴Population Research Center, University of Texas at Austin

Psychological Science 2018, Vol. 29(8) 1358–1369 © The Author(s) 2018 Article reuse guidelines: sagepub.com/journals-permissions DOI: 10.1177/0956797618774253 www.psychologicalscience.org/PS





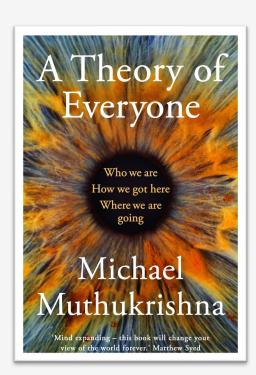
Abstract

Intelligence test scores and educational duration are positively correlated. This correlation could be interpreted in two ways: Students with greater propensity for intelligence go on to complete more education, or a longer education increases intelligence. We meta-analyzed three categories of quasiexperimental studies of educational effects on intelligence: those estimating education-intelligence associations after controlling for earlier intelligence, those using compulsory schooling policy changes as instrumental variables, and those using regression-discontinuity designs on school-entry age cutoffs. Across 142 effect sizes from 42 data sets involving over 600,000 participants, we found consistent evidence for beneficial effects of education on cognitive abilities of approximately 1 to 5 IQ points for an additional year of education. Moderator analyses indicated that the effects persisted across the life span and were present on all broad categories of cognitive ability studied. Education appears to be the most consistent, robust, and durable method yet to be identified for raising intelligence.

Brinch, C. N., & Galloway, T. A. (2012). Schooling in adolescence raises IQ scores. *Proceedings of the National Academy of Sciences* Ritchie, S. J., & Tucker-Drob, E. M. (2018). How much does education improve intelligence? A meta-analysis. *Psychological science*

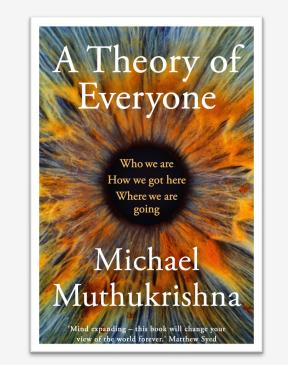


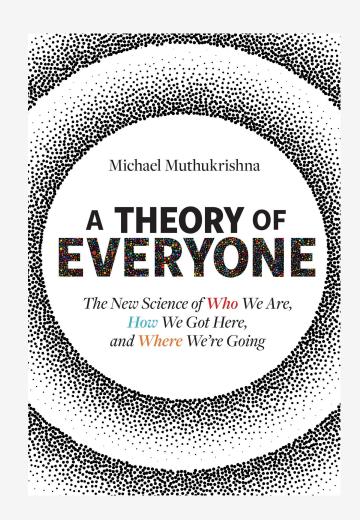
O que nos torna inteligentes?



present on all broad categories of cognitive ability studied. Education appears to be the most consistent, robust, and durable method yet to be identified for raising intelligence.



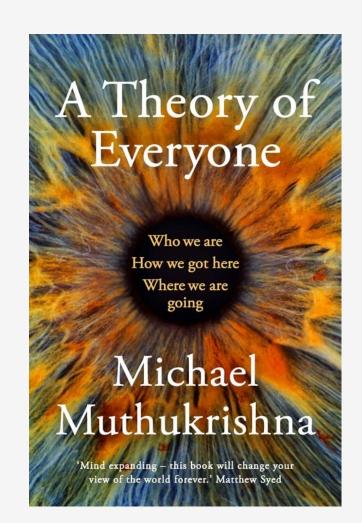




1, 2, 3, many...

I, II, III, IV, V, VI...



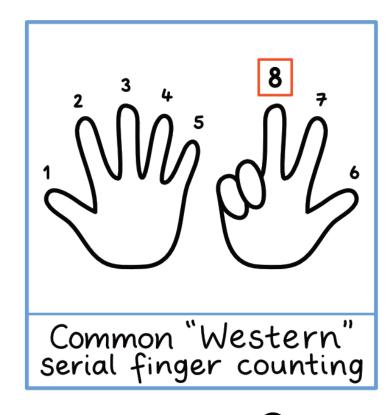


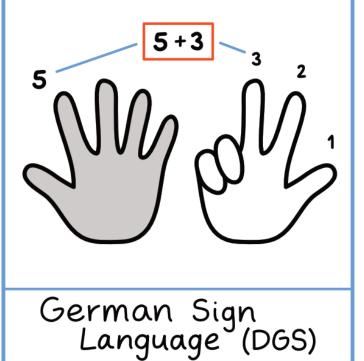


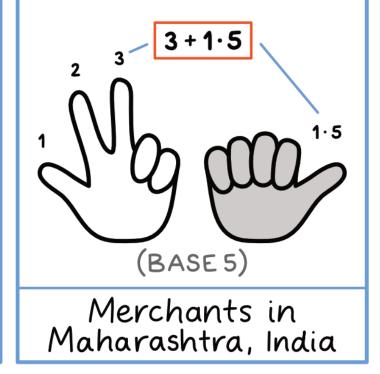
1, 2, 3, many...

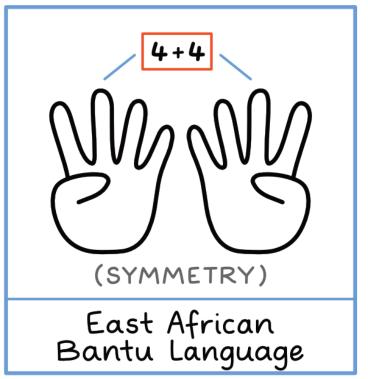
I, II, III, IV, V, VI...



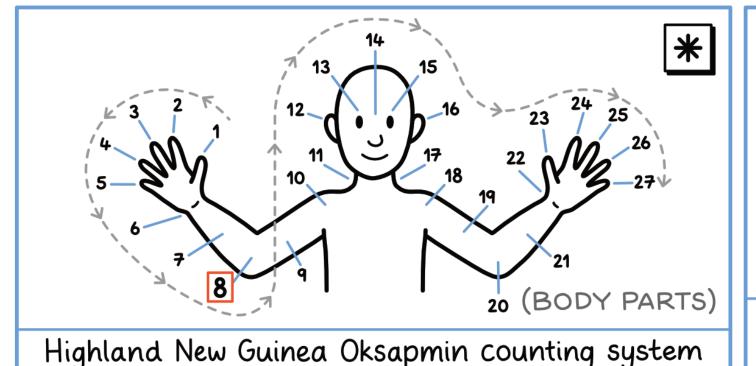


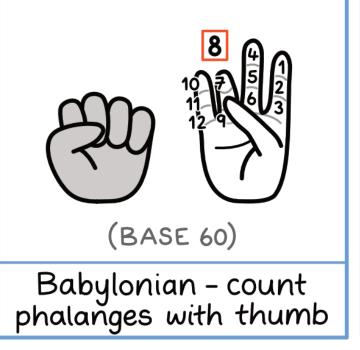


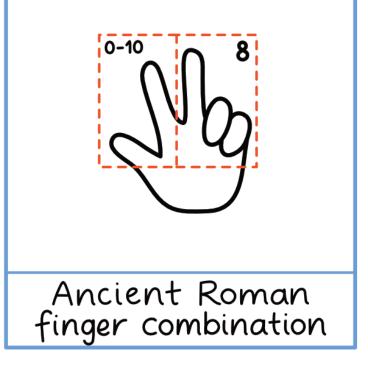




CULTURAL & HISTORICAL VARIABILITY DIFFERENT WAYS to SHOW the NUMBER [8] ~ in FINGER COUNTING





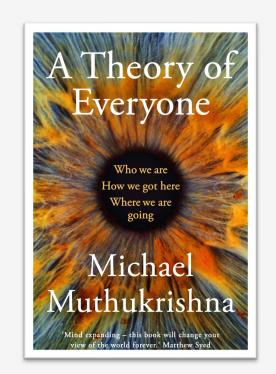


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based on BENDER & BELLER (2011) *based on MARMASSE et al. (2000)

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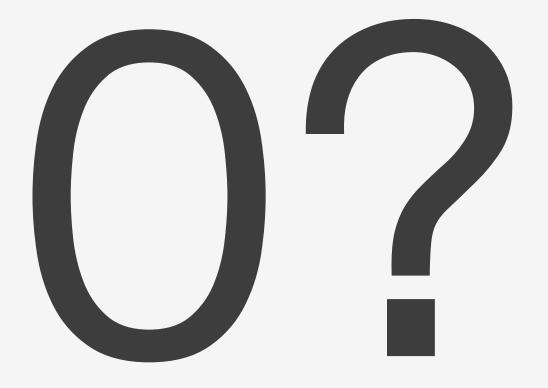




1, 2, 3, many...

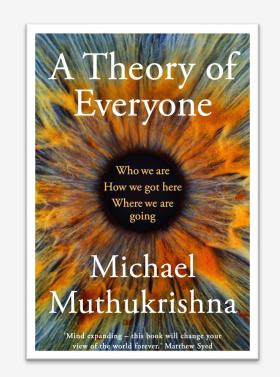
I, II, III, IV, V, VI...





Muthukrishna, M. (2023) A Theory of Everyone: Who We Are, How We Got Here, and Where Are We Going? MIT Press / Penguin Random House / Basic Books





1, 2, 3, many...

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I, II, III, IV, V, VI...

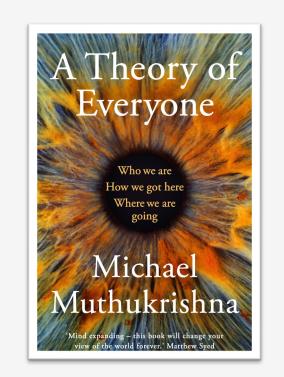


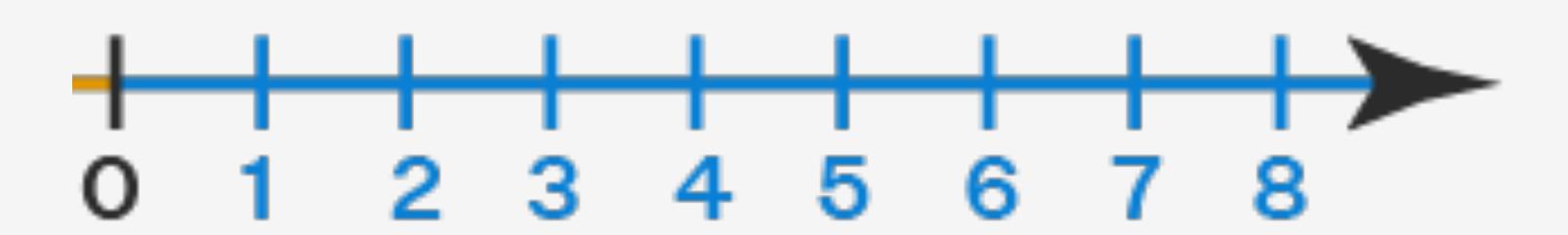
"Negative numbers darken the very whole doctrines of the equations..."

- FRANCIS MASÈRES, 1759

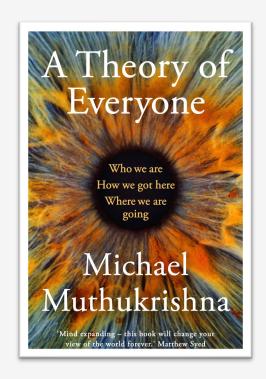
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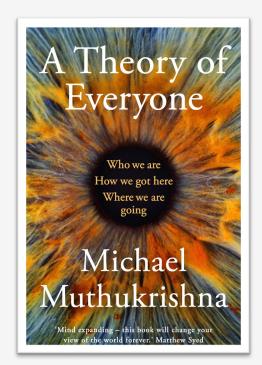










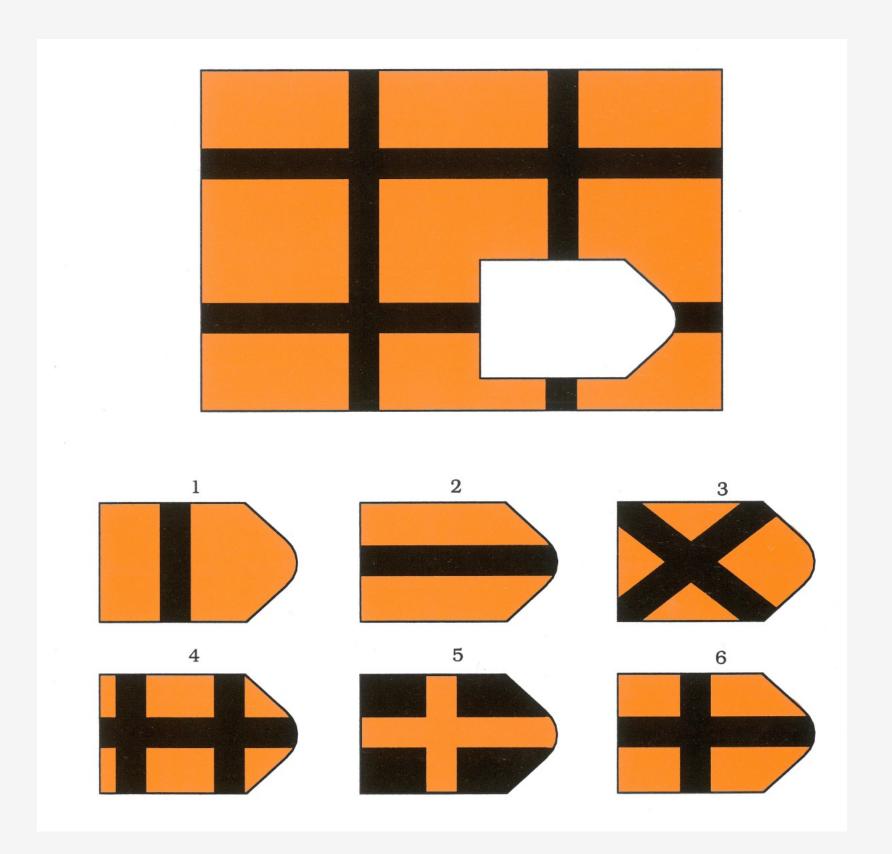


129 participants

Table 1: Descriptive statistics on key variables

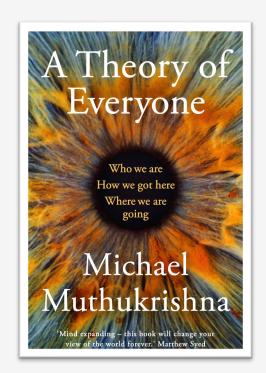
	No school			School			
Variable	N	Mean	SD	N	Mean	SD	Test
Age (years)	41	12.44	3.89	88	12.24	2.78	F = 0.112
Sex (0 = girls)	41			88			F = 0.021
Height (cm)	38	130.59	23.64	81	136.52	16.81	F = 2.45
Weight (kg)	39	40.07	32.23	81	31.93	10.65	F = 4.238**
$_{ m BMI}$	38	22.50	18.37	81	16.64	1.90	F = 8.144***
Siblings (total)	19	6.84	3.18	86	6.14	2.36	F = 1.205
School (grade)	5	1.20	2.68	23	3.74	2.26	F = 4.875**
Reading ability (0-5)	40	0.19	0.70	83	2.20	2.04	F = 36.77***
Arithmithic (0-3)	40	0.05	0.32	83	1.14	1.07	F = 39.267***
Reading comprehension (0-4)	40	0.00	0.00	83	0.88	1.46	F = 14.454***
RCPM (z score)	40	10.88	2.95	84	15.01	5.80	F = 18.067***
QT (z score)	26	11.35	6.53	63	21.89	8.28	F = 33.478***

Statistical significance markers: * p;0.1; ** p;0.05; *** p;0.01

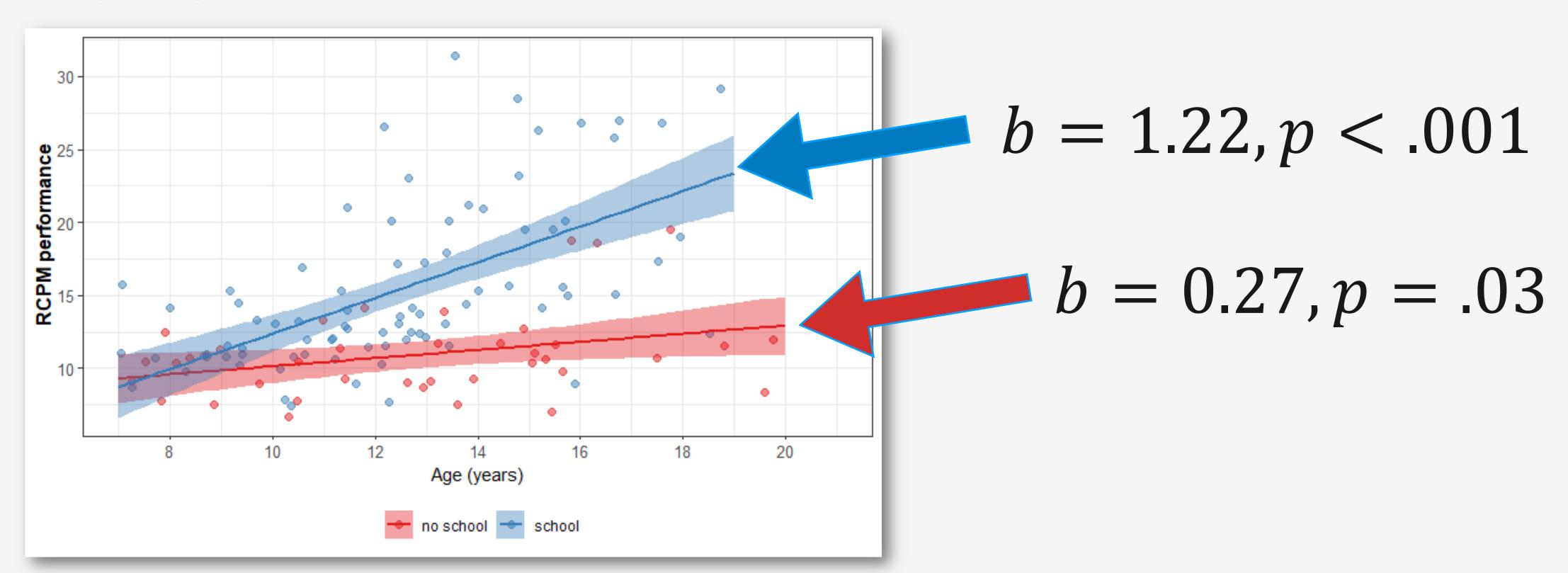








129 participants



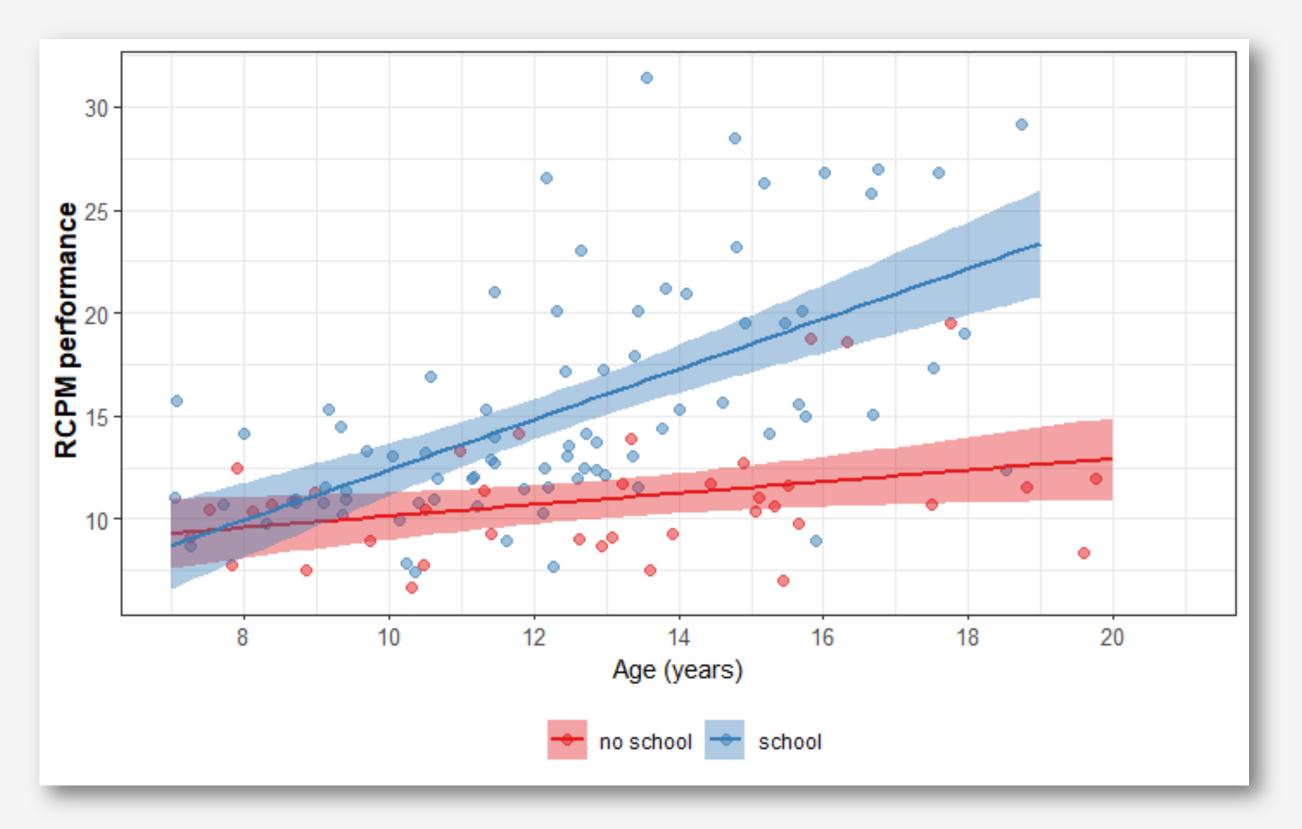


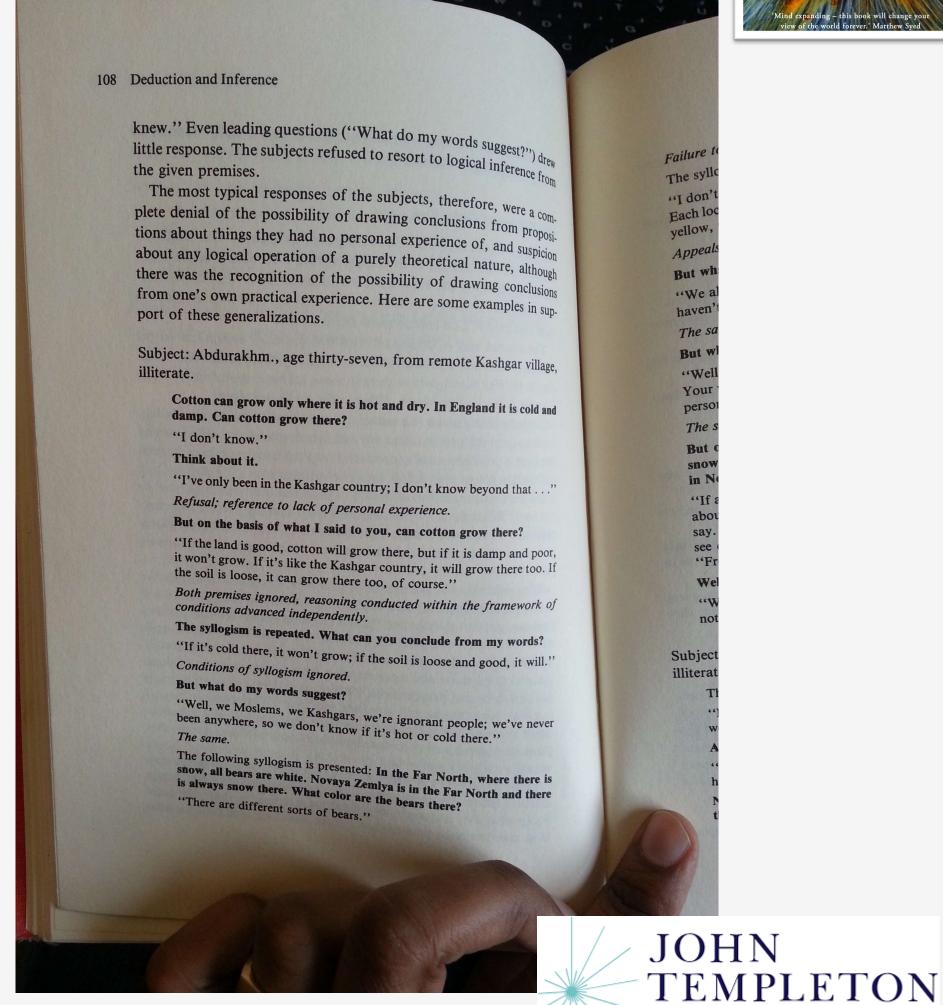


A Theory of Everyone Who we are How we got here Where we are going Michael Muthukrishna

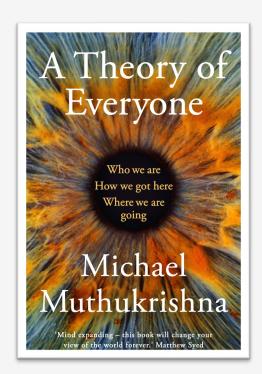
FOUNDATION

129 participants

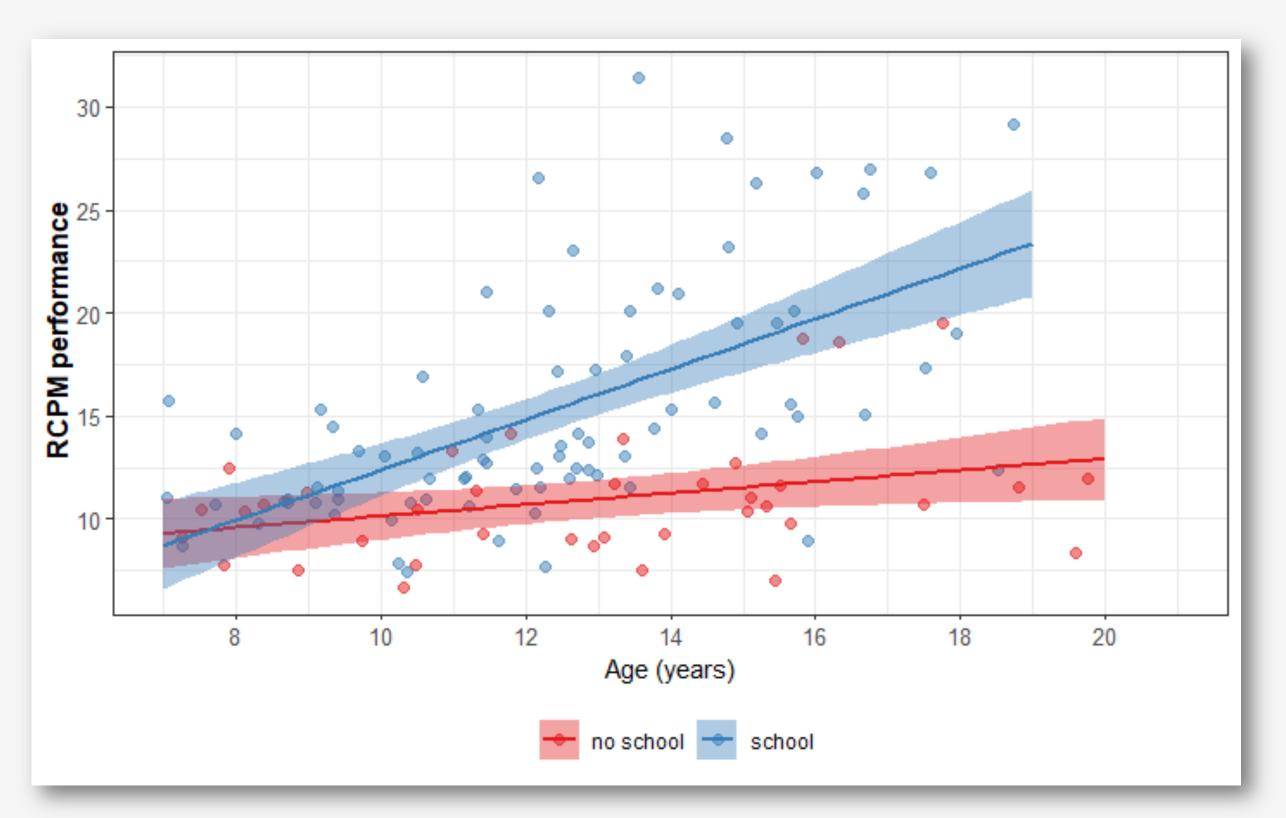








129 participants



Luria: "In the North, there is snow, and all bears are white. Novaya Zemlya is in the far North. What color are the bears there?"

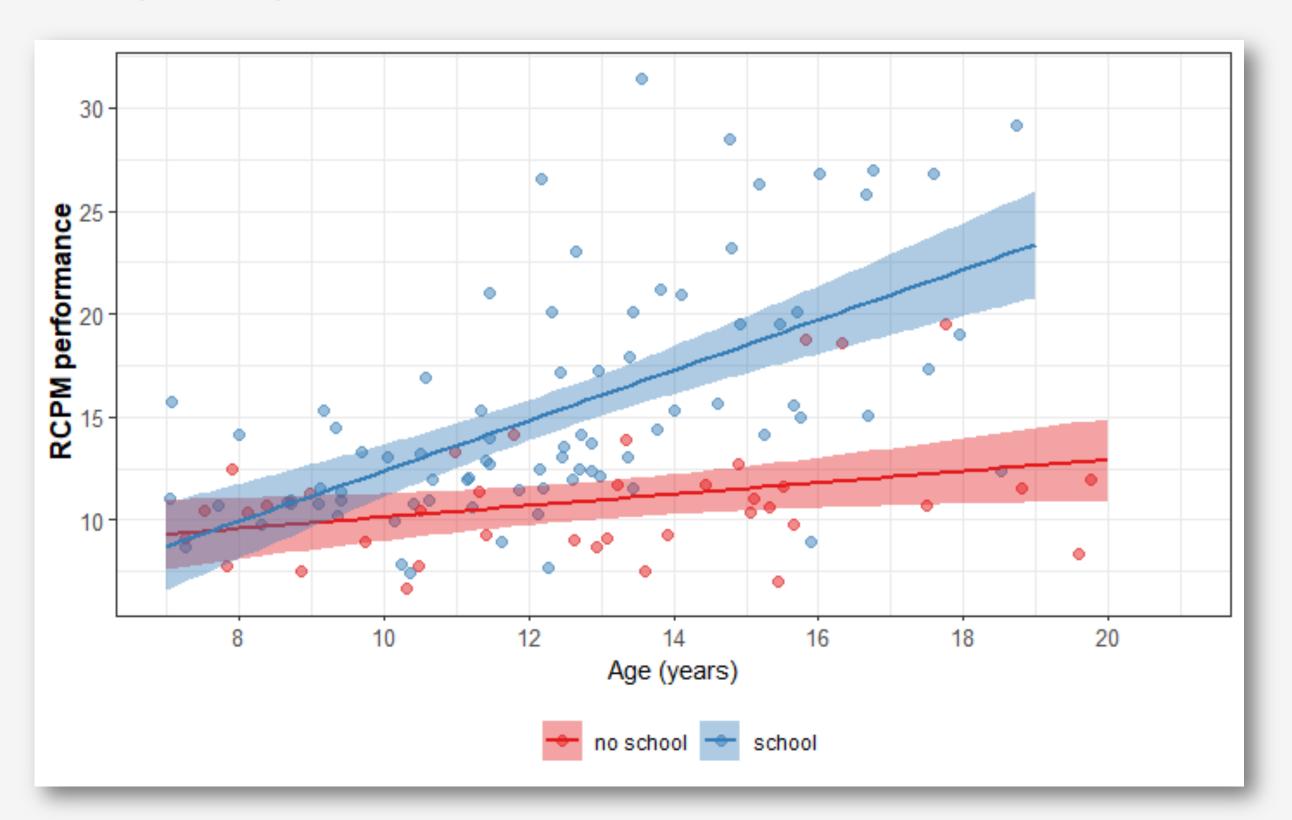
Peasant: "I don't know. I've never been to the far North. I saw a black bear here once."

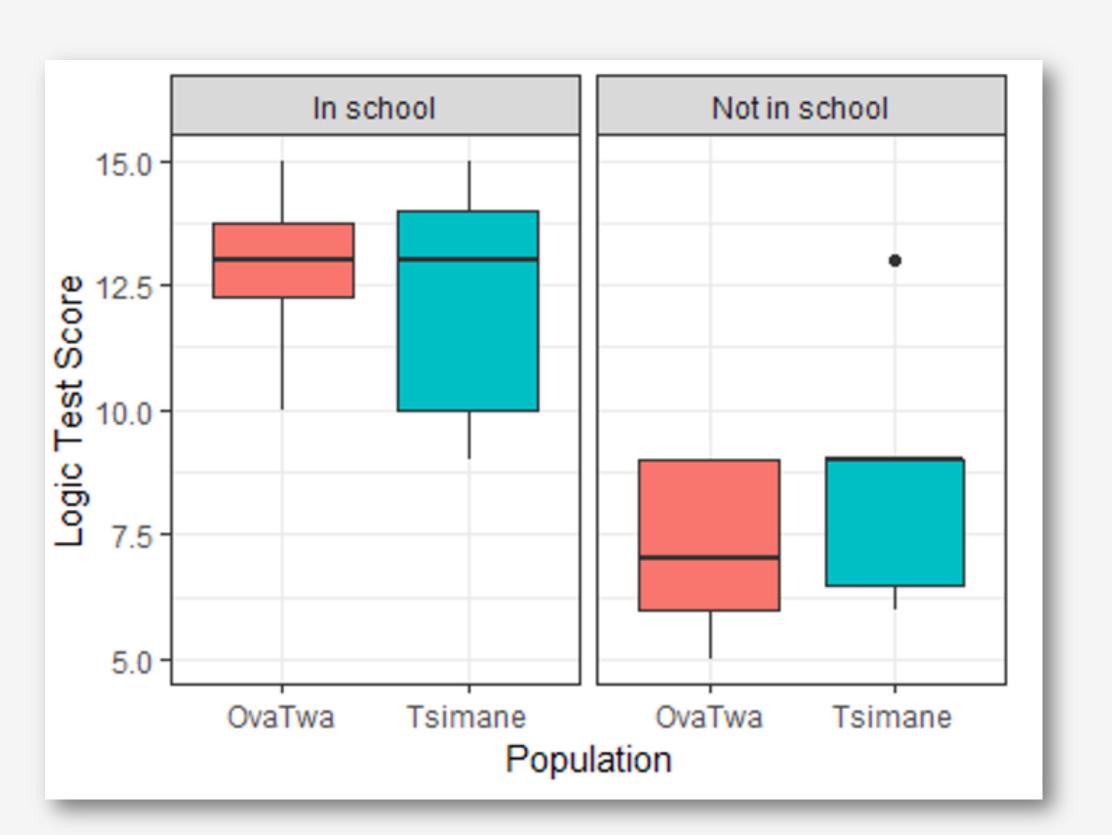






129 participants

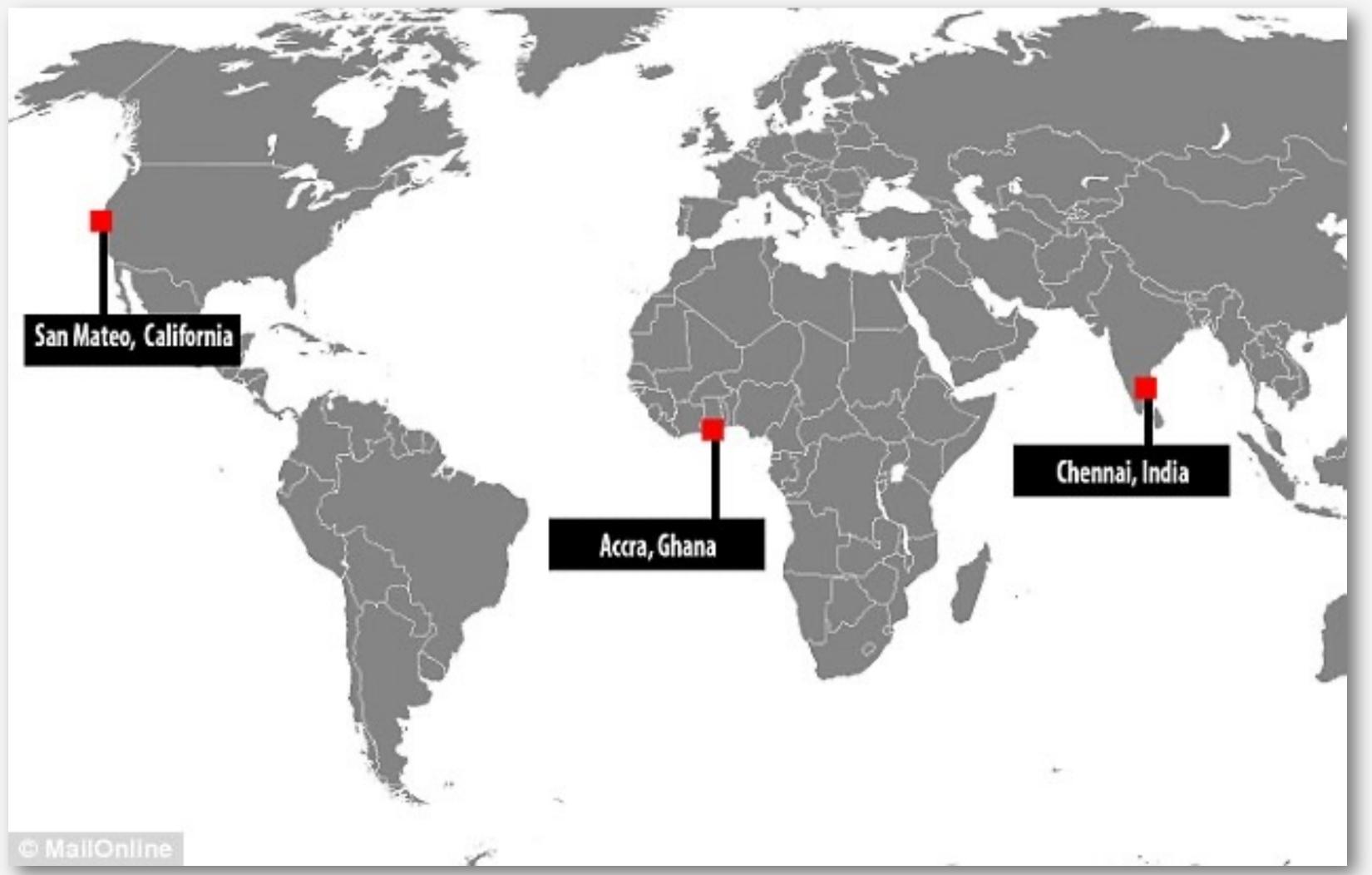








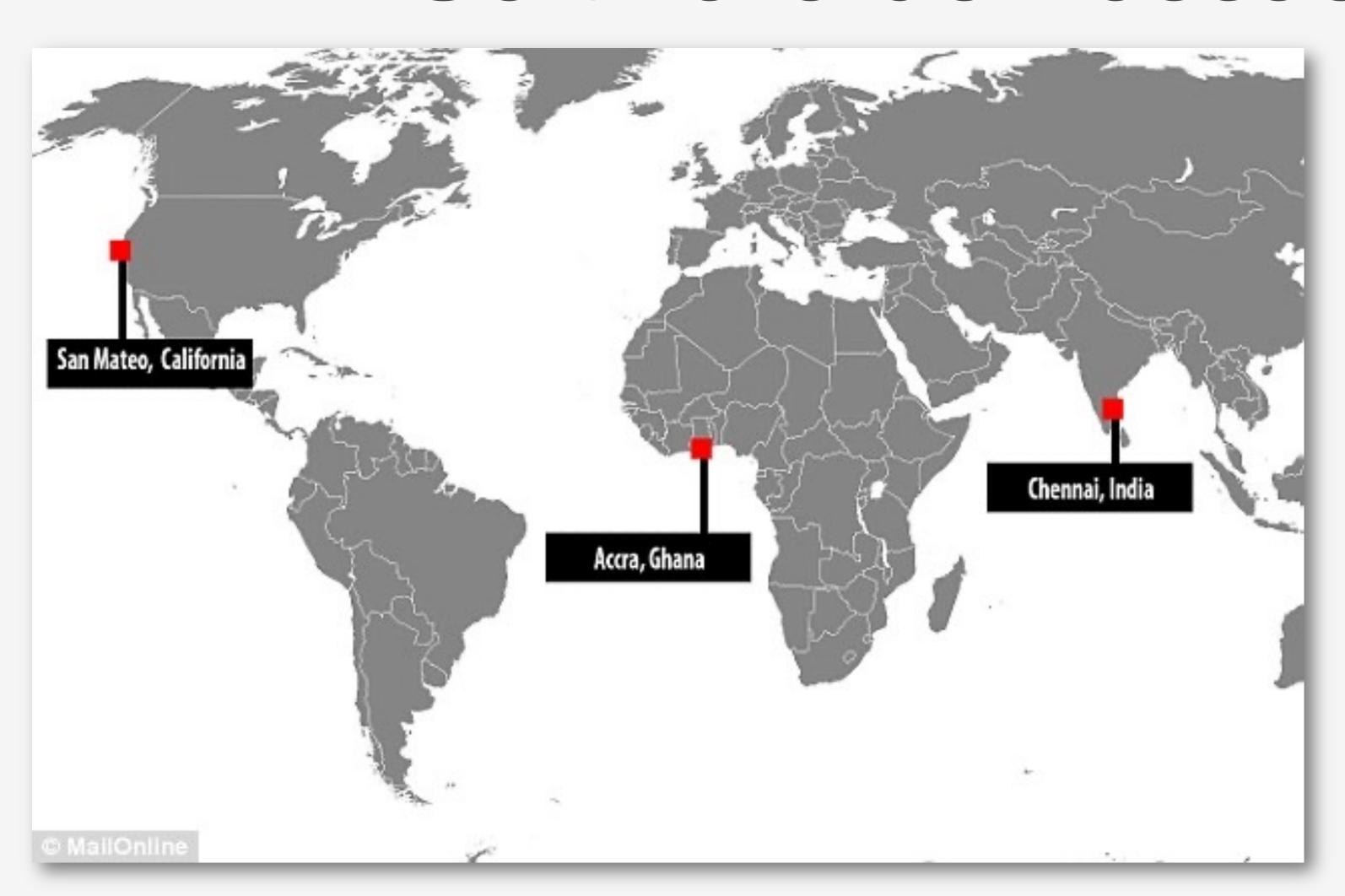


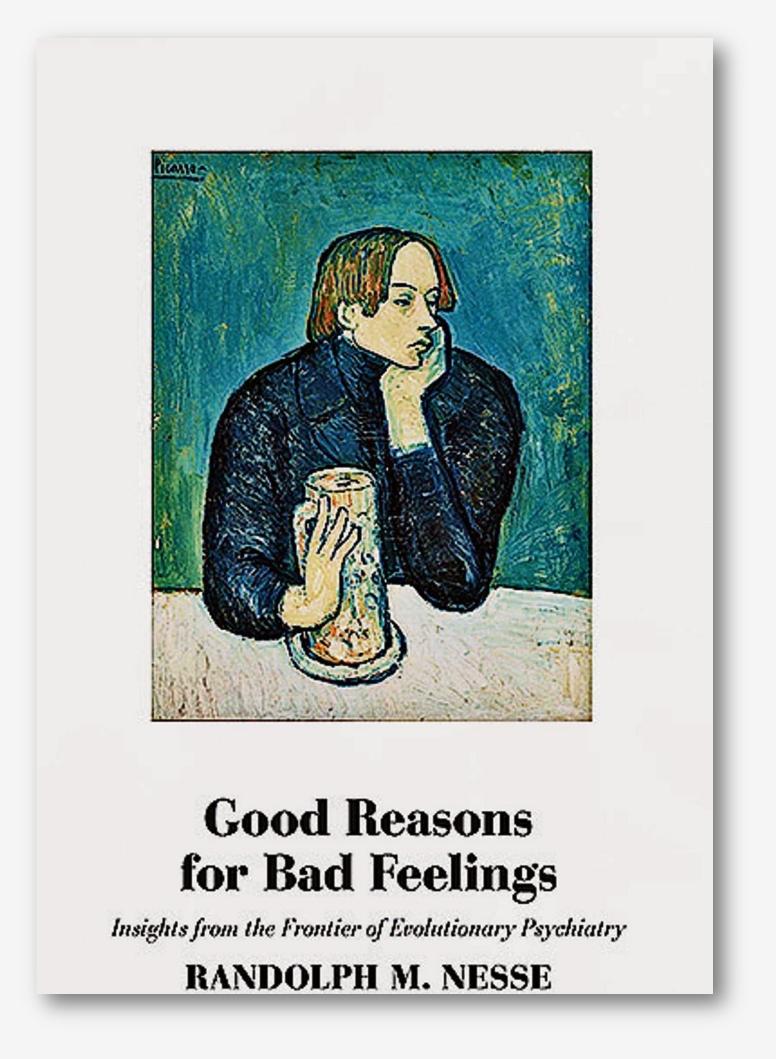


Luhrmann, T. M., Padmavati, R., Tharoor, H., & Osei, A. (2015). Hearing voices in different cultures: A social kindling hypothesis. *Topics in cognitive science*, 7(4), 646-663.





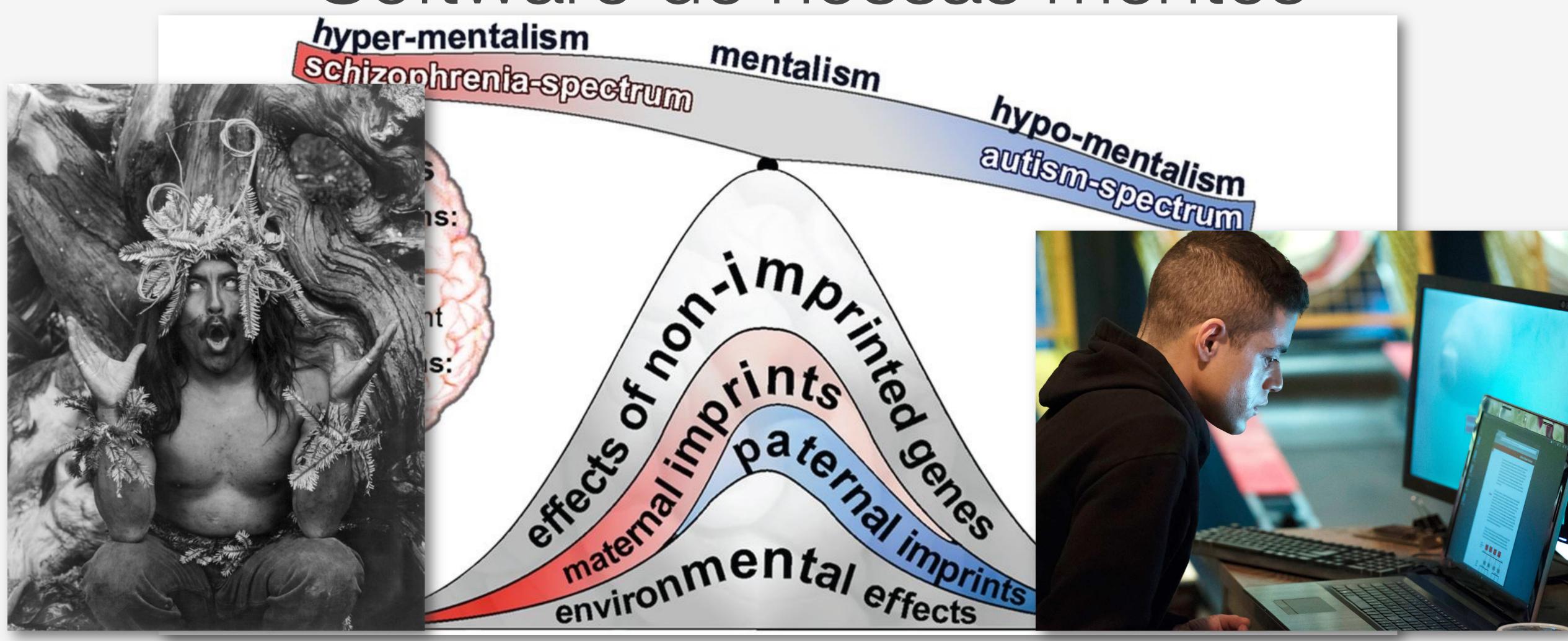




Luhrmann, T. M., Padmavati, R., Tharoor, H., & Osei, A. (2015). Hearing voices in different cultures: A social kindling hypothesis. *Topics in cognitive science*, 7(4), 646-663.







Byars, S. G., Stearns, S. C., & Boomsma, J. J. (2014). Opposite risk patterns for autism and schizophrenia are associated with normal variation in birth size: phenotypic support for hypothesized diametric gene-dosage effects. *Proceedings of the Royal Society B: Biological Sciences*





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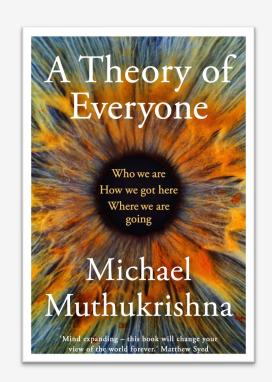
blue yellow red purple black





blue yellow red purple black

blue yellow red purple black



O que tudo isso significa na prática?

Uchiyama, R., Spicer, R., & Muthukrishna, M. (2022). Cultural evolution of genetic heritability. *Behavioral and Brain Sciences* Henrich, J., & Muthukrishna, M. (2023) What makes us smart? *Topics in Cognitive Science*

Davis, H. E., Henrich, J. & Muthukrishna, M. (2023). Formal education increases IQ Test Performance: Causal Evidence from a Natural Experiment in Namibia and Angola. *Working Paper*

Muthukrishna, M. (2023) A Theory of Everyone: The New Science of Who We Are, How We Got Here, and Where We're Going, MIT Press & Basic Books

NOSSO SOFTWARE É FLEXÍVEL NOSSO SOFTWARE PODE SER REESCRITO Modelos mentais são importantes A INOVAÇÃO É UM PROCESSO SOCIAL A IA PODE ACELERAR A EVOLUÇÃO CULTURAL





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'A fabulous book'

'Dense yet

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Where we are
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