Twitter Thread by Michael Muthukrishna

Michael Muthukrishna
@mmuthukrishna

■New paper on "Psychology as a historical science" w/ @JoHenrich & @slingerland20 in Annual Review of Psychology. Catalyzing the field of "historical psychology" by reviewing work on: origins of psychology and institutions today, psychology of the past (data from dead minds) 1/

Annual Review of Psychology

Psychology as a Historical Science

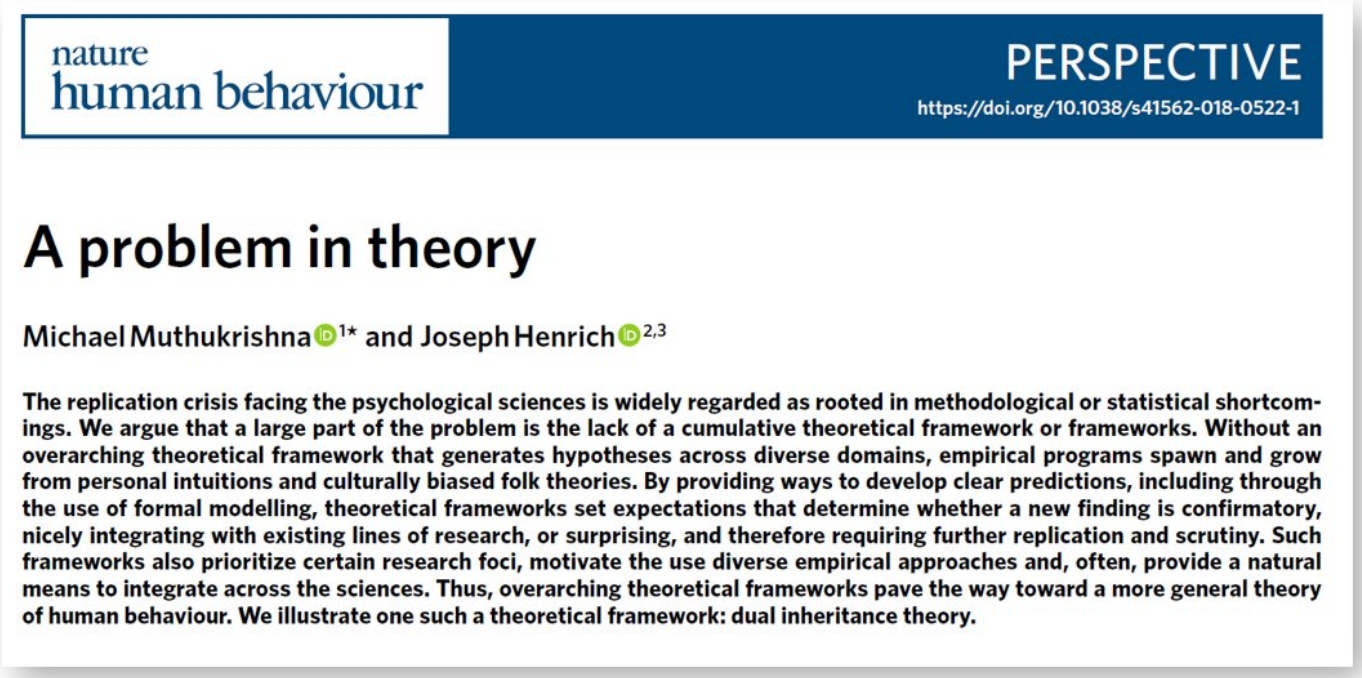
Michael Muthukrishna,[1] Joseph Henrich,[2] and Edward Slingerland[3]

[1]Department of Psychological and Behavioural Science, London School of Economics and Political Science, London WC2A 2AE, United Kingdom; email: m.muthukrishna@lse.ac.uk

[2]Department of Human Evolutionary Biology, Harvard University, Cambridge, Massachusetts 02138, USA; email: henrich@fas.harvard.edu

[3]Department of Asian Studies, University of British Columbia, Vancouver, British Columbia V6T 1Z3, Canada; email: edward.slingerland@ubc.ca

Our psychology is shaped by our societies, and our societies are shaped by their histories. We can do better than butterfly collecting--just measuring cross-cultural diffs. For psychology to develop a full theory of human behavior, we need historical psychology. 2/



nature human behaviour

PERSPECTIVE

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A problem in theory

Michael Muthukrishna[1*] and Joseph Henrich[2,3]

The replication crisis facing the psychological sciences is widely regarded as rooted in methodological or statistical shortcomings. We argue that a large part of the problem is the lack of a cumulative theoretical framework or frameworks. Without an overarching theoretical framework that generates hypotheses across diverse domains, empirical programs spawn and grow from personal intuitions and culturally biased folk theories. By providing ways to develop clear predictions, including through the use of formal modelling, theoretical frameworks set expectations that determine whether a new finding is confirmatory, nicely integrating with existing lines of research, or surprising, and therefore requiring further replication and scrutiny. Such frameworks also prioritize certain research foci, motivate the use diverse empirical approaches and, often, provide a natural means to integrate across the sciences. Thus, overarching theoretical frameworks pave the way toward a more general theory of human behaviour. We illustrate one such a theoretical framework: dual inheritance theory.

Psychology is shaped by millions of years of genetic evolution, thousands of years of cultural evolution, & a short lifetime of experience; yet, much of the field has focused on that short lifetime of experience. The WEIRD People Problem is not only about geography but history 3/

Past societies can be as culturally distant as distant societies. Cohort effects are a sliver of the cross-temporal variation we would expect in a culturally evolving species. History serves as a kind of psychological fossil record, a source of "data from dead minds". 4/

We (1) review work in historical psychology; (2) introduce methods including causal inference & how to extract data from dead minds; (3) explore the role of theory in mapping history to psychology; and (4) provide some conclusions concerning the future of this field. 5/

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E.g.s: Religious evolution & social psych. Some gods gained the ability to see into hearts & control an afterlife contingent on compliance. In many large-scale societies, these gods became omniscient, omnipotent, & omnibenevolent, coevolving with the scale of their societies. 6/

This historical theory makes predictions not only about expected relationships in the historical record but also about expected contemporary cross-cultural diversity in religious beliefs and cognition. In doing so, the theory links historical psychology to cultural psychology. 7/

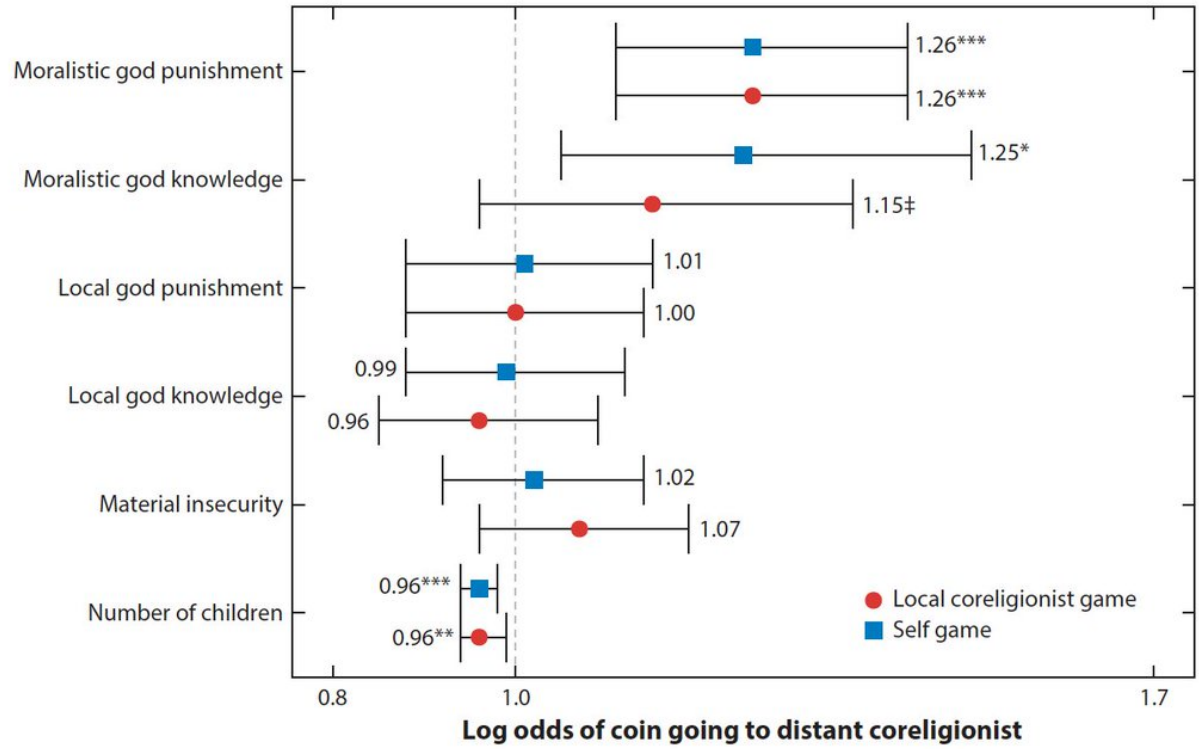


Figure 1

Effects of divine punishment and monitoring on allocations to distant coreligionists in the random allocation game for both the self and local coreligionist games. These odds ratios are derived from a multilevel binary logistic regression in which the allocation of each coin to one of the two cups is regressed on a battery of predictors. The models include fixed effects for each population and, at the individual level, controls for age, sex, number of children, household size, material insecurity, and emotional closeness to the recipient. One asterisk indicates $P \leq 0.05$; two asterisks indicate $P \leq 0.01$; three asterisks indicate $P \leq 0.001$; a double dagger indicates $P \leq 0.15$. Data from Purzycki et al. (2016).

WEIRD Psychology may have its origins in suppressing kin networks, changing family structures, & related via one particular religion: The Catholic Church 8/

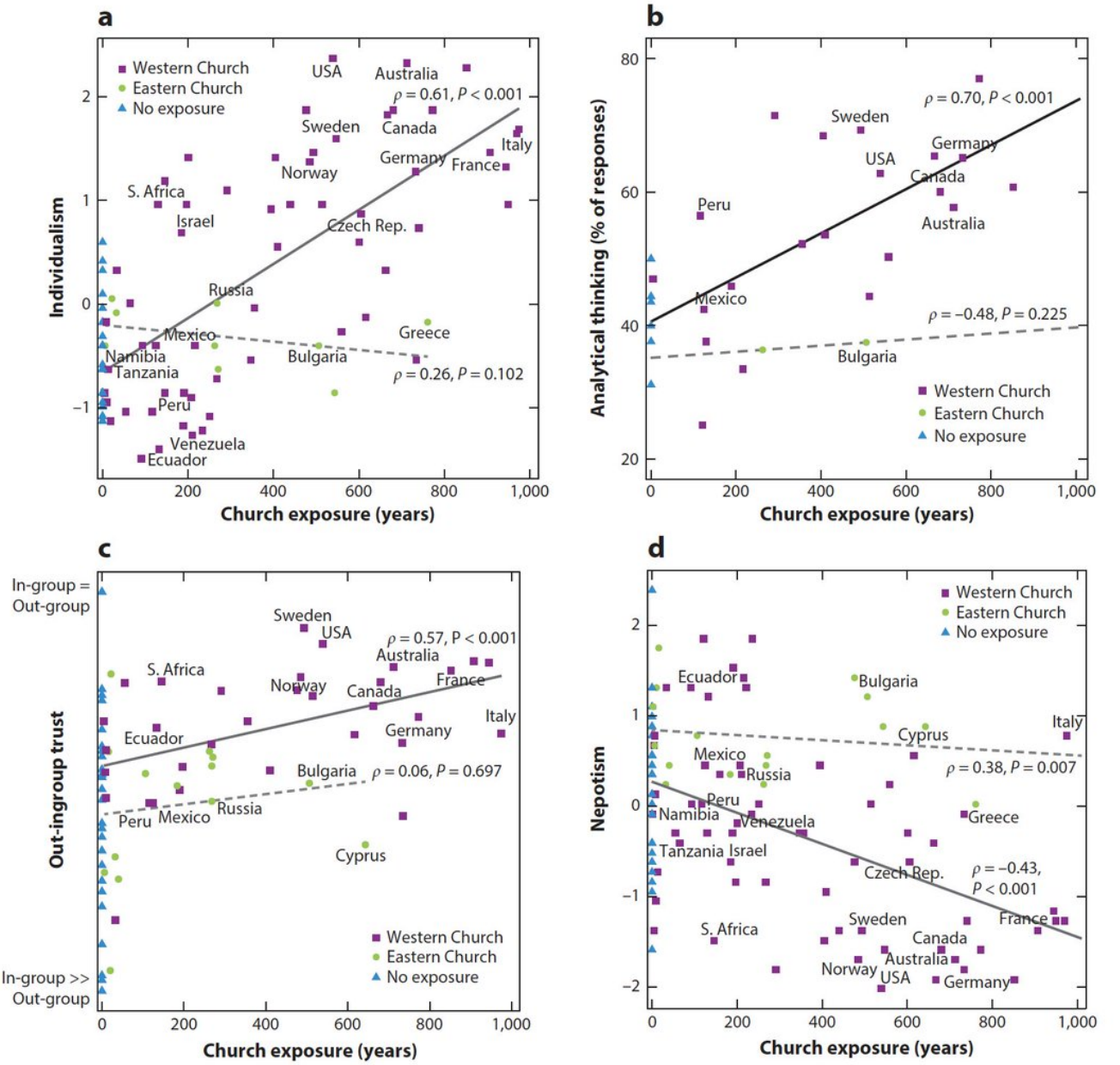


Figure 2

The contemporary cross-national relationships between Church exposure, measured in years, and four different psychological outcomes: (*a*) Hofstede's individualism measure, (*b*) analytic thinking (assessed using triads), (*c*) out-group versus in-group trust (based on six World Values Survey questions), and (*d*) nepotism (based on interviews of executives at the World Economic Forum on hiring relatives). The solid gray lines represent Spearman correlations for the Western Church; the dashed gray lines represent Spearman correlations for the Eastern Church. Data from Schultz et al. (2019).

Institutions rest on invisible cultural and psychological pillars. E.g. a constitution's proclamations are irrelevant without a belief in the rule of law, or norms of punishment for violations of this rule. 9/



We discuss the importance of causal inference techniques in historical psychology: instrumental variables, difference-in-differences, regression discontinuity. Some e.g. use for slavery & trust in strangers; agriculture & sex diff, gender inequality, collectivism; personality 10/

CAUSAL INFERENCE TECHNIQUES

Correlation can equal causation, at least with some caveats. Lacking the ability to conduct laboratory or field experiments, historical psychologists require additional tools to identify the historical causes of psychological change and variation. Instrumental variables, difference-in-differences, and regression discontinuities are just a few examples of statistical approaches that make it possible to argue for causality based on correlational data (Angrist & Pischke 2009, Pearl & Mackenzie 2018, Pearl et al. 2016). Although many of these causal identification techniques are not commonly used or taught within psychology today (perhaps due to the dominance of the laboratory experimental paradigm), they have a long history within psychology (e.g., Shadish et al. 2001); indeed, the regression discontinuity design for the analysis of natural experiments created by a geographic or temporal separation was first developed by psychologists Thistlethwaite & Campbell (1960). Within psychology, a common source of temporal regression discontinuities are educational policies with inclusion criteria that separate similar people for arbitrary reasons (e.g., date of birth determines schools' start dates and can separate those born days apart into different cohorts). This particular policy allowed for identifying effects of relative age on ADHD diagnoses (Layton et al. 2018). Similarly, a policy that increased years of compulsory schooling for Norwegian children allowed for the identification of the effects of education on IQ (Brinch & Galloway 2012).

Historical psychology includes the psychology of the past - data from dead minds, cognitive archeology. Historical databases are emerging. But sometimes the data is qualitative requiring tools like text analysis. 11/

Table 1 Examples of structured historical databases relevant to historical psychology[a]

Database	Common name	URL	Type of data	Current content
eHRAF World Cultures	eHRAF	**http://ehrafworldcultures.yale.edu**	General culture (ethnographic)	Ethnographic documents related to 320 cultures are subject-coded at the paragraph level to facilitate searching.*
eHRAF Archaeology	eHRAF	**http://ehrafarchaeology.yale.edu**	General culture (archeological)	Archaeological documents related to 102 archaeological traditions are subject-coded at the paragraph level to facilitate searching.*
Database of Religious History	DRH	**http://religiondatabase.org**	Religion	397 entries on religious groups or places from 195 experts or research assistants are provided, with coded responses to poll questions.*
Pulotu Database of Pacific Religions	Pulotu	**http://pulotu.shh.mpg.de**	Religion	116 Austronesian cultures are coded for 62 variables related to religion, history, society, and the natural environment.
Seshat: Global History Databank	Seshat	**http://seshatdatabank.info**	General culture	Historical, political, economic, and religious variables are coded for 30 natural geographic areas around the world.*
Grambank	Grambank	**http://grambank.clld.org**	Grammar	195 structural features are coded for over 1,400 languages.*
Database of Places, Language, Culture and Environment	D-PLACE	**http://d-place.org**	Culture, environment, language	Cultural, linguistic, environmental, and geographic information is coded for over 1,400 human societies.
World Atlas of Language Structures	WALS	**http://wals.info**	Language	This is a large database of structural (phonological, grammatical, lexical) properties of languages gathered from descriptive materials (such as reference grammars).
The Natural History of Song	NHS	**http://osf.io/jmv3q**	Music	NHS Ethnography contains 50 variables coded from eHRAF for 60 human cultures; NHS Discography contains 40 variables coded from field recordings from 86 societies.

Asterisk indicates that the content is expanded annually.
[a]Data from Slingerland et al. (2020).

We discuss some examples of the importance of theory. A society has codependent norms, values, beliefs, behaviors, and institutions. If one takes an exploratory approach and looks for correlations in history, there are many to be found. Theory helps clarify causality. 12/

Collaboration between psychologists, historians, and other humanities scholars is important (see https://t.co/3yapB0NbaI for an e.g.). We discuss challenges & strategies. 13/

Just as it is useful to reach out to colleagues in neuroscience for an fMRI study or to colleagues in genetics for a genetic study, involving trained experts is useful when delving into historical data. But as with any interdisciplinary work, there are many challenges. In an ideal world, historical psychology would involve a genuine collaboration among psychologists, historians, and other humanities scholars, from the beginnings of hypothesis formation to study design and data gathering methods. However, humanities scholars, for their part, are typically not accustomed to working in research teams, and they have very little professional incentive to take part in scientific studies. Attempts to advocate for closer coordination between the humanities and the sciences (Slingerland 2008, Wilson 1998) have typically fallen on deaf ears among humanities scholars. Large-scale database projects that have attempted to rely primarily upon humanistic expertise, such as the Database of Religious History project, have experienced serious difficulties in gathering data and have had to reconfigure their projects to include features or functions appealing to humanities scholars but orthogonal to the original scientific purpose.

When collaboration or consultation with historians is not feasible, and particularly in more circumscribed cases, it may be possible to rely on existing historical data. For instance, economic historians interested in a small set of proxy values have often been able to perform their own archival work, effectively making themselves into experts on the slice of the historical record they focus on (e.g., Blaydes & Chaney 2013, Chaney 2016, Nunn 2009, Nunn & Wantchekon 2011). The advent of reliable, structured databases of historical cultural data will also make it easier for psychologists to incorporate data from past minds into their analyses. Historical textual corpora can similarly be accessed with minimal effort if appropriate attention is given to the challenges of

Taking history seriously is a critical part of moving beyond the WEIRD people problem and making psychology a genuinely universal science of human cognition and behavior. There is more work in "historical psychology" than we could review. Please share your favorite work! 14/14

See also the thread from co-author @JoHenrich: https://t.co/aICrMZ16Tq

> Jump starting a new field: Historical Psychology. Pop the clutch... @slingerland20 @mmuthukrishna @RachelASpicer https://t.co/0J30gbFRYA pic.twitter.com/GB0Pyj8t7T
>
> — Joe Henrich (@JoHenrich) January 3, 2021

Forgot to link the paper!

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