

References

Aktuell

CONLEY 2016

Dalton Conley, Thomas Laidley, Daniel W. Belsky, Jason M. Fletcher, Jason D. Boardman & Benjamin W. Domingue, *Assortative mating and differential fertility by phenotype and genotype across the 20th century*. [PNAS](#) **113** (2016), 6647–6652.

This study asks two related questions about the shifting landscape of marriage and reproduction in US society over the course of the last century with respect to a range of health and behavioral phenotypes and their associated genetic architecture: (i) Has assortment on measured genetic factors influencing reproductive and social fitness traits changed over the course of the 20th century? (ii) Has the genetic covariance between fitness (as measured by total fertility) and other traits changed over time? The answers to these questions inform our understanding of how the genetic landscape of American society has changed over the past century and have implications for population trends. We show that husbands and wives carry similar loadings for genetic factors related to education and height. However, the magnitude of this similarity is modest and has been fairly consistent over the course of the 20th century. This consistency is particularly notable in the case of education, for which phenotypic similarity among spouses has increased in recent years. Likewise, changing patterns of the number of children ever born by phenotype are not matched by shifts in genotype–fertility relationships over time. Taken together, these trends provide no evidence that social sorting is becoming increasingly genetic in nature or that dysgenic dynamics have accelerated.

Keywords: assortative mating | fertility | polygenic scores | cohort trends

Significance: We describe dynamics in assortative mating and fertility patterns by polygenic scores associated with anthropometric traits, depression, and educational attainment across birth cohorts from 1920 to 1955. We find that, for example, increases in assortative mating at the phenotypic level for education are not matched at the genotypic level. We also show that genes related to height are positively associated with fertility and that, despite a widening gap between the more and less educated with respect to fertility, there is no evidence that this trend is associated with genes. These findings are important to our understanding of the roots of shifting distributions of health and behavior across generations in US society.

EDITORIAL 2016

Energy hit. [nature](#) **534** (2016), 152.

Germany’s decision to slow the expansion of green-energy production is a reasonable move.

YEAGER 2016

David S. Yeager et al., *Teaching a lay theory before college narrows achievement gaps at scale*. [PNAS](#) **113** (2016), E3341–E3348.

David S. Yeager, Gregory M. Walton, Shannon T. Brady, Ezgi N. Akcinar, David Paunesku, Laura Keane, Donald Kamentz, Gretchen Ritter, Angela Lee

Duckworth, Robert Urstein, Eric M. Gomez, Hazel Rose Markus, Geoffrey L. Cohen & Carol S. Dweck

Previous experiments have shown that college students benefit when they understand that challenges in the transition to college are common and improvable and, thus, that early struggles need not portend a permanent lack of belonging or potential. Could such an approach—called a lay theory intervention—be effective before college matriculation? Could this strategy reduce a portion of racial, ethnic, and socioeconomic achievement gaps for entire institutions? Three double-blind experiments tested this possibility. Ninety percent of first-year college students from three institutions were randomly assigned to complete single-session, online lay theory or control materials before matriculation ($n > 9,500$). The lay theory interventions raised first-year full-time college enrollment among students from socially and economically disadvantaged backgrounds exiting a high-performing charter high school network or entering a public flagship university (experiments 1 and 2) and, at a selective private university, raised disadvantaged students' cumulative first-year grade point average (experiment 3). These gains correspond to 31–40% reductions of the raw (unadjusted) institutional achievement gaps between students from disadvantaged and nondisadvantaged backgrounds at those institutions. Further, follow-up surveys suggest that the interventions improved disadvantaged students' overall college experiences, promoting use of student support services and the development of friendship networks and mentor relationships. This research therefore provides a basis for further tests of the generalizability of preparatory lay theories interventions and of their potential to reduce social inequality and improve other major life transitions.

Keywords: inequality | behavioral science | field experiment | social psychology | lay theories

Significance: In the United States, large, persistent gaps exist in the rates at which racial, ethnic, and socioeconomic groups complete postsecondary education, even when groups are equated on prior preparation. We test a method for preventing some of those gaps by providing individuals with a lay theory about the meaning of commonplace difficulties before college matriculation. Across three experiments, lay theory interventions delivered to over 90% of students increased full-time enrollment rates, improved grade point averages, and reduced the overrepresentation of socially disadvantaged students among the bottom 20% of class rank. The interventions helped disadvantaged students become more socially and academically integrated in college. Broader tests can now be conducted to understand in which settings lay theories can help remedy postsecondary inequality at scale.

Anthropologie

VAN DEN BERGH 2016

Gerrit D. van den Bergh et al., *Homo floresiensis-like fossils from the early Middle Pleistocene of Flores*. *nature* **534** (2016), 245–248.

n534-0245-Supplement.pdf

Gerrit D. van den Bergh, Yousuke Kaifu, Iwan Kurniawan, Reiko T. Kono, Adam Brumm, Erick Setiyabudi, Fachroel Aziz & Michael J. Morwood

The evolutionary origin of *Homo floresiensis*, a diminutive hominin species previously known only by skeletal remains from Liang Bua in western Flores, Indonesia, has been intensively debated. It is a matter of controversy whether this primitive form, dated to the Late Pleistocene, evolved from early Asian *Homo erectus* and represents a unique and striking case of evolutionary reversal in hominin body and brain size within an insular environment^{1–4}. The alternative hypothesis is that H.

floresiensis derived from an older, smaller-brained member of our genus, such as *Homo habilis*, or perhaps even late *Australopithecus*, signalling a hitherto undocumented dispersal of hominins from Africa into eastern Asia by two million years ago (2 Ma)^{5,6}. Here we describe hominin fossils excavated in 2014 from an early Middle Pleistocene site (Mata Menge) in the So'a Basin of central Flores. These specimens comprise a mandible fragment and six isolated teeth belonging to at least three small-jawed and small-toothed individuals. Dating to .0.7 Ma, these fossils now constitute the oldest hominin remains from Flores⁷. The Mata Menge mandible and teeth are similar in dimensions and morphological characteristics to those of *H. floresiensis* from Liang Bua. The exception is the mandibular first molar, which retains a more primitive condition. Notably, the Mata Menge mandible and molar are even smaller in size than those of the two existing *H. floresiensis* individuals from Liang Bua. The Mata Menge fossils are derived compared with *Australopithecus* and *H. habilis*, and so tend to support the view that *H. floresiensis* is a dwarfed descendent of early Asian *H. erectus*. Our findings suggest that hominins on Flores had acquired extremely small body size and other morphological traits specific to *H. floresiensis* at an unexpectedly early time.

BRUMM 2016

Adam Brumm et al., *Age and context of the oldest known hominin fossils from Flores*. [nature 534 \(2016\), 249–253](#).

[n534-0249-Supplement.pdf](#)

Adam Brumm, Gerrit D. van den Bergh, Michael Storey, Iwan Kurniawan, Brent V. Alloway, Rully Setiawan, Erick Setiyabudi, Rainer Grün, Mark W. Moore, Dida Yurnaldi, Mika R. Puspaningrum, Unggul P. Wibowo, Halmi Insani, Indra Sutisna, John A. Westgate, Nick J. G. Pearce, Mathieu Duval, Hanneke J. M. Meijer, Fachroel Aziz, Thomas Sutikna, Sander van der Kaars, Stephanie Flude & Michael J. Morwood

Recent excavations at the early Middle Pleistocene site of Mata Menge in the So'a Basin of central Flores, Indonesia, have yielded hominin fossils¹ attributed to a population ancestral to Late Pleistocene *Homo floresiensis*². Here we describe the age and context of the Mata Menge hominin specimens and associated archaeological findings. The fluvial sandstone layer from which the in situ fossils were excavated in 2014 was deposited in a small valley stream around 700 thousand years ago, as indicated by ⁴⁰Ar/³⁹Ar and fission track dates on stratigraphically bracketing volcanic ash and pyroclastic density current deposits, in combination with coupled uranium-series and electron spin resonance dating of fossil teeth. Palaeoenvironmental data indicate a relatively dry climate in the So'a Basin during the early Middle Pleistocene, while various lines of evidence suggest the hominins inhabited a savannah-like open grassland habitat with a wetland component. The hominin fossils occur alongside the remains of an insular fauna and a simple stone technology that is markedly similar to that associated with Late Pleistocene *H. floresiensis*.

FU 2016

Qiaomei Fu et al., *The genetic history of Ice Age Europe*. [nature 534 \(2016\), 200–205](#).

[n534-0200-Supplement.pdf](#)

Qiaomei Fu, Cosimo Posth, Mateja Hajdinjak, Martin Petr, Swapan Mallick, Daniel Fernandes, Anja Furtwängler, Wolfgang Haak, Matthias Meyer, Alissa Mittnik, Birgit Nickel, Alexander Peltzer, Nadin Rohland, Viviane Slon, Sahra Talamo, Iosif Lazaridis, Mark Lipson, Iain Mathieson, Stephan Schiffels, Pontus Skoglund, Anatoly P. Derevianko, Nikolai Drozdov, Vyacheslav Slavinsky,

Alexander Tsybankov, Renata Grifoni Cremonesi, Francesco Mallegni, Bernard Gély, Eligio Vacca, Manuel R. González Morales, Lawrence G. Straus, Christine Neugebauer-Maresch, Maria Teschler-Nicola, Silviu Constantin, Oana Teodora Moldovan, Stefano Benazzi, Marco Peresani, Donato Coppola, Martina Lari, Stefano Ricci, Annamaria Ronchitelli, Frédérique Valentin, Corinne Thevenet, Kurt Wehrberger, Dan Grigorescu, Hélène Rougier, Isabelle Crevecoeur, Damien Flas, Patrick Semal, Marcello A. Mannino, Christophe Cupillard, Hervé Bocherens, Nicholas J. Conard, Katerina Harvati, Vyacheslav Moiseyev, Dorothée G. Drucker, Jirí Svoboda, Michael P. Richards, David Caramelli, Ron Pinhasi, Janet Kelso, Nick Patterson, Johannes Krause, Svante Pääbo & David Reich

Modern humans arrived in Europe $\approx 45,000$ years ago, but little is known about their genetic composition before the start of farming $\approx 8,500$ years ago. Here we analyse genome-wide data from 51 Eurasians from $\approx 45,000$ – $7,000$ years ago. Over this time, the proportion of Neanderthal DNA decreased from 3–6% to around 2%, consistent with natural selection against Neanderthal variants in modern humans. Whereas there is no evidence of the earliest modern humans in Europe contributing to the genetic composition of present-day Europeans, all individuals between $\approx 37,000$ and $\approx 14,000$ years ago descended from a single founder population which forms part of the ancestry of present-day Europeans. An $\approx 35,000$ -year-old individual from northwest Europe represents an early branch of this founder population which was then displaced across a broad region, before reappearing in southwest Europe at the height of the last Ice Age $\approx 19,000$ years ago. During the major warming period after $\approx 14,000$ years ago, a genetic component related to present-day Near Easterners became widespread in Europe. These results document how population turnover and migration have been recurring themes of European prehistory.

GÓMEZ-ROBLES 2016

Aida Gómez-Robles, *The dawn of Homo floresiensis*. [nature](#) **534** (2016), 188–189.

New fossil findings demonstrate that the diminutive hominin *Homo floresiensis* lived on the Indonesian island of Flores at least 700,000 years ago, and may point to its rapid dwarfism from the larger *Homo erectus*.

Archäologie

EICH 2015

Armin Eich, *Die Söhne des Mars, eine Geschichte des Krieges von der Steinzeit bis zum Ende der Antike*. (München 2015).

WOTZKA 2006

HANS-PETER WOTZKA (Hrsg.), *Grundlegungen, Beiträge zur europäischen und afrikanischen Archäologie für Manfred K. H. Eggert*. (Tübingen 2006).

Bibel

LEVINSON 2003

Bernard M. Levinson, *You Must Not Add Anything To What I Command You, Paradoxes of canon and authorship in ancient Israel*. [Numen](#) **50** (2003), 1–51.

For all the debate in the contemporary humanities about the canon, there is little interdisciplinary dialogue on the issue, nor even meaningful input from the perspective of academic biblical studies, the one discipline that specializes in the formation and interpretation of the canon. Seeking to provide such a perspective, this article shows how cultures having a tradition of prestigious or authoritative texts address the problem of literary and legal innovation. Engaging the work of Jonathan Z. Smith on exegetical ingenuity, the study begins with cuneiform law, and then shows how ancient Israel's development of the idea of divine revelation of law creates a cluster of constraints that would be expected to impede legal revision or amendment. As a test-case, the article examines the idea that God punishes sinners transgenerationally, vicariously extending the punishment due them to three or four generations of their progeny. A series of inner-biblical and post-biblical responses to the rule demonstrates, however, that later writers were able to criticize, reject, and replace it with the alternative notion of individual retribution. The conclusions stress the extent to which the formative canon sponsors this kind of critical reflection and intellectual freedom.

VAUGHN 2003

ANDREW VAUGHN & ANN E. KILLEBREW (Hrsg.), *Jerusalem in Bible and archaeology, The First Temple period*. Society of Biblical Literature Symposium 18 (Atlanta 2003).

Biologie

PERRY 2016

Rachel J. Perry et al., *Acetate mediates a microbiome-brain- β -cell axis to promote metabolic syndrome*. [nature 534 \(2016\), 213–217](#).
n534-0213-Supplement.pdf

Rachel J. Perry, Liang Peng, Natasha A. Barry, Gary W. Cline, Dongyan Zhang, Rebecca L. Cardone, Kitt Falk Petersen, Richard G. Kibbey, Andrew L. Goodman & Gerald I. Shulman

Obesity, insulin resistance and the metabolic syndrome are associated with changes to the gut microbiota; however, the mechanism by which modifications to the gut microbiota might lead to these conditions is unknown. Here we show that increased production of acetate by an altered gut microbiota in rodents leads to activation of the parasympathetic nervous system, which, in turn, promotes increased glucose-stimulated insulin secretion, increased ghrelin secretion, hyperphagia, obesity and related sequelae. Together, these findings identify increased acetate production resulting from a nutrient–gut microbiota interaction and subsequent parasympathetic activation as possible therapeutic targets for obesity.

TRAJKOVSKI 2016

Mirko Trajkovski & Claes B. Wollheim, *Microbial signals to the brain control weight*. [nature 534 \(2016\), 185–187](#).

The bacteria that inhabit the rodent gut promote insulin secretion and food intake by activating the parasympathetic nervous system — a hitherto unknown mode of action for this multifaceted microbiota.

Grabung

HAMAL-NANDRIN 1929

J. Hamal-Nandrin & J. Servais, *Contribution à l'étude de la taille du silex aux différentes époques de l'Age de la Pierre, Le nucléus et ses différentes transformations. (2e Article)*. [Bulletin de la Société préhistorique française](#) **26** (1929), 541–552.

KOOIJMANS 1988

L. P. Louwe Kooijmans, *Limburg – vuursteenland*. [Maasgouw](#) **107** (1988), 170–180.

Klima

SERANGELI 2006

Jordi Serangeli, *Verbreitung der großen Jagdfauna in Mittel- und Westeuropa im oberen Jungpleistozän, Ein kritischer Beitrag*. Dissertation Tübingen ([Rahden 2006](#)).

For the first time, many of the published depictions of uncommon animal species are brought together: *Equus hydruntinus*, *Sus scrofa*, *Dama dama*, *Capreolus capreolus*, *Alces alces*, *Megaloceros giganteus*, *Ovibos moschatus*, *Rupicapra rupicapra*, *Saiga tatarica*, Phocidae, Cetacea and *Pinguinus impennis*.

It is especially significant that during OIS4 (oxygen isotope stage), the first glacial maximum of the last ice age, the distribution of species such as mammoth and woolly rhino extended as far south as southern Spain and southern Italy, without the extinction of the forest elephant, forest rhino, and steppe rhino, which were living to these temperate regions. Aside from a few definitive pictures of reindeer, researchers have made only a few ambiguous identifications from the “mammuthus-coelodonta” faunal complex during the time of the Upper Paleolithic, south of Cantabria. There are few Upper Paleolithic remains that have been discovered in Italy and no representations of *Mammuthus primigenius*, *Coelodonta antiquitatis* or *Rangifer tarandus* are reported.

The extinction of the forest elephant, as well as the forest and steppe rhino, did not occur until shortly after 30 kya. At about the same time, the European bison and the giant deer disappeared from southern Italy. Beginning around this period, and no later than the second glacial maximum (OIS2) of the last ice age, the number of fallow deer declined sharply and even may have completely died out in southwestern Europe. This suggests a strong impoverishment of the larger game in southern Europe. Though not analyzed in this study, one could also add *Homo neanderthalensis* to the list of these extinct animals.

Klima Energie

PRYOR 2016

A. J. E. Pryor, A. Pullen, D. G. Beresford-Jones, J. A. Svoboda & C. S. Gamble, *Reflections on Gravettian firewood procurement near the Pavlov Hills, Czech Republic*. [Journal of Anthropological Archaeology](#) **43** (2016), 1–12.

This paper draws attention to firewood as a natural resource that was gathered, processed and consumed on a daily basis by Palaeolithic groups. Using Gravettian occupation of the Pavlovské Hills as a case study (dated to around 30,000 years BP), we investigate firewood availability using archaeological, palaeoenvironmental and ecological data, including making inferences from charcoal in Pavlovian hearths. The collated evidence suggests that while dead wood was likely readily available in woodland areas where humans had not recently foraged, longer term occupations – or repeated occupation of the same area by different groups – would have quickly exhausted naturally occurring supplies. Once depleted, the deadwood pool may have taken several generations ($\approx 40\text{--}120$ years) to recover enough to provide fuel for another base camp occupation. Such exhaustion of deadwood supplies is well attested ethnographically. Thus, we argue that Pavlovian groups likely managed firewood supplies using methods similar to those used by recent hunter-gatherers: through planned geographic mobility and by deliberately killing trees years in advance of when wood was required, so leaving time for the wood to dry out. Such management of fuel resources was, we argue, critical to human expansion into these cold, hitherto marginal, ecologies of the Upper Palaeolithic.

Keywords: Gravettian | Firewood | Fire | Charcoal | Resource management | Upper Paleolithic

Metallzeiten

KAHN 2011

Dan’el Kahn, *The Campaign of Ramesses III against Philistia*. [Journal of Ancient Egyptian Interconnections](#) **3** (2011), iv, 1–11.

In this article I propose that Ramesses III campaigned in his eighth regnal year against the Philistines on the Northern borders of Canaan and prevented them from invading Egyptian controlled territory. Ramesses was victorious in a pitched battle, routed the Philistines to their home and destroyed their kingdom. This kingdom, named “the Land of Palestine”, was possibly located in the Amuq plain in Southern Turkey, in the territory of the former Kingdom of Alalakh.

Ozeanien

CROWTHER 2016

Alison Crowther et al., *Ancient crops provide first archaeological signature of the westward Austronesian expansion*. [PNAS](#) **113** (2016), 6635–6640.

Alison Crowther, Leilani Lucas, Richard Helm, Mark Horton, Ceri Shipton, Henry T. Wright, Sarah Walshaw, Matthew Pawlowicz, Chantal Radimilahy, Katerina Douka, Llorenc Picornell-Gelabert, Dorian Q. Fuller & Nicole L. Boivin

The Austronesian settlement of the remote island of Madagascar remains one of the great puzzles of Indo-Pacific prehistory. Although linguistic, ethnographic, and genetic evidence points clearly to a colonization of Madagascar by Austronesian language-speaking people from Island Southeast Asia, decades of archaeological research have failed to locate evidence for a Southeast Asian signature in the island’s early material record. Here, we present new archaeobotanical data that show that Southeast Asian settlers brought Asian crops with them when they settled in Africa. These crops provide the first, to our knowledge, reliable archaeological window into the Southeast Asian colonization of Madagascar. They additionally

suggest that initial Southeast Asian settlement in Africa was not limited to Madagascar, but also extended to the Comoros. Archaeobotanical data may support a model of indirect Austronesian colonization of Madagascar from the Comoros and/or elsewhere in eastern Africa.

Keywords: archaeobotany | dispersal | Madagascar | language | rice

Significance: The prehistoric settlement of Madagascar by people from distant Southeast Asia has long captured both scholarly and public imagination, but on the ground evidence for this colonization has eluded archaeologists for decades. Our study provides the first, to our knowledge, archaeological evidence for an early Southeast Asian presence in Madagascar and reveals that this settlement extended to the Comoros. Our findings point to a complex Malagasy settlement history and open new research avenues for linguists, geneticists, and archaeologists to further study the timing and process of this population movement. They also provide insight into early processes of Indian Ocean biological exchange and in particular, Madagascar's floral introductions, which account for one-tenth of its current vascular plant species diversity.

Politik

GAMBETTA 2016

Diego Gambetta & Steffen Hertog, *Engineers of jihad, The curious connection between violent extremism and education*. (Princeton 2016).

The violent actions of a few extremists can alter the course of history, yet there persists a yawning gap between the potential impact of these individuals and what we understand about them. In "Engineers of Jihad," Diego Gambetta and Steffen Hertog uncover two unexpected facts, which they imaginatively leverage to narrow that gap: they find that a disproportionate share of Islamist radicals come from an engineering background, and that Islamist and right-wing extremism have more in common than either does with left-wing extremism, in which engineers are absent while social scientists and humanities students are prominent.

Religion

CZACHESZ 2014

István Czachesz, *How to Read Miracle Stories with Cognitive Theory, On Harry Potter, Magic, and Miracle*. In: BERND KOLLMANN & RUBEN ZIMMERMANN (Hrsg.), *Hermeneutik der frühchristlichen Wundererzählungen, Geschichtliche, literarische und rezeptionsorientierte Perspektiven*. Wissenschaftliche Untersuchungen zum Neuen Testament 339 (Tübingen 2014), 545–558.

This chapter showed how scientific knowledge from evolutionary theory, cognitive science, and experimental psychology helps us read early Christian miracle stories. In addition to highlighting and analyzing crosscultural patterns of thought and behavior that support the popularity of miracle stories, making them "mental candies" for people with different cultural backgrounds and convictions, we also paid attention to the cultural factors that provide different contexts for the reception of miracle stories in ancient times and Western modernity, respectively. Most importantly, we have seen that it is not the belief in the "factual" truth of miracles (or the lack of such faith) that determines their success. The question is rather what a certain culture or subculture makes of the attractive power of miracle stories. Already in antiquity, a miracle story could be thought of as a poetic device or

entertaining fiction, or the miracle performed in it could be interpreted as harmful magic. Miracle stories and magical practice formed a symbiotic bond. For the modern reader, the options of contextualizing miracle are even more diverse, ranging from pre-modern literalism to ideological deconstruction and psychoanalytical symbolism. In the end, however, each of those interpretative frameworks adds to the success of miracles.

CZACHESZ 2015

István Czachesz, *Tours of Heaven in Light of the Neuroscientific Study of Religious Experience*. [Journal of Cognitive Historiography 2 \(2015\), 33–52](#).

This article addresses the neuroscientific background of ancient tours of heaven. McNamara's work on religious experience is used in the context of other philosophical, cognitive, and neuroscientific research. After discussing the definition and phenomenology of subjective experience, the article outlines three possible understandings of religious experience in the cognitive research tradition. The article then situates ancient tours of heaven in the context of flights and ascents in religious traditions and discusses how neuroscientific evidence sheds light on various aspects of such experiences. In particular, McNamara's work is combined with Michael Marsh's study of extracorporeal experiences to account for the two-phase narrative sequence of the tours. The model is applied to the tour of heaven in the Ascension of Isaiah, followed by a brief discussion of other early Jewish and Christian apocalypses.

Keywords: Apocalypticism | Ascension of Isaiah | extra-corporeal experiences | flights | near-death experiences | out-of-body experiences | qualia | sleep paralysis | subjective experience | tours of heaven.