Liste erstellt am 2013-09-07

Literatur

Afrika

Hayden 2013

Erika Check Hayden, *African genes tracked back*. nature **500** (2013), 514.

Method extends archaeological and linguistic data by tracing early human migration.

Pickrell 2013

Joseph K. Pickrell, Nick Patterson, Po-Ru Loh, Mark Lipson, Bonnie Berger, Mark Stoneking, Brigitte Pakendorf & David Reich, *Ancient west Eurasian ancestry in southern and eastern Africa*. arXiv (2013), 1307.8014. DOI:http://arxiv.org/pdf/1307.8014.

The history of southern Africa involved interactions between indigenous hunter-gatherers and a range of populations that moved into the region. Here we use genome-wide genetic data to show that there are at least two admixture events in the history of Khoisan populations (southern African hunter-gatherers and pastoralists who speak non-Bantu languages with click consonants). One involved populations related to Niger-Congo-speaking African populations, and the other introduced ancestry most closely related to west Eurasian (European or Middle Eastern) populations. We date this latter admixture event to approximately 900-1,800 years ago, and show that it had the largest demographic impact in Khoisan populations that speak Khoe-Kwadi languages. A similar signal of west Eurasian ancestry is present throughout eastern Africa. In particular, we also find evidence for two admixture events in the history of Kenyan, Tanzanian, and Ethiopian populations, the earlier of which involved populations related to west Eurasians and which we date to approximately 2,700 – 3,300 years ago. We reconstruct the allele frequencies of the putative west Eurasian population in eastern Africa, and show that this population is a good proxy for the west Eurasian ancestry in southern Africa. The most parsimonious explanation for these findings is that west Eurasian ancestry entered southern Africa indirectly through eastern Africa.

Aktuell

Brook 2013

Barry W. Brook et al., *Lack of chronological support for stepwise prehuman extinctions of Australian megafauna*. PNAS **110** (2013), E3368.

Barry W. Brook, Corey J. A. Bradshaw, Alan Cooper, Christopher N. Johnson, Trevor H. Worthy, Michael Bird, Richard Gillespie & Richard G. Roberts

The hypothesis of prehuman extinctions is statistically unsupported. Importantly, for instance, more than 60 % of the prehuman taxa are known from only one or two dated records, so little can be inferred about their temporal duration. Sites where intensive sampling has been possible (Naracoorte and Tight Entrance Caves) reveal a pattern of repeated local losses in response to climatic fluctuations, but with the subsequent reappearance of most species.

Couzin-Frankel 2013

Jennifer Couzin-Frankel, *The Web's Faceless Judges*. science **341** (2013), 606–608.

PubPeer is the latest forum for free-ranging discussion of published papers. It can only succeed, say its anonymous founders, if participants are able to keep their identities hidden.

"It's very easy to say, 'That paper's crap and how did it ever get accepted,' " Barbour says. "To be sure you have a watertight case isn't trivial." Although he tries to be equally rigorous whether posting anonymously or not, he says the pressure to "make extra certain" the text is accurate is heightened when he goes public. Fang, who has left comments on Retraction Watch, agrees. "When I have to sign my name to it, it makes me just a little bit more thoughtful before I hit 'send,' " he says.

"Either you want to stand by what you're saying, or you don't say it." Hestrin e-mailed the site to say he'd be happy to respond if he knew who was asking the questions, but was told that wasn't an option. "I just disengaged," he says, and didn't reply, although he acknowledges the points raised—essentially, whether the data had been overinterpreted—weren't unreasonable. Ironically, some of those who decry anonymity most vigorously insisted that their names not appear in this story. "Anonymity's a great cover for people who want to take other people down," says one author whose work was cited on PubPeer. Another scientist argued that PubPeer "becomes basically a gossip site" lacking "credibility or accountability." ("I've never done anything anonymously," this person emphasized, while stipulating that their name not be publicized.)

Fasullo 2013

John T. Fasullo, Carmen Boening, Felix W. Landerer & R. Steven Nerem, *Australia's unique influence on global sea level in 2010–2011*. Geophysical Research Letters (2013), preprint, 1–6. DOI:10.1002/grl.50834.

GeoResLet2013-preprint-Supplement0904.zip

In 2011, a significant drop in global sea level occurred that was unprecedented in the altimeter era and concurrent with an exceptionally strong La Niña. This analysis examines multiple data sets in exploring the physical basis for the drop's exceptional intensity and persistence. Australia's hydrologic surface mass anomaly is shown to have been a dominant contributor to the 2011 global total, and associated precipitation anomalies were among the highest on record. The persistence of Australia's mass anomaly is attributed to the continent's unique surface hydrology, which includes expansive arheic and endorheic basins that impede runoff to ocean. Based on Australia's key role, attribution of sea level variability is addressed. The modulating influences of the Indian Ocean Dipole and Southern Annular Mode on La Niña teleconnections are found to be key drivers of anomalous precipitation in the continent's interior and the associated surface mass and sea level responses.

Grayson 2013

Bernadette E. Grayson, Katarina M. Schneider, Stephen C. Woods & Randy J. Seeley, *Improved Rodent Maternal Metabolism But Reduced Intrauterine Growth After Vertical Sleeve Gastrectomy*. Science Translational Medicine **5** (2013), 199ra112. DOI:10.1126/scitranslmed.3006505.

SciTransMed05-199ra112-Supplement1.pdf

Obesity has profound negative consequences on female reproduction as well as on the metabolic health of offspring. Bariatric surgery is the most effective method for sustained weight loss. A critical question is whether bariatric surgery can reverse

the deleterious effects of obesity on both female reproduction and subsequent offspring. Vertical sleeve gastrectomy (VSG) is a bariatric procedure rapidly growing in popularity because it provides weight loss and other metabolic benefits that are comparable to those offered by the more complicated Roux-en-Y gastric bypass (RYGB). Female rats rendered obese on a high-fat diet (HFD) underwent either VSG or sham surgery. Like their male counterparts, females had significant metabolic improvements including reduced adiposity and improved glucose tolerance. After VSG, female rats showed a more normal reproductive cycle. Despite these maternal benefits, the offspring of dams receiving VSG were born smaller and lighter than offspring of control dams that underwent sham surgery. When maintained on an HFD after puberty, these adult offspring had a greater propensity to develop glucose intolerance and increased adiposity than the offspring of lean mothers or obese mothers who underwent sham surgery. These data suggest that weight loss alone by obese mothers is not sufficient to reverse the deleterious effects of an HFD and obesity on their offspring.

Kupferschmidt 2013

Kai Kupferschmidt, *Lab Burger Adds Sizzle to Bid for Research Funds*. science **341** (2013), 602–603.

In a 2011 study, scientists estimated that cultured meat may need 35 % to 60 % less energy, occupy 98 % less land, and produce 80 % to 95 % less greenhouse gases—cows are notorious methane producers—than conventional meat. The idea of growing meat in the lab has been around for decades; Winston Churchill mentioned it in a 1931 essay.

Pancost 2013

Richard D. Pancost, Marcus P. S. Badger & John Reinfelder, *Ancient algae crossed a threshold*. nature **500** (2013), 532–533.

The finding that the shells of certain algae can contain a signature of low levels of atmospheric carbon dioxide has prompted the discovery of the emergence of this signature in the fossil record. Here, experts discuss the implications of this for climate science and ocean ecology.

Rosen 2005

Steven Rosen, *Coming of Age, The Decline of Archaeology in Israeli Identity*. BGU Review **2005**. http://in.bgu.ac.il/en/heksherim/2005/Coming-of-Age.pdf.

I have tried to present a model of disciplinary development where myth-building/nationalism/identity construction is integrated into a larger and more complex dynamic than is usually addressed in histories of archaeology. Thus, nationalism and identity construction are not features unique or specific to Israeli archaeology, but instead a rather typical phase through which Israeli archaeology has passed (and is still passing), and through which virtually all western archaeologies have passed as well. In this light, we can expect that archaeologies in developing countries will experience similar dynamics, marked by the specificities of their local history, both ancient and modern. In this light, we can see Palestinian archaeology engaged in the same constructions and reconstructions that Israeli archaeology has experienced and continues to experience. This is not an issue of scientific rigor, integrity, or quality. Rather, it is apparently the way the discipline develops.

Szpiro 2013

George Szpiro, *Value judgements*. nature **500** (2013), 521–523.

A mathematical paradox posed in a letter 300 years ago sowed the seed of economic theory by asking what money is worth, explains George Szpiro.

Wroe 2013

Stephen Wroe et al., *No empirical evidence for human overkill of megafauna in Sahul, Reply to Brook et al.* PNAS **110** (2013), E3369.
Stephen Wroe, Judith H. Field, Michael Archer, Donald K. Grayson, Gilbert J. Price, Julien Louys, J. Tyler Faith, Gregory E. Webb, Iain Davidson & Scott D. Mooney
The human-driven scenario offered by Brook et al. invites the reader to first assume that all now-extinct megafauna were present at 50 ka, despite a complete lack of evidence for many since ≈400–450 ka and for most since ≈130 ka. Brook et al. assert that this can be explained as an as yet empirically undemonstrated statistical anomaly. Reliance on a priori assumptions aside, a further fundamental shortcoming of their model is the failure to demonstrate any association/interaction of humans with megafauna. We recognize that Brook et al. believe that Cuddie Springs and other sites with late-surviving megafauna are controversial. However, Cuddie Springs represents the only Australian site with evidence of humans and megafauna in the same place at the same time.

Anthropologie

House 2013

Bailey R. House et al., *Ontogeny of prosocial behavior across diverse societies.* PNAS **110** (2013), 14586–14591.
Bailey R. House, Joan B. Silk, Joseph Henrich, H. Clark Barrett, Brooke A. Scelza, Adam H. Boyette, Barry S. Hewlett, Richard McElreath & Stephen Laurence
Humans are an exceptionally cooperative species, but there is substantial variation in the extent of cooperation across societies. Understanding the sources of this variability may provide insights about the forces that sustain cooperation. We examined the ontogeny of prosocial behavior by studying 326 children 3–14 y of age and 120 adults from six societies (age distributions varied across societies). These six societies span a wide range of extant human variation in culture, geography, and subsistence strategies, including foragers, herders, horticulturalists, and urban dwellers across the Americas, Oceania, and Africa. When delivering benefits to others was personally costly, rates of prosocial behavior dropped across all six societies as children approached middle childhood and then rates of prosociality diverged as children tracked toward the behavior of adults in their own societies. When prosocial acts did not require personal sacrifice, prosocial responses increased steadily as children matured with little variation in behavior across societies. Our results are consistent with theories emphasizing the importance of acquired cultural norms in shaping costly forms of cooperation and creating cross-cultural diversity.
development | population differences | gene-culture coevolution

Uomini 2013

Natalie Thaïs Uomini & Georg Friedrich Meyer, *Shared Brain Lateralization Patterns in Language and Acheulean Stone Tool Production, A Functional Transcranial Doppler Ultrasound Study.* PLoS ONE **8** (2013), e72693. DOI:10.1371/journal.pone.0072693.
pone08-e72693-Supplement1.wmv

Background: The popular theory that complex tool-making and language co-evolved in the human lineage rests on the hypothesis that both skills share underlying brain processes and systems. However, language and stone tool-making have so far only been studied separately using a range of neuroimaging techniques and diverse paradigms.
Methodology/Principal Findings: We present the first-ever study of brain activation that directly compares active Acheulean tool-making and language. Using functional transcranial Doppler ultrasonography (fTCD), we measured brain blood flow lateralization patterns (hemodynamics) in subjects who performed two tasks designed to isolate the planning component of Acheulean stone tool-making and cued word generation as a language task. We show highly correlated hemodynamics in the initial 10 seconds of task execution.
Conclusions/Significance: Stone tool-making and cued word generation cause common cerebral blood flow lateralization signatures in our participants. This is consistent with a shared neural substrate for prehistoric stone tool-making and language, and is compatible with language evolution theories that posit a co-evolution of language and manual praxis. In turn, our results support the hypothesis that aspects of language might have emerged as early as 1.75 million years ago, with the start of Acheulean technology.

Energie

Bishop 2013

Justin D. K. Bishop, Colin J. Axon, David Bonilla, Martino Tran, David Banister & Malcolm D. McCulloch, *Evaluating the impact of V2G services on the degradation of batteries in PHEV and EV*. Applied Energy **111** (2013), 206–218.

Many researchers and industry observers claim that electric vehicles (EV) and plug-in hybrid electric vehicles (PHEV) could provide vehicle-to-grid (V2G) bulk energy and ancillary services to an electricity network. This work quantified the impact on various battery characteristics whilst providing such services. The sensitivity of the impact of V2G services on battery degradation was assessed for EV and PHEV for different battery capacities, charging regimes, and battery depth of discharge. Battery degradation was found to be most dependent on energy throughput for both the EV and PHEV powertrains, but was most sensitive to charging regime (for EVs) and battery capacity (for PHEVs). When providing ancillary services, battery degradation in both powertrains was most sensitive to individual vehicle battery depth of discharge. Degradation arising from both bulk energy and ancillary services could be minimised by reducing the battery capacity of the vehicle, restricting the number of hours connected and reducing the depth of discharge of each vehicle for ancillary services. Regardless, best case minimum impacts of providing V2G services are severe such as to require multiple battery pack replacements over the vehicle lifetime.
Keywords: Battery degradation | Battery lifetime | Energy throughput | Vehicle-to-grid

Grundlagen

Fox 2013

Margalit Fox, *The riddle of the labyrinth, The quest to crack an ancient code and the uncovering of a lost civilisation.* (London 2013).

The decoding of Linear B is one of the world's greatest stories: from the discovery of a cache of ancient tablets recording a lost prehistoric language to the dramatic solution of the riddle nearly seventy years later, it exerts a mesmerizing pull on the imagination. But, captivating as it is, this story is missing a crucial piece. Two men have dominated Linear B in popular history: Arthur Evans, the intrepid Victorian archaeologist who unearthed Linear B at Knossos and Michael Ventris, the dashing young amateur who produced a solution. But there was a third figure: Alice Kober, without whose painstaking work, recorded on pieces of paper clipped from hymn-sheets and magazines and stored in cigarette boxes in her Brooklyn loft, Linear B might still remain a mystery. Drawing on Kober's own papers – only made available recently – Margalit Fox provides the final piece of the enigma, and along the way reveals how you decipher a language when you know neither its grammar nor its alphabet as well as the stories behind other ancient languages, like the dancing-man Rongorongo of Easter Island.

Hansen 2013

Svend Hansen, *The Birth of the Hero, The emergence of a social type in the 4th millennium bc.* In: Elisabetta Starnini (Hrsg.), *Unconformist Archaeology, Papers in honour of Paolo Biagi.* BAR International Series 2528 (Oxford 2013), 101–112.

Heroic figures have not existed at all times but emerged in a specific social and historical context. In the light of this paradigm, the paper discusses the emergence of the figure of the hero in Eurasia as a social prototype that is first circumscribable through written sources of the Bronze and early Iron ages of the second and first millennia BC. There the hero stands out among the masses through his strength and other capacities; he is a charismatic figure, who leads an extraordinary life. Most likely this figure first appeared long before the recording of the written sources; from an archaeological point of view the birth of the hero presumably occurred between 3500 and 3000 cal BC, at the latest. However, the hero as a social type was not Homer's creation; it existed much earlier because it appears for the first time in the literature with Gilgamesh, the legendary king of Uruk, dated to the 27th century BC. Probably, the slow birth of the hero in Europe took place during an especially dynamic period in prehistory, the second half of the 4th millennium. This time was marked by a series of innovations, which are the classical elements of the 'secondary products revolution', such as woolly sheep, the wheel and wagon, the plough, and also new metallurgical processes, new weapons and enormous changes in social conditions.

Keywords: Bronze Age, Iron Age, epic hero, social differentiation

Klima

Bolton 2013

Clara T. Bolton & Heather M. Stoll, *Late Miocene threshold response of marine algae to carbon dioxide limitation.* nature **500** (2013), 558–562.

n500-0558-Supplement1.pdf

Coccolithophores are marine algae that use carbon for calcification and photosynthesis. The long-term adaptation of these and other marine algae to decreasing carbon dioxide levels during the Cenozoic era1 has resulted in modern algae capable of actively enhancing carbon dioxide at the site of photosynthesis.This enhancement occurs through the transport of dissolved bicarbonate (HCO3-) and with the help of enzymes whose expression can be modulated by variable aqueous carbon

dioxide concentration, [CO2], in laboratory cultures2,3.Coccolithophores preserve the geological history of this adaptation because the stable carbon and oxygen isotopic compositions of their calcite plates (coccoliths), which are preserved in the fossil record, are sensitive to active carbon uptake and transport by the cell. Here we use a model of cellular carbon fluxes and show that at low [CO2] the increased demand for HCO3-2 at the site of photosynthesis results in a diminished allocation of HCO3-2 to calcification, which is most pronounced in larger cells. This results in a large divergence between the carbon isotopic compositions of small versus large coccoliths only at low [CO2]. Our evaluation of the oxygen and carbon isotope record of size-separated fossil coccoliths reveals that this isotopic divergence first arose during the late Miocene to the earliest Pliocene epoch (about 7–5 million years ago). We interpret this to be a threshold response of the cells' carbon acquisition strategies to decreasing [CO2]. The documented coccolithophore response is synchronous with a global shift in terrestrial vegetation distribution between 8 and 5 Myr ago, which has been interpreted by some studies as a floral response to decreasing partial pressures of carbon dioxide (pCO2) in the atmosphere4–6. We infer a global decrease in carbon dioxide levels for this timeinterval that has not yet been identified in the sparse pCO2 proxy record7 but is synchronous with global cooling and progressive glaciations8,9.

Polissar 2013

Pratigya J. Polissar, Mark B. Abbott, Alexander P. Wolfe, Mathias Vuille & Maximiliano Bezada, *Synchronous interhemispheric Holocene climate trends in the tropical Andes*. PNAS **110** (2013), 14551–14556.

Holocene variations of tropical moisture balance have been ascribed to orbitally forced changes in solar insolation. If this model is correct, millennial-scale climate evolution should be antiphased between the northern and southern hemispheres, producing humid intervals in one hemisphere matched to aridity in the other. Here we show that Holocene climate trends were largely synchronous and in the same direction in the northern and southern hemisphere outer-tropical Andes, providing little support for the dominant role of insolation forcing in these regions. Today, seasurface temperatures in the equatorial Pacific Ocean modulate rainfall variability in the outer tropical Andes of both hemispheres, and we suggest that this mechanism was pervasive throughout the Holocene. Our findings imply that oceanic forcing plays a larger role in regional South American climate than previously suspected, and that Pacific sea-surface temperatures have the capacity to induce abrupt and sustained shifts in Andean climate.

Venezuela | Bolivia | Caribbean | El Niño-Southern Oscillation | Milankovitch

Kultur

Boyd 1995

Robert Boyd & Peter J. Richerson, *Why Does Culture Increase Human Adaptability?* Ethology and Sociobiology **16** (1995), 125–143.

It is often argued that culture is adaptive because it allows people to acquire useful information without costly learning. In a recent paper Rogers (1989) analyzed a simple mathematical model that showed that this argument is wrong. Here we show that Rogers' result is robust. As long as the only benefit of social learning is that imitators avoid learning costs, social learning does not increase average fitness. However, we also show that social learning can be adaptive if it makes individual learning more accurate or less costly.

Keywords: Social learning; Adaptation; Culture; Sociobiology.

Kanjou 2013

Y. Kanjou, I. Kuijt, Y. S. Erdal & O. Kondo, *Early Human Decapitation, 11,700–10,700 cal BP, within the Pre-Pottery Neolithic Village of Tell Qaramel, North Syria*. International Journal of Osteoarchaeology (2013), preprint, 1–10. DOI:10.1002/oa.2341.

The process and timing of skull removal remains poorly understood by researchers. New archaeological and skeletal analysis from two skeletons from the early Pre-Pottery Neolithic site of Tell Qaramel, northern Syria, highlights that Neolithic villagers used stone tools to physically decapitate the dead. Drawing upon cutmarks on the axis and the mandible from primary and secondary burials, we employed a scanning electron microscope to document how Neolithic people cut the ligament and its surrounding connecting tissues that bind the cranium with the bones of the axis and the mandible. The position of the cutmarks, especially at the top of the odontoid process of the axis, illustrates the complexities of intentional skull removal. From these and associated burial data, we illustrate that Levantine Neolithic people had specific practical codes for the sequence of skull removal, but given variation in the decomposition of the human body, at times, villagers had to use flint tools for skull removal. This study provides evidence of some of the world's earliest examples of intentional decapitation within human communities. Copyright © 2013 John Wiley & Sons, Ltd.

Keywords: skull removal; Neolithic; cutmarks

Kober 1944

A. E. Kober, *The "Adze" Tablets from Knossos*. American Journal of Archaeology **48** (1944), 64–75.

One of the most striking things about the "cattle" inventories is the fact that the number of cattle listed on the tablets is almost always either 100, a multiple of 100 or a fraction of 100 (usually 50). It is for this reason that Evans calls these inscriptions "percentage tablets" (PM. 692-3). Sundwall goes further, and calls them "hecatomb inventories." He discusses them under the general heading of "Opferinventare" (Altkr. 25 ff.). If he is right, and the "cattle" inventories give the numbers of cattle slaughtered at certain festivals, perhaps the "adze" inventories list the numbers of instruments used at these sacrifices, or reserved for use at such times. Then the words common to both types of inscription may be a kind of date, perhaps the name of the festival or the god to whom it was dedicated, or the name of the official in charge, as Sundwall has already suggested in connection with the "cattle" inventories. Further conjecture is useless until the publication of new inscriptions either confirms or denies the assumptions already made. One thing is certain: if so much headway can be made simply because we know the sequence of one small group of seven inscriptions, much more can be done, with the help of text restoration, when we have several groups with which to work.

Kober 1945

Alice E. Kober, *Evidence of Inflection in the "Chariot" Tablets from Knossos*. American Journal of Archaeology **49** (1945), 143–151.

By combining hard work with a certain amount of common sense, answers to the following fundamental questions can often be found:

1- What different signs are used in writing the documents?

2- What is the numerical system?

3-Are ideograms used, and, if so, do they give any indication of the nature of the documents?

4–Can the documents be classified, and, if so, into what categories?

5- Can separate words be distinguished?
After long years of work, the publications of Sir Arthur Evans, supplemented, and in some cases corrected, by those of Dr. Johannes Sundwall, have supplied answers to all of these questions for the scripts of pre-Hellenic Crete and Greece.
Further conjecture is useless. The findings of this study may be summarized as follows: it is highly probable that the language of the Linear Class B documents was inflected, but the types of inflection used, and their significance, are still unknown.

Kober 1946

Alice E. Kober, *Inflection in Linear Class B: 1-Declension*. American Journal of Archaeology **50** (1946), 268–276.

Certain assumptions must be made before the evidence can be analyzed in any logical way:
1. that the language in question had inflection. The likelihood of this assumption was pointed out in AJA. 1945, pp. 145-151.
2. that an inflected language must of necessity have paradigms of some kind. This is an obvious conclusion, based on the preceding assumption.
3. that when inscriptions contain lists of words, each followed by an ideogram and a number, such words are nouns, or what passes for nouns in the language.

Kober 1948

Alice E. Kober, *The Minoan Scripts: Fact and Theory*. American Journal of Archaeology **52** (1948), 82–103.

The basic distinction between fact and theory is clear enough: a fact is a reality, an actuality, something that exists; a theory states that something might be, or could be, or should be. Like most simple statements, the foregoing has implications that are far from simple. In dealing with the past we are concerned, not with something that exists, but with something that has existed. Our facts are limited to those things for the past which still exist; everything else is theory, which may range all the way from practical certainty to utter impossibility, depending on its relationship to known facts.
Before judging a theory, we must therefore know what the facts are. In the case of an unknown script, our basic "facts" are obviously the inscribed documents themselves. It is notorious that the Minoan inscriptions have never been accessible to scholars as a whole. This means that our basic information is at best second-hand, and liable to all the distortions that may occur in mechanical or manual reproduction.
Fig. 10 shows how the information in fig. 8 may be interpreted to explain the phonetic relationships of eight of the signs involved in the "inflectional" variations of the "First Declension."
The task before us is to analyze these scripts thoroughly, honestly, and without prejudice. Any discussion of the possibility of ultimate decipherment is premature. When we have the facts, certain conclusions will be almost inevitable. Until we have them, no conclusions are possible.

Muchnik 2013

Lev Muchnik, Sinan Aral & Sean J. Taylor, *Social Influence Bias, A Randomized Experiment*. science **341** (2013), 647–651.

s341-0647-Supplement1.pdf
Our society is increasingly relying on the digitized, aggregated opinions of others to make decisions. We therefore designed and analyzed a large-scale randomized experiment on a social news aggregation Web site to investigate whether knowledge of such aggregates distorts decision-making. Prior ratings created significant

bias in individual rating behavior, and positive and negative social influences created asymmetric herding effects. Whereas negative social influence inspired users to correct manipulated ratings, positive social influence increased the likelihood of positive ratings by 32 % and created accumulating positive herding that increased final ratings by 25 % on average. This positive herding was topic-dependent and affected by whether individuals were viewing the opinions of friends or enemies. A mixture of changing opinion and greater turnout under both manipulations together with a natural tendency to up-vote on the site combined to create the herding effects. Such findings will help interpret collective judgment accurately and avoid social influence bias in collective intelligence in the future.

Sundwall 1948

Johannes Sundwall & A. E. Kober, *An Attempt at Assigning Phonetic Values to Certain Signs of Minoan, Linear Class B*. American Journal of Archaeology **52** (1948), 311–320.

Ventris 1940

M. G. F. Ventris, *Introducing the Minoan Language*. American Journal of Archaeology **44** (1940), 494–520.

This conception, the unity of Minoan and Etruscan within a single "Pelasgian" language, has been lying half-formed in the minds of researchers for many years past, often on the point of expression, but always held back by the apparent difficulty of demonstration, by the apparent insolubility of the problem.

That difficulty is largely illusory. It needs only a positive assertion of what the evidence has long hinted at, for the first and greatest step in Minoan decipherment to become possible. Beyond this point all that is required is hard work, and the collaboration of all workers in this field. Thus can we make up for the energies which, through a lack of direction, have been squandered on the elaboration of so many misguided interpretations.

Once a single theoretical foundation has been agreed on, based solidly on factual evidence, the initial obstacles disappear, and it is only a matter of time before a full decipherment has been achieved. In the case of Minoan this is no idle wish. It can be done.

Ventris 1953

Michael Ventris & John Chadwick, *Evidence for Greek Dialect in the Mycenaean Archives*. Journal of Hellenic Studies **73** (1953), 84–103.

JHellSt073-084-BBC1952.mp3, JHellSt073-084-Comment1.pdf, JHellSt073-084-Reply1.pdf

If our Greek transliteration is justified, it points inescapably to an archaic dialect of the 'Achaean' type; which is precisely what, on historical grounds, we should expect the inhabitants of Pylos and of Mycenae to have spoken. The name ' Achaean ' has been used to denote a hypothetical ancestor of the Arcado-Cyprian and of the Aeolic dialects, and it therefore seems the most appropriate term to use for this new dialect. To show that it is the speech of the 'Axaioi' of Homer, and not of the historical Achaea, it would perhaps be as well to follow the scholars who have referred to it as Old Achaean.

If this was the language of Nestor and of Agamemnon, then it was presumably also that of Demodokos and the poets of the time. Should we not conclude that the ' Aeolic ' stratum, which so obviously underlies the text of Homer, is not the Aeolic of Lesbos but a much older Achaean form, which had already set the conventions of epic verse within the 2nd millenium B.C.?

Attention has been drawn to similarities, especially in vocabulary, between Cyprian and Homer; but to suppose two transpositions, first from Achaean to Aeolic, and then from Aeolic to to Ionic, is stretching credulity rather far. If the original stratum was of this archaic Mycenaean type, many of the difficulties disappear. Certainly the similarities outlined above seem a powerful argument in favour of such a hypothesis. A demonstration and discussion of this theory must await a more complete knowledge of the dialect; but the suggestion will serve to show that the solution of the Minoan script will contribute to our understanding of the literature as well as of the history and religion of early Greece.

Methoden

Kober 1950

Alice E. Kober, *Les inscriptions crétoises: Essai de déchiffrement by Bedřich Hrozný; Madeleine David; Le déchiffrement des inscriptions minoennes by Vladimir Georgiev; Review.* Language **26** (1950), 286–298.

It is one thing to start by considering all the known facts, and to come to a conclusion. It is quite another to start with a preconceived idea, and try to prove it. A scholar's worst enemy is his own mind. Facts are slippery things. Almost anything can be proved with them, if they are correctly selected. A scholar should be much more concerned with finding those facts which contradict his pet theory than with those which apparently prove it, at least in the initial stages of any work.

It is unfortunate that it is only in geometry that a scholar must state his assumptions clearly before he begins his proof.

Physik

Merali 2013

Zeeya Merali, *The origins of space and time.* nature **500** (2013), 516–519.

Many researchers believe that physics will not be complete until it can explain not just the behaviour of space and time, but where these entities come from.

Pioneered by Rafael Sorkin, a physicist at the Perimeter Institute in Waterloo, Canada, the theory postulates that the building blocks of space-time are simple mathematical points that are connected by links, with each link pointing from past to future. Such a link is a bare-bones representation of causality, meaning that an earlier point can affect a later one, but not vice versa. The resulting network is like a growing tree that gradually builds up into space-time. "You can think of space emerging from points in a similar way to temperature emerging from atoms," says Sorkin. "It doesn't make sense to ask, 'What's the temperature of a single atom?' You need a collection for the concept to have meaning."

In the late 1980s, Sorkin used this framework to estimate the number of points that the observable Universe should contain, and reasoned that they should give rise to a small intrinsic energy that causes the Universe to accelerate its expansion. A few years later, the discovery of dark energy confirmed his guess. "People often think that quantum gravity cannot make testable predictions, but here's a case where it did," says Joe Henson, a quantum-gravity researcher at Imperial College London. "If the value of dark energy had been larger, or zero, causal set theory would have been ruled out."

Story or Book

Horn 2013

A Guide for the Perplexed: A Novel. nature **500** (2013), 527.

A Guide for the Perplexed: A Novel. Dara Horn. W. W. Norton (2013)

Computer science and medieval philosophy mesh in Dara Horn's accomplished novel about digital dangers and the nature of memory. Software supremo Josie Ashkenazi's program Genizah (Hebrew for 'repository of sacred texts') creates palaces of memory housing images and documents. In post-Arab Spring Cairo, she is brutally kidnapped. That headlong narrative is woven through with the real-life stories of scholar Solomon Schechter, who discovered a famous genizah in Cairo, and twelfth-century Jewish philosopher Moses Maimonedes, whose treatise gives the novel its name.