Liste erstellt am 2016-11-06

References

Aktuell

Fitch 2016

W. Tecumseh Fitch, *Sound and meaning in the world's languages.* nature **539** (2016), 39–40.

The sounds of words that represent particular meanings are usually thought to vary arbitrarily across languages. However, a large-scale study of languages finds that some associations between sound and meaning are widespread.

Henrich 2016

Joseph Henrich et al., *Understanding cumulative cultural evolution.* PNAS **113** (2016), E6724–E6725.

Joseph Henrich, Robert Boyd, Maxime Derex, Michelle A. Kline, Alex Mesoudi, Michael Muthukrishna, Adam T. Powell, Stephen J. Shennan & Mark G. Thomas

Not only do their criticisms of Henrich's (3) and Powell et al.'s (4)modeling assumptions miss their mark (2), but Vaesen et al. (1) also ignore many other models that do not rely on these assumptions yet arrive at similar predictions.

Vaesen et al. cite studies by Collard and coworkers (refs. 67, 70, 72, 73, 75, and 79 in ref. 1) that do not find a significant relationship between census population sizes and complexity. However, the theory explicitly predicts that it is the size of the population that shares information—the effective cultural population size (3)—that matters, and if there is extensive contact between local or linguistic groups, there is no reason to expect census population size to correspond to the theoretically relevant population (2). Inappropriately, Collard and coworkers used highly interconnected populations, and make no effort to measure these interconnections or deal with the conceptual problems of using census estimates (refs. 67, 70, 72, 73, 75, and 79 in ref. 1).

Schmidt 2016

Marco F. H. Schmidt & Michael Tomasello, *How chimpanzees cooperate, If dominance is artificially constrained.* PNAS **113** (2016), E6728–E6729.

In their study, Suchak et al. (1) ensured that their chimpanzees would collaborate to obtain food by designing an instrumental task controlling all of these mitigating factors: the situation was one in which there were no solo options for obtaining food (their task thus did not "loosely mimic" a stag hunt, as they claim); there was no need for collaborators to work out a way to divide the spoils after collaboration because the spoils were predivided by experimenters (so that dominants could not easily monopolize rewards, as in ref. 8); and free riders were not able to disrupt things inordinately.

In a very general sense of the term then, the chimpanzees in the Suchak et al. (1) study were cooperating [or at least some of them; see the skewed distribution of rewards among group members (10)]. The chimpanzees were working together to obtain food and managed not to let competition and aggression mess things up. This result confirms previous research. However, cooperation in a more human-like sense normally involves a free choice or preference to work with others, not

a forced situation, and a recognition that all collaborators—but not free riders—deserve their fair share of the spoils even if that means sacrificing resources oneself.

Suchak 2016

Malini Suchak & Frans B. M. de Waal, *Chimpanzees as natural team-players, Reply to Schmidt and Tomasello*. PNAS **113** (2016), E6730.

At no time did we "engineer" partner choice, as in previous studies. Under these conditions, freeloading was clearly a disruptive force, as all of the response options required victims to interrupt or abandon the task at hand. Contrary to what Schmidt and Tomasello (1) assume, the vast majority of freeloaders were bystanders (76 %), not fellow collaborators (24 %). Extraneous chimpanzees not involved in the task were often loitering near the apparatus waiting for free food.

We are most puzzled by Schmidt and Tomasello's (1) contention that we merely confirm their own earlier studies, because surely if this were the case what would be the point of criticizing our results? In fact, our findings (2) sharply contradict Schmidt and Tomasello's (1) depiction of chimpanzees as too competitive to achieve cooperation on their own.

Vaesen 2016

Krist Vaesen, Mark Collard, Richard Cosgrove & Wil Roebroeks, *The Tasmanian effect and other red herrings, Reply to Henrich et al.* PNAS **113** (2016), E6726–E6727.

Perhaps not surprisingly given their misreading of our paper, none of Henrich et al.'s points (1) contradicts our argument.

The other point we made is that the population size approach does not fare well at all in relevant empirical tests. We demonstrated that it fails in the highest profile cases in which it has been used, including the one that gave rise to the term the "Tasmanian effect." We showed that Henrich's analysis of Tasmania's archaeological and ethnographic records (5) is flawed. Subsequently, we demonstrated that the majority of studies that have tested predictions of the population size approach have not supported it.

Anthropologie

Fan 2016

Shaohua Fan, Matthew E. B. Hansen, Yancy Lo & Sarah A. Tishkoff, *Going global by adapting local, A review of recent human adaptation.* science **354** (2016), 54–59.

The spread of modern humans across the globe has led to genetic adaptations to diverse local environments. Recent developments in genomic technologies, statistical analyses, and expanded sampled populations have led to improved identification and fine-mapping of genetic variants associated with adaptations to regional living conditions and dietary practices. Ongoing efforts in sequencing genomes of indigenous populations, accompanied by the growing availability of "-omics" and ancient DNA data, promises a new era in our understanding of recent human evolution and the origins of variable traits and disease risks.

Archäologie

Härke 1989

Heinrich Härke, *Die anglo-amerikanische Diskussion zur Gräberanalyse*. Archäologisches Korrespondenzblatt **19** (1989), 185–194.

Kuckenburg 2007

Martin Kuckenburg, *Kultstätten und Opferplätze in Deutschland, Von der Steinzeit bis zum Mittelalter*. (Köln 2014).

Frühkeltische Grabhügel, germanische Moorkultstätten oder römische Quellheiligtümer – in ganz Deutschland kann man diesen geheimnisvollen Kultstätten längst versunkener Zeitalter begegnen. Der Archäologe Martin Kuckenberg bringt die rätselhaften Zeugen frühgeschichtlicher Kulturen für uns zum Sprechen. Er zeigt, wie sich religiöse Riten über die Zeit verändert haben, immer am Beispiel konkreter Kult- und Opferplätze, die auch als Ausflugstipps am Ende des Buches gelistet sind. Ein Buch wie eine Reise zu den heiligen Landschaften der deutschen Frühgeschichte.

Bibel

Clines 2016

David J. A. Clines, *The New Hezekiah Seal, Outstanding Questions*. unknown (2016), preprint, 1–16.

Scholars are not responsible for how their work is presented by journalists and others, but when a find like the Hezekiah seal is released to the press and is taken up by the media there is a danger for scholarly research that a widely circulating narrative is created that lacks adequate academic support. In this case, the media can hardly be criticized for their reporting, since in most cases they reproduce the excavators' views verbatim; nevertheless the story of Hezekiah's seal as presented throughout the media (a story that is now being reiterated by scholars) contains much that is mere claim or speculation, and lacks the nuance of a scholarly publication.

In the first place, one would be entitled to argue that it authenticates the other eight (unprovenanced) Hezekiah bullae. All of them have the same four-word inscription as the recently found bulla, whose authenticity no one is disputing. By no stretch of the imagination could a forger be postulated who created this hitherto unparalleled text לחזקיהו אחז מלך יהדה 'belonging to Hezekiah, [son of] Ahaz, king of Judah', which has now been attested on an authentic bulla.

And secondly, the discovery ought to have a marked impact on the question of the authenticity of unprovenanced bullae in general. It has always been improbable that forgers should have created low-value bullae while overlooking the salable value of the seals they would have had to manufacture first in order to create the bullae. But now the recent discovery of the Hezekiah bullae moves the discussion away from such generalities and probabilities: it makes the authenticity of unprovenanced bullae the default position, the onus of proof now lying on those who doubt their authenticity.

An even more telling argument against the suggestion that the previously published Hezekiah bullae may be fakes is the comment of Robert Deutsch; 'It is reasonable to ask whether [the Hezekiah bullae] could be fakes. The universal answer of all experts in the field is "no". It is simply impossible to fake them. The wet clay bullae were not baked at the time they were imprinted, but dried upon the documents they sealed. They hardened only in a fire that destroyed the documents the

bullae sealed. For this reason they are very fragile—and have worn during the last 2,700 years. All have small cracks and surface corrosion, and under a microscope we see small crystals in the cracks and on damaged edges and surfaces. None of this can be duplicated'.

Guillaume 2008

Philippe Guillaume, *Jerusalem 720–705 bce, No Flood of Israelite Refugees*. Scandinavian Journal of the Old Testament **22** (2008), 195–211.

Israel Finkelstein and Nadav Na'aman have recently opposed each other over the sudden growth of Jerusalem between the conquest of Samaria by Sargon and Sennacherib's campaign in 701 BCE. Was the growth so sudden that only the arrival of Israelite refugees explains it? Does a flood of refugees explain the integration of Israelite traditions into Judean texts? This article challenges the validity of the notion of refugees in the ancient world, evaluate the probability of the integration of Israelite culture during the reign of Hezekiah. Propaganda as the primary cause of the formation of Biblical texts is questioned.

Biologie

Krupenye 2016

Christopher Krupenye, Fumihiro Kano, Satoshi Hirata, Josep Call & Michael Tomasello, *Great apes anticipate that other individuals will act according to false beliefs*. science **354** (2016), 110–114.

s354-0110-Supplement.pdf

We humans tend to believe that our cognitive skills are unique, not only in degree, but also in kind. The more closely we look at other species, however, the clearer it becomes that the difference is show that three different species of apes are able to anticipate that others et al. one of degree. Krupenye may have mistaken beliefs about a situation (see the Perspective by de Waal). The apes appear to understand that individuals have different perceptions about the world, thus overturning the human-only paradigm of the theory of mind.

Humans operate with a "theory of mind" with which they are able to understand that others' actions are driven not by reality but by beliefs about reality, even when those beliefs are false. Although great apes share with humansmany social-cognitive skills, they have repeatedly failed experimental tests of such false-belief understanding. We use an anticipatory looking test (originally developed for human infants) to show that three species of great apes reliably look in anticipation of an agent acting on a location where he falsely believes an object to be, even though the apes themselves know that the object is no longer there. Our results suggest that great apes also operate, at least on an implicit level, with an understanding of false beliefs.

de Waal 2016

Frans B. M. de Waal, *Apes know what others believe*. science **354** (2016), 39–40.

Understanding false beliefs is not unique to humans.

In one scenario, an ape sees KK steal an object from a human actor and hide it under one of two boxes, say the one on the left. KK then chases off the human and secretly rehides the object under the box on the right. After this, KK takes the object away and leaves the scene. The human actor now returns to search for

the object while an infrared eye-tracker measures precisely which parts of the video the ape subject pays attention to. Even though the ape knows that both boxes are empty, he should expect the human to go to the left-hand box, where he last saw the item being put. Eye-tracking shows that the apes correctly anticipate the human searching pattern, despite the discrepancy with their own knowledge.

Energie

Gies 2016

Erica Gies, *Can wind and solar fuel Africa's future?* nature **539** (2016), 20–22.

With prices for renewables dropping, many countries in Africa might leap past dirty forms of energy towards a cleaner future.

Klima

Fleitmann 2007

Dominik Fleitmann et al., *Holocene ITCZ and Indian monsoon dynamics recorded in stalagmites from Oman and Yemen (Socotra).* Quaternary Science Reviews **26** (2007), 170–188.

Dominik Fleitmann, Stephen J. Burns, Augusto Mangini, Manfred Mudelsee, Jan Kramers, Igor Villa, Ulrich Neff, Abdulkarim A. Al-Subbary, Annett Buettner, Dorothea Hippler & Albert Matter

High-resolution oxygen isotope (d18O) profiles of Holocene stalagmites from four caves in Northern and Southern Oman and Yemen (Socotra) provide detailed information on fluctuations in precipitation along a latitudinal transect from 121N to 231N. d18O values reflect the amount of precipitation which is primarily controlled by the mean latitudinal position of the ITCZ and dynamics of the Indian summer monsoon (ISM). During the early Holocene rapidly decreasing d18O values indicate a rapid northward displacement in the mean latitudinal position of the summer ITCZ and the associated ISM rainfall belt, with decadal- to centennial-scale changes in monsoon precipitation correlating well with high-latitude temperature variations recorded in Greenland ice cores. During the middle to late Holocene the summer ITCZ continuously migrated southward and monsoon precipitation decreased gradually in response to decreasing solar insolation, a trend, which is also recorded in other monsoon records from the Indian and East Asian monsoon domains. Importantly, there is no evidence for an abrupt middle Holocene weakening in monsoon precipitation. Although abrupt monsoon events are apparent in all monsoon records, they are short-lived and clearly superimposed on the long-term trend of decreasing monsoon precipitation. For the late Holocene there is an anti-correlation between ISM precipitation in Oman and inter-monsoon (spring/autumn) precipitation on Socotra, revealing a possible long-term change in the duration of the summer monsoon season since at least 4.5 ka BP. Together with the progressive shortening of the ISM season, gradual southward retreat of the mean summer ITCZ and weakening of the ISM, the total amount of precipitation decreased in those areas located at the northern fringe of the Indian and Asian monsoon domains, but increased in areas closer to the equator.

Schmiedl 2010

Gerhard Schmiedl et al., *Climatic forcing of eastern Mediterranean deep-water formation and benthic ecosystems during the past 22 000 years*. Quaternary Science Reviews **29** (2010), 3006–3020.

Gerhard Schmiedl, Tanja Kuhnt, Werner Ehrmann, Kay-Christian Emeis, Yvonne Hamann, Ulrich Kotthoff, Peter Dulski & Jörg Pross

Lateglacial and Holocene faunal and stable-isotope records from benthic foraminifers in the eastern Mediterranean Sea (EMS) suggest a high spatiotemporal variability of deep-water oxygenation and biogeochemical processes at the sea floor during that time. Changes in the oxygenation and food availability of the deep-sea ecosystems are closely linked to the hydrology of the EMS borderlands; they reflect orbital and suborbital climate variations of the high northern latitudes and the African monsoon system. During the last glacial maximum, cool surface waters and high evaporation resulted in maximum convection and oxic deep-waters in all sub-basins. Strong wind-induced mixing fostered surface-water production with seasonal phytodetritus fluxes. During the glacial termination and the Holocene, oxygenation and food availability of deep-sea benthic ecosystems were characterized by a pronounced regional differentiation. Local deep-water formation and trophic conditions were particularly variable in the northern Aegean Sea as a response to changes in riverine runoff and Black Sea outflow. During the interval of sapropel S1 formation in the early Holocene, average oxygen levels decreased exponentially with increasing water depth, suggesting a basin-wide shallowing of vertical convection superimposed by local signals. In the northernmost Aegean Sea, deep-water ventilation persisted during the early period of S1 formation, owing to temperature-driven local convection and the absence of low-salinity Black Sea outflow. At the same time, severe temporary anoxia occurred in the eastern Levantine basin at water depths as shallow as 900 m. This area was likely influenced by enhanced nutrient input of the Nile river that resulted in high organic matter fluxes and related high oxygen-consumption rates in the water column. In the southern Aegean and Levantine Seas, we observe a gradual increase in deep-water residence times, preceding S1 formation by approximately 1–1.5 kyr. Once oxygen levels fell below a critical threshold, the benthic ecosystems collapsed almost synchronously with the onset of S1 deposition. The recovery of benthic ecosystems during the terminal phase of S1 formation is controlled by subsequently deeper convection and re-ventilation over a period of approximately 1500 years. After the re-ventilation of the various sub-basins had been completed during the middle and late Holocene, deep-water renewal was more or less similar to recent rates. During that time, deep-sea ecosystem variability was driven by short-term changes in food quantity and quality as well as in seasonality, all of which are linked to millennial-scale changes in riverine runoff and associated nutrient input.

Kultur

Lichter 2003

Clemens Lichter, *Kontinuität und Wandel in den Bestattungssitten der Jungstein- und Kupferzeit im Karpatenbecken*. Das Altertum **48** (2003), 105–128.

Die mit dem Tod eines Menschen verbundenen Praktiken und Riten, insbesondere die mit dem Bestattungsvorgang verbundenen Handlungen werden in der prähistorischen Archäologie als Sitten bezeichnet. Deren Analyse offenbart nicht nur Einblicke in die Sozialstruktur sondern auch kulturspezifische Charakteristika. Ein Vergleich dieser kulturspezifischeri Elemente macht genetische Beziehungen

und Verbindungen zwischen den verschiedenen Kulturgruppen in Raum und Zeit sichtbar. Die Bestattungssitten der jungstein- und kupferzeitlichen Kulturen des Karpatenbeckens spiegeln dabei das Bild eines sich kontinuierlich verändernden Kulturraumes iouler, in dem regionalspezifische Elemente über lange Zeiträume verfolgt und beobachtet werden können.

Kupfer

Berger 2016

Daniel Berger, Gerhard Brügmann, Elin Figueiredo & Ernst Pernicka, *Zinnisotopenverhältnisse von Verhüttungsprodukten von Kassiterit und ihre Bedeutung für die Herkunftsbestimmung von Zinn*. Metalla (2016), Sonderheft 8, 194–197.

Inwieweit andere pyrometallurgische Prozesse wie Gießen und Wiederaufschmelzen (Recycling) Einfluss auf die Isotopen haben, ist derzeit Gegenstand weiterer Forschungen.

Marahrens 2016

J. Marahrens, D. Berger, G. Brügmann & E. Pernicka, *Vergleich der stabilen Zinn-Isotopenzusammensetzung von Kassiteriten aus europäischen Zinn-Lagerstätten*. Metalla (2016), Sonderheft 8, 190–193.

Vergleicht man die Kassiterite aus Cornwall und dem Erzgebirge, fällt auf, dass sich die beiden Provinzen hinsichtlich ihrer Zinnisotopenzusammensetzung nicht unterscheiden lassen. Demnach scheint auch eine Unterscheidung der einzelnen Lagerstättengebiete innerhalb Cornwalls und des Erzgebirges kaum möglich. Die sekundären Erze müssen noch detaillierter untersucht werden.

Metallzeiten

Koch 2014

Ido Koch, *Goose Keeping, Elite Emulation and Egyptianized Feasting at Late Bronze Lachish*. Tel Aviv: Archaeology **41** (2014), 161–179.

The paper examines an assemblage of goose (Anser sp.) bones found in Late Bronze levels at Lachish and discusses its historical and cultural context. The appearance of an Egyptian trait—the keeping and consumption of waterfowl—is not surprising at Lachish, where a vast amount of Aegyptiaca was unearthed. The assemblage is interpreted not according to the common assumption regarding an Egyptian presence at Lachish but rather as attesting to the local elite that was influenced by the long-term Egyptian hegemony over Canaan. Based on contemporaneous comparanda, the author argues that this local elite adopted the Egyptian trait of goose keeping and adapted it to its own needs of communal feasting—and thus presented themselves as Egyptian.

Keywords: Lachish | Elite emulation | Late Bronze Age | Egyptian empire

Neolithikum

Peters 2005

Joris Peters, Angela von den Driesch & Daniel Helmer, *The upper Euphrates-Tigris basin: cradle of agro-pastoralism?* In: J.-D.

Vigne, J. Peters & D. Helmer (Hrsg.), *First Steps of Animal Domestication – New archaeozoological approaches*, *Proceedings of the 9th Conference of the International Council of Archaeozoology, Durham, August 2002*. (Oxford 2005), 96–124.

On present archaeozoological evidence, it can be assumed that the inhabitants of the northern Fertile Crescent participated in the process of animal domestication. Domestic sheep and possibly goat may have been present here from the late Early PPNB onward. In the course of the Middle PPNB, pigs and cattle likely acquired a domestic status in the Upper Euphrates basin. In view of the somewhat earlier dates for domestic stock compared to the western and eastern arc, the PPN inhabitants of the northern Fertile Crescent may be assumed to have played a key role in the process of ungulate domestication and diffusion of animal husbandry.

Conceivably, the most revolutionary step in the development of Southwest Asian agro-pastoralism has been the integration of livestock husbandry into the production of grain crops. It can now be postulated that the two modes of food production did not originate in geographically different regions to become integrated at a later stage, but likely emerged together in the northern Fertile Crescent in the 9th millennium cal. BC. It was the nutritional complementarity and productivity of the crop-livestock combination that promoted the diffusion of agropastoralism throughout the Fertile Crescent, changing it into a region of village farmers by the end of the 7th millennium cal. BC.

Siebert 2016

Angelina Siebert, Corina Knipper, Nicole Nicklisch, Susanne Friederich & Kurt W. Alt, *Wandel der Ernährungsweise in Mitteldeutschland zwischen 5500 und 1600 v. Chr.* Archäologie in Deutschland **2016**, iv, 24–25.

Eine groß angelegte Isotopenstudie aus Mitteldeutschland zeigt einen bedeutenden Anstieg des Stellenwerts tierischen Proteins in der menschlichen Nahrung während des Neolithikums bis in die Frühbronzezeit. Die Ernährung der ersten Bauern war sehr stark von Getreide geprägt. Erst im Laufe der Zeit fanden mehr Fleisch und möglicherweise auch Milchprodukte Eingang in den Speiseplan.

Ozeanien

Gibbons 2016

Ann Gibbons, *First Polynesians launched from East Asia to settle Pacific*. science **354** (2016), 24–25.

“Game-changing” study of ancient genomes traces Polynesian roots solely to East Asian farmers.

By showing that the East Asians hopscotched past islands already populated by Melanesians without picking up their genes, it is also a case study in how culture can initially bar mixing between groups. “Farmers move in and don’t mix much with the huntergatherers,” says evolutionary geneticist Mark Thomas of University College London. “We see this again and again and again” elsewhere in the world.

Religion

van Eyghen 2016

Hans van Eyghen, *Religious Belief is Not Natural, Why Cognitive Science of Religion Does Not Show That Religious Belief is Trustworthy.* Studia Humana **5** (2016), iv, 34–44.

It is widely acknowledged that the new emerging discipline cognitive science of religion has a bearing on how to think about the epistemic status of religious beliefs. Both defenders and opponents of the rationality of religious belief have used cognitive theories of religion to argue for their point. This paper will look at the defender-side of the debate. I will discuss an often used argument in favor of the trustworthiness of religious beliefs, stating that cognitive science of religion shows that religious beliefs are natural and natural beliefs ought to be trusted in the absence of counterevidence. This argument received its most influential defense from Justin Barrett in a number of papers, some in collaboration with Kelly James Clark. I will discuss their version of the argument and argue that it fails because the natural beliefs discovered by cognitive scientists of religion are not the religious beliefs of the major world religions. A survey of the evidence from cognitive science of religion will show that cognitive science does show that other beliefs come natural and that these can thus be deemed trustworthy in the absence of counterevidence. These beliefs are teleological beliefs, afterlife beliefs and animistic theistic beliefs.

Keywords: cognitive science of religion | religious epistemology | trustworthiness | reformed epistemology | natural beliefs.

Story or Book

Easton 2016

Tom Easton & Jack McDevitt, *Blood Will Tell, Family ties.* nature **539** (2016), 132.

The old guy was still sitting there, waiting for his response. But it was ridiculous. Time travel wasn't possible. "You have got to be pulling my leg."

Livio 2016

Mario Livio, *The folly of fashionable thinking.* science **354** (2016), 44.

A physicist casts a critical eye on popular ideas in cosmology, quantum mechanics, and string theory.

Fashion, Faith, and Fantasy in the New Physics of the Universe. Roger Penrose. Princeton University Press, 2016. 519 pp.

As in his previous books, Penrose's concept of what constitutes a "popular" science book is somewhat different from that of most other science writers. Accordingly, even though much of the mathematics is pushed to appendices, uninitiated readers will probably find this book challenging. Those who put in the required effort, however, will be amply rewarded by the, dare I say, "fantastic" ideas of an original thinker with an unparalleled geometrical intuition.

Robinson 2016

Andrew Robinson, *Calligraphic conundrum.* nature **539** (2016), 28–29.

Andrew Robinson relishes a new volume on a work that has long defied decoders.

The Voynich Manuscript. Edited by Raymond Clemens. Yale University Press: 2016.

The high-quality colour facsimile makes up most of the book. Each page, including foldouts, is reproduced at almost its original size (around 23 × 16 centimetres). Wisely, little space is devoted to the many speculative theories of origin and meaning. The manuscript has been cast, for instance, as a Middle High German hygiene manual written in 'mirror writing' — the technique used by Leonardo da Vinci — and as a herbal manuscript in the Aztec language Nahuatl. (Readers with a taste for these can consult The Voynich Manuscript (Orion, 2004), a study by Gerry Kennedy and Rob Churchill.) And no new decipherment is offered. What hope is there of decoding the script? Not much at present, I fear. The Voynich manuscript reminds me of another uncracked script, on the Phaistos disc from Minoan Crete, discovered in 1908. The manuscript offers much more text to analyse than does the disc, but in each case there is only one sample to work with, and no reliable clue as to the underlying language.