Liste erstellt am 2011-03-12

Literatur

Aktuell

Baadsgaard 2011

Aubrey Baadsgaard, Janet Monge, Samantha Cox & Richard L. Zettler, *Human sacrifice and intentional corpse preservation in the Royal Cemetery of Ur*. Antiquity **85** (2011), 27–42.

The Royal Tombs at Ur have been long famous for their chilling scenario of young soldiers and courtesans who loyally took poison to die with their mistress. The authors investigate two of the original skulls with CT scans and propose a procedure no less chilling, but more enforceable. The victims were participants in an elaborate funerary ritual during which they were felled with a sharp instrument, heated, embalmed with mercury, dressed and laid ceremonially in rows.

Keywords: Iraq, Ur, Bronze Age, burial rites, inhumation, cremation, ritual, human sacrifice

Brumfiel 2011

Geoff Brumfiel, *Beautiful theory collides with smashing particle data*. nature **471** (2011), 13–14.

Latest results from the LHC are casting doubt on the theory of supersymmetry.

Crawford 2011

Sally Crawford & Katharina Ulmschneider, *Paul Jacobsthal's Early Celtic Art, his anonymous co-author, and National Socialism: new evidence from the archives*. Antiquity **85** (2011), 129–141.

Colleagues who find the current climate inhibiting to pure scholarship and authors eager to see their name in print should read this: an ultimately uplifting account of Jacobsthal's struggle to establish one of the foundations of European archaeology at a time of grave political persecution. Not the least of the achievements of this paper is the definitive rehabilitation of the lost coauthor of Early Celtic Art, Eduard Neuffer, whose name never appeared on the cover and whose contribution was perforce unrecognised.

Keywords: Europe, Iron Age, Celtic art, Jacobsthal, biography

Edgerton 2011

David Edgerton, *In praise of Luddism*. nature **471** (2011), 27–29.

Two centuries on from the Luddite insurrection, David Edgerton celebrates today's most important opponents to new ideas, inventions and innovations: scientists.

Editorial 2011

Dark rumblings. nature **471** (2011), 6.

The Large Hadron Collider is stirring up trouble, and that's good news for science. Comparison can remind us of something that is easily overlooked: the negative results now coming out of the LHC should be just as stimulating as any positive findings. Michelson and Morley's experiment, and others like it, eventually led Albert Einstein to axiomatically accept that light travelled at a constant speed and could be both a wave and a particle. Those revelations never really disproved Maxwell's theories, but they did help to develop special relativity and quantum mechanics - the two greatest theories of the twentieth century.

Griffiths 2011

Thomas L. Griffiths, *Rethinking language: How probabilities shape the words we use*. PNAS **108** (2011), 3825–3826.

This framework is based on the "Uniform Information Density" hypothesis: the idea that human languages follow the optimal strategy for communicating information through a noisy channel, by transmitting information at a constant rate that matches the capacity of the channel. A crude analogy might be to imagine communication in terms of pumping oil along a fragile pipe. If you pump too slowly, it takes too long; pumping too quickly risks breaking the pipe; and varying the rate of flow is either inefficient or dangerous. The best strategy is to pump at a constant level set by the capacity of the pipe. In the case of language, we are pumping words at one another; the time it takes to send a word along the pipe is determined by its length, and the capacity of the pipe is determined by the rate at which we can process linguistic information. The best solution is to send information at a constant rate, which means that less predictable words, those that carry more information, should be longer.

Pearson 2011

Helen Pearson, *Study of a Lifetime*. nature **471** (2011), 20–24.

In 1946, scientists started tracking thousands of British children born during one cold March week. On their 65th birthday, the study members find themselves more scientifically valuable then ever before.

Rohn 2011

Jennifer Rohn, *Give postdocs a career, not empty promises*. nature **471** (2011), 7.

To avoid throwing talent on the scrap heap and to boost prospects, a new type of scientific post for researchers is needed, says Jennifer Rohn. An alternative career structure within science that professionalizes mature postdocs would be better. Permanent research staff positions could be generated and filled with talented and experienced postdocs who do not want to, or cannot, lead a research team - a job that, after all, requires a different skill set. Every academic lab could employ a few of these staff along with a reduced number of trainees. Although the permanent staff would cost more, there would be fewer needed: a researcher with 10-20 years experience is probably at least twice as efficient as a green trainee.

Smyth 2011

R. M. D. Smyth, J. J. Kirkham, A. Jacoby, D. G. Altman, C. Gamble & P. R. Williamson, *Frequency and reasons for outcome reporting bias in clinical trials: interviews with trialists*. British Medical Journal (2011) preprint, 1–12. <http://dx.doi.org/10.1136/bmj.c7153>.

Objectives To provide information on the frequency and reasons for outcome reporting bias in clinical trials.

Design Trial protocols were compared with subsequent publication(s) to identify any discrepancies in the outcomes reported, and telephone interviews were conducted with the respective trialists to investigate more extensively the reporting of the research and the issue of unreported outcomes.

Participants Chief investigators, or lead or coauthors of trials, were identified from two sources: trials published since 2002 covered in Cochrane systematic reviews where at least one trial analysed was suspected of being at risk of outcome reporting bias (issue 4, 2006; issue 1, 2007, and issue 2, 2007 of the Cochrane library); and a random sample of trial reports indexed on PubMed between August 2007 and July 2008.

Setting Australia, Canada, Germany, the Netherlands, New Zealand, the United Kingdom, and the United States.
Main outcome measures Frequency of incomplete outcome reporting-signified by outcomes that were specified in a trial's protocol but not fully reported in subsequent publications-and trialists' reasons for incomplete reporting of outcomes.
Results 268 trials were identified for inclusion (183 from the cohort of Cochrane systematic reviews and 85 from PubMed). Initially, 161 respective investigators responded to our requests for interview, 130 (81 %) of whom agreed to be interviewed. However, failure to achieve subsequent contact, obtain a copy of the study protocol, or both meant that final interviews were conducted with 59 (37 %) of the 161 trialists. Sixteen trial investigators failed to report analysed outcomes at the time of the primary publication, 17 trialists collected outcome data that were subsequently not analysed, and five trialists did not measure a prespecified outcome over the course of the trial. In almost all trials in which prespecified outcomes had been analysed but not reported (15/16, 94 %), this under-reporting resulted in bias. In nearly a quarter of trials in which prespecified outcomes had been measured but not analysed (4/17, 24 %), the "direction" of the main findings influenced the investigators' decision not to analyse the remaining data collected. In 14 (67 %) of the 21 randomly selected PubMed trials, there was at least one unreported efficacy or harm outcome. More than a quarter (6/21, 29 %) of these trials were found to have displayed outcome reporting bias.
Conclusion The prevalence of incomplete outcome reporting is high. Trialists seemed generally unaware of the implications for the evidence base of not reporting all outcomes and protocol changes. A general lack of consensus regarding the choice of outcomes in particular clinical settings was evident and affects trial design, conduct, analysis, and reporting.

Anthropologie

Pritchard 1999

Jonathan K. Pritchard, Mark T. Seielstad, Anna Perez-Lezaun & Marcus W. Feldman, *Population Growth of Human Y Chromosomes: A Study of Y Chromosome Microsatellites*. Molecular Biology and Evolution **16** (1999), 1791–1798.

We use variation at a set of eight human Y chromosome microsatellite loci to investigate the demographic history of the Y chromosome. Instead of assuming a population of constant size, as in most of the previous work on the Y chromosome, we consider a model which permits a period of recent population growth. We show that for most of the populations in our sample this model fits the data far better than a model with no growth. We estimate the demographic parameters of this model for each population and also the time to the most recent common ancestor. Since there is some uncertainty about the details of the microsatellite mutation process, we consider several plausible mutation schemes and estimate the variance in mutation size simultaneously with the demographic parameters of interest. Our finding of a recent common ancestor (probably in the last 120,000 years), coupled with a strong signal of demographic expansion in all populations, suggests either a recent human expansion from a small ancestral population, or natural selection acting on the Y chromosome.

Biologie

Wilson 2007

David Sloan Wilson, *Rethinking the Theoretical Foundation of Sociobiology*. Quarterly Review of Biology **82** (2007), 327–348.

Current sociobiology is in theoretical disarray, with a diversity of frameworks that are poorly related to each other. Part of the problem is a reluctance to revisit the pivotal events that took place during the 1960s, including the rejection of group selection and the development of alternative theoretical frameworks to explain the evolution of cooperative and altruistic behaviors. In this article, we take a "back to basics" approach, explaining what group selection is, why its rejection was regarded as so important, and how it has been revived based on a more careful formulation and subsequent research. Multilevel selection theory (including group selection) provides an elegant theoretical foundation for sociobiology in the future, once its turbulent past is appropriately understood.

Grundlagen

Kokalj 2011

Žiga Kokalj, Klemen Zakšek & Krištof Oštir, *Application of sky-view factor for the visualisation of historic landscape features in lidar-derived relief models*. Antiquity **85** (2011), 263–273.

Aerial mapping and remote sensing takes another step forward with this method of modelling lidar data. The usual form of presentation, hill shade, uses a point source to show up surface features. Sky-view factor simulates diffuse light by computing how much of the sky is visible from each point. The result is a greatly improved visibility - as shown here by its use on a test site of known topography in Slovenia.

Keywords: sky-view factor, relief visualisation, historic landscape, airborne laser scanning, lidar

Mazar 1992

Amihai Mazar, *Archaeology of the Land of the Bible, 10 000–586* B.C.E. Anchor Bible Reference Library (London 1992).

Klima

Fujita 2011

Koji Fujita, *Another Antarctic rhythm*. nature **471** (2011), 45–46.

A novel explanation for the long-term temperature record in Antarctic ice cores invokes local solar radiation as the driving agent. This proposal will prompt palaeoclimate scientists to pause and to go back to basics.

In the same way that an ill-fitting piece of a jigsaw puzzle can be disconcerting, this pseudo-rhythm will be discomfiting to those who study palaeoclimate and climate dynamics. 'Is the signal I see really created by climate change?', is a question they will have to ask themselves. And they will need to take a hard look at the principles on which their data are founded. The relationship between the isotopes in water and air temperature, for instance, is based on geographical (spatial) observations only. But its temporal variability has not been confirmed at any ice-core drilling sites in inland Antarctica, even by observations on an annual timescale. Sometimes, in science as in life, it is necessary to pause in order to make progress.

Laepple 2011

Thomas Laepple, Martin Werner & Gerrit Lohmann, *Synchronicity of Antarctic temperatures and local solar insolation on orbital timescales*. nature **471** (2011), 91–94.

n471-0091-Supplement.pdf

The Milankovitch theory states that global climate variability on orbital timescales from tens to hundreds of thousands of years is dominated by the summer insolation at high northern latitudes1,2. The supporting evidence includes reconstructed air temperatures in Antarctica that are nearly in phase with boreal summer insolation and out of phase with local summer insolation3-5. Antarctic climate is therefore thought to be driven by northern summer insolation5. A clear mechanism that links the two hemispheres on orbital timescales is, however, missing. We propose that key Antarctic temperature records derived from ice cores are biased towards austral winter because of a seasonal cycle in snow accumulation. Using present-day estimates of this bias in the 'recorder' system, here we show that the local insolation can explain the orbital component of the temperature record without having to invoke a link to the Northern Hemisphere. Therefore, the Antarctic ice-core-derived temperature record, one of the best-dated records of the late Pleistocene temperature evolution, cannot be used to support or contradict the Milankovitch hypothesis that global climate changes are driven by Northern Hemisphere summer insolation variations.

Nelson 2011

Daniel B. Nelson et al., *Drought variability in the Pacific Northwest from a 6,000-yr lake sediment record*. PNAS **108** (2011), 3870–3875.

Daniel B. Nelson, Mark B. Abbott, Byron Steinman, Pratigya J. Polissar, Nathan D. Stansell, Joseph D. Ortiz, Michael F. Rosenmeier, Bruce P. Finney and Jon Riedel
We present a 6,000-yr record of changing water balance in the Pacific Northwest inferred from measurements of carbonate d18O and grayscale on a sediment core collected from Castor Lake, Washington. This subdecadally resolved drought record tracks the 1,500-yr tree-ring-based Palmer Drought Severity Index reconstructions of Cook et al. [Cook ER, Woodhouse CA, Eakin CM, Meko DM, Stahle DW (2004) Science 306:1015-1018] in the Pacific Northwest and extends our knowledge back to 6,000 yr B.P. The results demonstrate that low-frequency drought/pluvial cycles, with occasional long-duration, multidecadal events, are a persistent feature of regional climate. Furthermore, the average duration of multidecadal wet/dry cycles has increased since the middle Holocene, which has acted to increase the amplitude and impact of these events. This is especially apparent during the last 1,000 yr. We suggest these transitions were driven by changes in the tropical and extratropical Pacific and are related to apparent intensification of the El Niño Southern Oscillation over this interval and its related effects on the Pacific Decadal Oscillation. The Castor Lake record also corroborates the notion that the 20th century, prior to recent aridity, was a relatively wet period compared to the last 6,000 yr. Our findings suggest that the hydroclimate response in the Pacific Northwest to future warming will be intimately tied to the impact of warming on the El Niño Southern Oscillation.
lake sediment | oxygen isotope

Kultur

Flannery 2003

Kent V. Flannery & Joyce Marcus, *The origin of war: New* ^{14}C *dates from ancient Mexico*. PNAS **100** (2003), 11801–11805.

New 14C dates from archaeological sites in Oaxaca, Mexico, support R. C. Kelly's observation that intervillage raiding may begin as soon as a region has segmentary societies. The oldest defensive palisade dates to 3260-3160 B.P. in conventional radiocarbon years, only a few centuries after village life was established. Over the next millennium raiding evolved into war, with residences and temples burned, captives killed, and populations moving to defensible hills. 14C dates are now available for the first use of hieroglyphic writing to record a captive's name, military victories leading to the consolidation of the Zapotec state, the first skull rack, and the building of a fortress in conquered territory.

Spencer 2003

Charles S. Spencer, *War and early state formation in Oaxaca, Mexico.* PNAS **100** (2003), 11185–11187.

Mittelpaläolithikum

Peresani 2011

Marco Peresani, Ivana Fiore, Monica Gala, Matteo Romandini & Antonio Tagliacozzo, *Late Neandertals and the intentional removal of feathers as evidenced from bird bone taphonomy at Fumane Cave 44 ky B.P., Italy.* PNAS **108** (2011), 3888–3893.

pnas108-03888-Supplement.pdf

A large and varied avifaunal bone assemblage from the final Mousterian levels of Grotta di Fumane,northernItaly, reveals unusual human modifications on species that are not clearly relatable to feeding or utilitarian uses (i.e., lammergeier, Eurasian black vulture, golden eagle, red-footed falcon, common wood pigeon, and Alpine chough). Cut, peeling, and scrape marks, as well as diagnostic fractures and a breakthrough, are observed exclusively onwings, indicating the intentional removal of large feathers by Neandertals. The species involved, the anatomical elements affected, and the unusual type and location of the human modifications indicate an activity linked to the symbolic sphere and the behavioral modernity of this European autochthonous population.

cut marks | raptors | symbolism | Middle Paleolithic

Religion

Barrett 1996

Justin L. Barrett & Frank C. Keil, *Conceptualizing a Nonnatural Entity: Anthropomorphism in God Concepts.* Cognitive Psychology **31** (1996), 219–247.

We investigate the problem of how nonnatural entities are represented by examining university students' concepts of God, both professed theological beliefs and concepts used in comprehension of narratives. In three story processing tasks, subjects often used an anthropomorphic God concept that is inconsistent with stated theological beliefs; and drastically distorted the narratives without any awareness of doing so. By heightening subjects' awareness of their theological beliefs, we were able to manipulate the degree of anthropomorphization. This tendency to anthropomorphize may be generalizable to other agents. God (and possibly other agents) is unintentionally anthropomorphized in some contexts, perhaps as a means of representing poorly understood nonnatural entities.

Bering 2005

Jesse M. Bering & Dominic D. P. Johnson, *"O Lord . . . You Perceive my Thoughts from Afar": Recursiveness and the Evolution of Supernatural Agency.* Journal of Cognition and Culture **5** (2005), 118–142.

Across religious belief systems, some supernatural agents are nearly always granted privileged epistemic access into the self's thoughts. In addition, the ethnographic literature supports the claim that, across cultures, supernatural agents are envisioned as (1) incapable of being deceived through overt behaviors; (2) preoccupied with behavior in the moral domain; (3) punitive agents who cause general misfortune to those who transgress and; (4) committed to an implicit social contract with believers that is dependent on the rules of reciprocal altruism. The present article examines the possibility that these factors

comprise a developmentally based, adaptive information-processing system that increased the net genetic fitness of ancestral human beings living within complex social groups. In particular, the authors argue that fear of supernatural punishment, whether in this life or in the hereafter, encouraged the inhibition of selfish actions that were associated with "real" punishment (and thus real selective impairments) by actual group members.
Keywords: Evolutionary theory, theory of mind, cognitive development, morality, intentionality, cooperation, reciprocal altruism.

Boyer 2001

Pascal Boyer & Charles Ramble, *Cognitive templates for religious concepts: cross-cultural evidence for recall of counter-intuitive representations*. Cognitive Science **25** (2001), 535–564.
Presents results of free-recall experiments conducted in France, Gabon and Nepal, to test predictions of a cognitive model of religious concepts. The world over, these concepts include violations of conceptual expectations at the level of domain knowledge (e.g., about 'animal' or 'artifact' or 'person') rather than at the basic level. In five studies we used narratives to test the hypothesis that domain-level violations are recalled better than other conceptual associations. These studies used material constructed in the same way as religious concepts, but not used in religions familiar to the subjects. Experiments 1 and 2 confirmed a distinctiveness effect for such material. Experiment 3 shows that recall also depends on the possibility to generate inferences from violations of domain expectations. Replications in Gabon (Exp. 4) and Nepal (Exp. 5) showed that recall for domain-level violations is better than for violations of basic-level expectations. Overall sensitivity to violations is similar in different cultures and produces similar recall effects, despite differences in commitment to religious belief, in the range of local religious concepts or in their mode of transmission. However, differences between Gabon and Nepal results suggest that familiarity with some types of domain-level violations may paradoxically make other types more salient. These results suggest that recall effects may account for the recurrent features found in religious concepts from different cultures.
Keywords: Religion; Concepts; Recall; Distinctiveness

Boyer 2003

Pascal Boyer, *Religious thought and behaviour as by-products of brain function*. Trends in Cognitive Sciences **7** (2003), 119–124.
Religious concepts activate various functionally distinct mental systems, present also in non-religious contexts, and 'tweak' the usual inferences of these systems. They deal with detection and representation of animacy and agency, social exchange, moral intuitions, precaution against natural hazards and understanding of misfortune. Each of these activates distinct neural resources or families of networks. What makes notions of supernatural agency intuitively plausible? This article reviews evidence suggesting that it is the joint, coordinated activation of these diverse systems, a supposition that opens up the prospect of a cognitive neuroscience of religious beliefs.

D'Onofrio 1999

Brian M. D'Onofrio, Lindon J. Eaves, Lenn Murrelle, Hermine H. Maes & Bernard Spilka, *Understanding Biological and Social Influences on Religious Affiliation, Attitudes, and Behaviors: A Behavior Genetic Perspective*. Journal of Personality **67** (1999), vi, 954–984.
Although the transmission of religiousness has been assumed to be purely cultural, behavior genetic studies have demonstrated that genetic factors play a role in the individual differences in some religious traits. This article reviews the extant behavior genetic literature and presents new analyses from the "Virginia 30,000" on the causes of variation in

religious affiliation, attitudes, and practices, and relates these to personality as construed by Eysenck. Results indicate that religious affiliation is primarily a culturally transmitted phenomenon, whereas religious attitudes and practices are moderately influenced by genetic factors. Further, Eysenck's personality traits do not mediate genetic influences on religiousness, but significant negative genetic correlations are found between church attendance and liberal sexual attitudes. Implications and possibilities for future studies are discussed.

Fogelin 2007

Lars Fogelin, *The Archaeology of Religious Ritual*. Annual Review of Anthropology **36** (2007), 55–71.

Archaeologists traditionally assumed that rituals were understood best in light of religious doctrines, beliefs, and myths. Given the material focus of archaeology, archaeologists believed that ritual was a particularly unsuitable area for archaeological inquiry. In the past 25 years, archaeologists have increasingly started to address ritual in their research. Some archaeologists with access to extensive historical or ethnohistorical sources continue to see rituals as the enactment of religious principles or myths. Other archaeologists have adopted a more practice-oriented understanding of ritual, arguing that ritual is a form of human action. In emphasizing ritual practice, archaeologists reject a clear dichotomy between religious and nonreligious action or artifacts, focusing instead on the ways that the experience of ritual and ritual symbolism promotes social orders and dominant ideologies. Key Words: structure, practice, power, symbolism

Koenig 2005

Laura B. Koenig, Matt McGue, Robert F. Krueger & Thomas J. Bouchard, Jr., *Genetic and Environmental Influences on Religiousness: Findings for Retrospective and Current Religiousness Ratings*. Journal of Personality **73** (2005), ii, 471–488.

Estimates of the degree of genetic and environmental influences on religiousness have varied widely. This variation may, in part, be due to age differences in the samples under study. To investigate the heritability of religiousness and possible age changes in this estimate, both current and retrospective religiousness were assessed by self-report in a sample of adult male twins (169 MZ pairs and 104 DZ pairs, mean age of 33 years). Retrospective reports of religiousness showed little correlation difference between MZ (r5.69) and DZ (r5.59) twins. Reports of current religiousness, however, did show larger MZ (r5.62) than DZ (r5.42) similarity. Biometric analysis of the two religiousness ratings revealed that genetic factors were significantly weaker (12 % vs. 44 %) and shared environmental factors were significantly stronger (56 % vs. 18 %) in adolescence compared to adulthood. Analysis of internal and external religiousness subscales of the total score revealed similar results. These findings support the hypothesis that the heritability of religiousness increases from adolescence to adulthood.

Lewis-Williams 1988

J. D. Lewis-Williams & T. A. Dowson, *The Signs of All Times, Entoptic Phenomena in Upper Palaeolithic Art*. Current Anthropology **29** (1988), 219–245.

Comments by: Paul G. Bahn, H.-G. Bandi, Robert G. Bednarik, John Clegg, Mario Consens, Whitney Davis, Brigitte Delluc, Gilles Delluc, Paul Faulstich, John Halverson, Robert Layton, Colin Martindale, Vil Mirimanov, Christy G. Turner II, Joan M. Vastokas, Michael Winkelman, Alison Wylie

Elucidation of the geometric signs in Upper Palaeolithic art is hampered by an absence of directly relevant ethnography and by the logical impossibility of inducing meaning from

numerical rock-art data. This paper approaches the signs by constructing a neuropsychological model of the apprehension of entoptic phenomena in three stages of altered states of consciousness. The utility of the model is assessed by applying it to two known shamanistic rock arts, San and Shoshonean Coso. It is then applied to Upper Palaeolithic mobile and parietal art to show that this art was also associated with altered states of consciousness. Some of the implications of this conclusion for understanding the meaning of entoptic elements, the diverse contexts of Upper Palaeolithic art, the co-occurrence of signs and representational art, and the origins of art are briefly considered.

Marcus 2004

Joyce Marcus & Kent V. Flannery, *The coevolution of ritual and society: New ^{14}C dates from ancient Mexico*. PNAS **101** (2004), 18257–18261.
New 14C dates from Oaxaca, Mexico, document changes in religious ritual that accompanied the evolution of society from hunting and gathering to the archaic state. Before 4000 B.P. in conventional radiocarbon years, a nomadic egalitarian lifeway selected for unscheduled (ad hoc) ritual from which no one was excluded. With the establishment of permanent villages (4000-3000 B.P.), certain rituals were scheduled by solar or astral events and restricted to initiates / social achievers. After state formation (2050 B.P.), many important rituals were performed only by trained full-time priests using religious calendars and occupying temples built by corvée labor. Only 1,300-1,400 years seem to have elapsed between the oldest known ritual building and the first standardized state temple.
calendars; Oaxaca

Wade 2009

Nicholas Wade, *The Faith Instinct, How religion evolved and why it endures*. (New York 2009).

Watson 2011

Ben Watson, *The eyes have it: human perception and anthropomorphic faces in world rock art*. Antiquity **85** (2011), 87–98.
Why do early artists draw eyes? The author argues that they reflect the evolution of the brain in its expressions of fear, love and behaviour, and invites us to apply this ethological approach more widely to the study of early symbolism.
Keywords: Palaeolithic art, hominins, ethology, behaviour, facial expression